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FACTORS INFLUENCING E-SERVICE SATISFACTION IN TERTIARY EDUCATION IN GHANA

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ABSTRACT

Empirical work on the quality, expectation, and loyalty of e-services and their implications on satisfaction in the sense of 'normal' service has not been carried out. With this in mind, this study analyzed the linkages between e-service quality (in this 'normal' service environment), e-service expectation, e-service satisfaction, and e-service usage frequency by using PLS-SEM-VB using questionnaire data collected from 360 students. The conclusions obtained suggested that the level of usage of E-service has only a positive direct impact on the quality of e-service and satisfaction of e-service. E-service expectations also have an indirect positive effect on e-service satisfaction through the frequency of use of the E-service. The consequence of these findings is that companies offering low-quality e-services are more likely not to satisfy their clients. In effect, will not affect their engagement but would still use the service for buying and re-purchasing purposes due to institutional purposes. The assumption in the case of the current study is that universities with better e-services should have students considering their e-services to be adequate and therefore consistent in using e-services to enhance learning and administrative communication.

1. INTRODUCTION

As a means of widening the market, web and internet innovation now serve as a vital resource for organizations to extend their operations and service offerings abroad at relatively lower costs (Swaia & Wigand, 2009). As a result, e-services have escalated over the years and shifted the business dimensions for both local and international businesses (Li, Liu, & Suomi, 2009) by emphasizing on high-quality offerings, customer expectations and convenience (Sohn & Tadisina, 2008). Unlike the past where online presence was the prerogative of retail companies, e-service is increasingly being embraced by solely service organizations and governments to enhance the quality of their services (Kim-Soon et al.,

2014) rather than the mere online presence for informative purposes; which has provided room for confusion in today's conceptualization of e-services.

The justification for this study can be found in Kilburn and Kilburn's argument (2003) that, apart from imparting knowledge, universities often are businesses. That suggests they can not continue to overlook growing trends in the market for e-services from their customers (students) and better compete. Moreover, Cronin et al. (1992) conclude that one of the most important problems influencing corporate strategy today is the quality of service, and the value it gives to its users / customers. They argue that consumer expectations have been greatly affected thereby influencing satisfaction rates. Thus the



standard of e-service can not be separated in this regard. According to Kim- Soon et al. (2014), universities have been at the frontline of online development mainly for educational and general populace admission purposes. Recent advances, even so, indicate that higher education institutions have now been going other than pure web presence to using the Internet network to exploit their resources, such as offering virtual classes to better serve the needs of both distant and on-campus students and faculty members (Kim-Soon et al., 2014; Sutarso & Auharmdi, 2011). In addition to using e-services to eradicate administrative costs by having students to conduct such self-services online (such as course registration, lecturer assessment, etc.), universities are now breaking domestic parameters through e-services and thus through the competitiveness of educational institutions at home or abroad. It's not extraordinary, however, that online university courses advertisements are still appearing everywhere on almost every web page today.

In an e-commerce setting, the concept of e-service quality has been established to include providing superior customer experience in pre-transaction, transaction, and post-transaction indicators (Zeithaml et al., 2002; and Santos, 2003). Even though the definition of quality and its calculation of services in relation to the SERVQUAL instrument has been explored in detail in multiple ways, its key constraint as addressed is its obvious lack of physical presence in e-services (Shapor et al., 2011; Cristobal et al., 2007; and Swaid & Wigand, 2009). Consequently, the subject has recently gained notable attention in both academia and industry.

However, the concerns that remain to be discussed include; how much attention higher learning educational institutions will pay to the expectations of their users and quality of the e-services they offer; and whether or not higher learning institutions in developed countries can benefit from paying closer attention to enhancing the quality of the e-services they provide to their students. Regardless, the main objective of this study is to find out the relationship between e-service quality, expectation and frequency of use and impact on satisfaction students deriving from e-services and whether universities in Ghana can benefit from paying more attention to maximizing the quality of e-services they provide.

Most recent researches have been adopting SEM (structural equation modeling) to investigate the developments of e-services models in higher educational institutions worldwide (Henry et al., 2017) but this research uses PLS (Partial Least Squares) SEM-VB (Structural Equation Modeling – Variance Based) to check an exploration model that is unique to previous literature.

A number of proposals are presented in the rest of this paper, based on literature. Subsequently,

the research design of our empiric study is clarified and the review and results are discussed. The findings are then debated and the management consequences are formulated. Finally, the drawbacks of this analysis and the path for further studies are discussed.

LITERATURE REVIEW

According to (Kilbum and Kilburn's 2014) not only universities set up to combat literature, they are also business entities. It was inferred that universities cannot continue to neglect, and remain highly competitive, the developments in the e-services market for their customers (students). Whereas, the quality of service is among the most important issues impacting business model today. The interplay of e-service quality, expectation and frequency of usage and its impact on customer satisfaction has been argued with uncertainty. So in this sense e-service quality cannot be out of the way. According to Kim-Soon et al. (2014), higher learning institutions have been at the forefront of online activities for the purposes of information and access to the general public. Nevertheless, recent developments indicate that universities are now going beyond that of a simple online presence to use the Internet network to coordinate their capacity to meet the needs of both distant students and faculties on campus (Kim-Soon et al., 2014; Sutarso & Auharmdi, 2011). Universities are now invading local boundaries through e-service and thereby intensifying competition between domestic and international educational institutions, given the fact that e-service is used to minimize administrative costs by enabling students to conduct such digital self-services. Therefore, it is no wonder that online ads of modern degree tend to pop up omnipresently on nearly every web page.

However, the main challenges that still need to be addressed in Ghana's systems include: how much emphasis higher education institutions must fasten to the reliability of the e-services they offer; as well as whether higher education institutions benefit from paying close attention to raising the quality of the e-services they provide to their students. Furthermore, the main objective of this study is to build a connection between the quality of e-services, expectations and their rate of use and the effect on the satisfaction that students end up receiving from e-services, as well as whether universities in Ghana will benefit from paying closer attention to optimizing the quality of the e-services they provide.

The case study model was fostered just so we could carry out this research in the real-life context of the student and get real-depth data (Saunders et al., 2007). The knowledge was gathered mainly using questionnaires from a sample of 360 undergraduate and graduate students from three colleges of the Kwame Nkrumah University of Science and Technology (KNUST).



1.1. THEORITICAL REVIEW

1.1.1. CUSTOMER SATISFACTION THEORY (CSAT)

Customer Satisfaction (CSAT) is a commonly used primary quality metric that measures how happy users are with the organisation's goods or services. It is a psychological condition, calculated by the expectations of the customer (Oliver, 1977; 1980). This is an indicator of how the products or services delivered by a firm meet or exceed consumer expectations. Customer satisfaction is identified as the number of customers or percentage of total customers whose engagement with a business, its products or its services (ratings) exceeds the specified satisfaction targets (Farris, Paul W 2010). In the literature, satisfaction antecedents are studied from various perspectives.

1.1.2. SERVICE QUALITY THEORY (SERVQUAL)

SERVQUAL is a multi-dimensional research method capable of capturing customer preferences and perceptions of a service in the five dimensions that are considered to represent service quality. SERVQUAL relies on the concept of expectation-disconfirmation, which practically means that service quality is interpreted as the extent to which customers' quality expectations regarding pre-consumption are confirmed or disconfirmed by their post-consumption expectations. Once a team of academic researchers (A. Parasuraman, Valarie Zeithaml and Leonard L. Berry) first published the SERVQUAL questionnaire in 1985 to assess quality in the service sector[1], it marked a revolution in the calculation methods used for quality service research. The instrument's diagnostic value is provided by a service quality model, which forms the conceptual basis for scale production (i.e. instrument or questionnaire). The instrument has been widely used and found to be relatively robust in a number of environments and cultural settings. In the area of service quality it has become the standard measurement scale. This has faced some criticism from researchers, despite the long-standing interest in SERVQUAL and its variety of context-specific applications.

1.1.3. TECHNOLOGY ACCEPTANCE MODEL (TAM)

In evaluating processes and parameters that consumers use in their evaluation of e-service quality, several dimensions or conceptualization of e-service quality have been defined by several authors and for the variety of online retail and service outlets based on the Technology Acceptance Model(TAM), Theory of Reasoned Action(TRA), Theory of Planned Behavior(TPB) and theories on e-service quality. Davis (1989) first modeled TAM to explain employees' acceptance of a new IT focused on two

variables: Perceived Usefulness and Perceived Usefulness. In other phrases, people's behavior towards a technology (acceptance and manner of use) is determined by their desire to make easy use of the new technology and how it would allow them to perform their tasks more efficiently and effectively.

1.2. PREVIOUS RESEARCHES IN THE FIELD

1.2.1. E-SERVICE QUALITY

Santos (2003, p. 235) defined e-service quality as "an overall consumer assessment and judgment on efficiency and e-service quality in the online market." Parasuraman et al. (2005, p. 217) described e-service efficiency as "the extent with which a website renders efficient and reliable shopping, buying and delivering goods and services." Seven e-SQ dimensions defined by Parasuraman et al. (2005) are opted to be used in this study to measure presumed e-service quality of the service. The parameters constitute of four E-S-QUAL dimensions (efficiency, computer accessibility, compliance and privacy) and three E-RecS-QUAL parameters (responsibility, payment and contact). The first four dimensions of E-SQ affect core online operation, while the remaining three dimensions contribute to service recovery. That is, if customers have no complaints with the platform, E-S-QUAL is related to consumer expectations of e-service quality (Yang and Fang, 2004), whereas E-RecS-QUAL deals with online shopping complications (Nusair and Kandampully 2008).

Yet e-services act as a two-edged sword of competition. It also provides resources that make it much easier for customers to navigate, win their trust and encourage repurchase / revisit just as much as the web network makes it interesting competition. The volatile nature of online marketing thus suggests that online businesses need to build additional strategic capacity to overcome these environmental unique challenges (Wang, 2003; Chaffey, 2009). With e-services becoming the current competitive dimension among B2C / e-commerce firms, businesses need to work on delivering high-quality internet services regardless of the type of company and the product or service offered (Swaid & Wigand, 2009; and Wang, 2003). More than 68% of customers leave a company due to poor service experience and other less important factors such as cost (10%) and quality problems (17%) (Feinberg et al., 2000 cited in Chaffey, 2009). In keeping with this, e-service is increasingly becoming a critical determining factor for attracting and retaining students; hence the need for e-service attention and success from institutions (Li & Suomi, 2009).



AUTHORS	CONCEPTUALISATION	DIMENSIONS
Swaid & Wigand (2009)	Explored e-retail service quality dimensions on various loyalty types (loyalty preferences, cost sensitivity, and complaining behavior)	Website usability, Information quality, Reliability, Responsiveness, Assurance and Personalization
Cristobal et al. (2007)	PeSQ (Perceived Service Quality) is a predictor of customer satisfaction and loyalty for buyers and searchers of data.	Web design, Customer service, Assurance, and Order management
Parasuraman, Zeithaml, & Malhotra (2005)	E-ServQual Scale: Developed a more retail-oriented scale integrating the dimensions of digital service recovery	Efficiency, fulfillment, system availability, privacy; responsiveness, compensation, contact.
Wolfinbarger & Gilly (2003)	The researchers ' eTailQ dimensions were used to predict overall quality correlation across varied e-service users (browsers, goal-oriented, regular consumers, books / music, auction, etail, etc.).	Completion / reliability, website design, customer support and privacy / security
Loiacono et al (2002)	Built 12 WebQual dimensions and used them to predict consumers' intention to purchase and revisit through product websites (CDs and Books) and service (airline and hotel reservations).	Tailor-made communication, confidence, response time, ease of comprehension, intuitive operations, visual appeal, creativity, emotional appeal, clear image, online Completeness, and Relative Advantage.
Yoo & Donthu (2001)	Conceived as' SiteQual' an e-service' online shopping,' a place to browse,	Ease of Use, Aesthetic Design, Processing Speed, and Security

Table 1: Key contributions in understanding the concept of e-service quality

While in some dimensions the two structures (SERVQUAL and E-SQ) are equivalent, e-services have distinct features based on the content delivery system, service quality and product category (Collier & Bienstock, 2006; Li & Suomi, 2009; Swaid & Wigand, 2009; Zeithaml et al., 2002); For example, some authors argue that the mere exclusion of physical persons, the technology-based delivery mechanism and the self-service elements in e-services indicate the need for dimensions such as trust, ease of use, website content and functionality at the expense of professionalism, courtesy, cleanliness, friendliness, etc. (Cox & Dale, 2001; Li & Suomi, 2009). Along with several other researchers from the fields of operation, efficiency, e-business and information management, etc., their work has provided a pool of expertise that offers insight into more field research and also serves as an invaluable guide to the industry. In the study of current e-services literature multiple dimensions of E-SQ have been discovered. Most of these dimensions cut through most studies; though definitions vary. Table 1 summarizes some of the contributors to the creation of E-SQ measurements based on literature and the main dimensions of current literature.

1.2.2. E-SERVICE EXPECTATION

Service quality perceptions have historically been conceptualized as the discrepancy between quality expectations and perceived service performance, based on the expectation-disconfirmation model

(Oliver, 1977, 1980) (Parasuraman et al., 1985, 1991a). As both the quality of the service and the level of prior expectations can impact the assessment of the service by a customer, and thus the degree of satisfaction for the provider, it is crucial for service providers to know how the customer arrives at a certain level of expectations, whether it is constant or can be affected and whether it is dimension specific. One aspect that influences the degree of expectations, found in previous research, is the customer's general demeanor towards service. Perhaps there is a distinction between positive and negative (Berry et al., 1993; Gwynne et al., 2000; Johnston, 1995). According to (Oliver RL, 1980), the system for actual confirmation of information starts with the initial expectations of individuals regarding a particular knowledge that they may acquire before the discovery process. And the new information is embraced by individuals and used. Individuals shape impressions of the website after a time of initial use, that is to say, whether it can boost their awareness or not. In essence, they assess a website's perceived performance against their original expectations, and decide to what degree their expectations are true. Since expectations and quality perceptions of consumers can vary from one to the other, assurance can be positive when the actual result is better than expectations. In this case the customer would be satisfied. Nonetheless, confirmation can be negative if perceived output falls short of expectations, and the



customer will be disappointed in this case (Liao C, et al 2007).

1.2.3. CUSTOMER SATISFACTION

In the marketing field, customer satisfaction has historically been studied as one of the important attitude variables which can influence consumer (student) behaviour. The majority of marketing literature satisfaction studies are based on the disconfirmation principle. This postulates that, the feeling of satisfaction is a function of contrasting experiences of the success of a good or service with expectations (Oliver, R. L, 1989).

Customers are known to rate products based on a standard set of parameters and attributes. Olshavsky and Miller (1972) and Olson and Dover (1976) advocated their study to control the actual quality of the product and their intention was to find out how the projected findings influence expectations. These studies have taken the discourse on making a distinction between expectations and perceived quality (Kucukosmanoglu, et al, 2010) In several research studies, scholars have been able to demonstrate that customer satisfaction has a strong emotional, i.e. affective, dimension (Westbrook, Robert A., 1991).

1.2.4. USER FREQUENCY

The level of e-service usage among customers / students is an significant issue in the competitive e-services environment. Number of studies indicate that loyalty is motivated by satisfaction, e-trust and standard of service. With tertiary institutions, Cleary has found out that institutional standards may also regulate the use of e-service for students. If students are expected to follow institutional requirements, then they would have no recourse but to do so. Customer / student loyalty was described as "a deep commitment to regularly repurchase or repatronize a preferred product / service in the future, culminating in recurrent purchases of the same brand or brand collection amid situational pressures and marketing strategies with the potential to trigger switching behaviors" (Oliver, 1999). The e-Loyalty system expands the conventional online loyalty model to customer behaviour. Cyr et al. (2007) defined e-loyalty as an desire to revisit or make a future transaction from a website. Strauss et al. (2009) defines e-loyalty as "the favorable attitude of the customer on to an e-commerce website, which tends to lead the customer to repeat purchasing behaviour." Numerous researchers have sought to find relevant antecedents and their position in e-loyalty development. Price of e-service, e-satisfaction, corporate image, word-of-mouth contact, perceived value have been suggested as an antecedent of loyalty (Wieringa and Verhoef 2007; Patterson and Smith

2003) and these variables are also taken as a motivating force for competitive advantage and business success. Satisfaction is generated when an individual assumes the other person has not only productivity but also useful indices (Flavian et al 2006).

RESEARCH HYPOTHESIS DEVELOPMENT AND CONCEPTUAL FRAMEWORK

1.3. HYPOTHESIS

1.3.1. THE IMPACT OF E-SERVICE EXPECTATION ON E-SERVICE QUALITY

Perceived quality may reflect perceived product or service performance (Rust RT. Et al 1999). Quality measurement in relation to expectation is the most prevalent quality viewpoint (Nelson R. et al. 2005). From the perspective of expectations, quality is characterized by alignment with customer standards that may contribute to performance, reliability and other qualities that are important to customers in forming their quality perceptions (Nelson R. et al. 2005). The perceived level of quality may either confirm or disconfirm a pre-expectation. In addition, anticipation and the perceived level of disconfirmation have quite a positive impact on satisfaction. To this point, if it is considered that disconfirmation has occurred, consumer satisfaction will increase or decrease from the initial expectation (Bhattacharjee A. 2001).

Given these insights from literature, the study proposes that:

H₁: Perceived E-service expectation has a positive influence on E-service quality among university students

1.3.2. THE IMPACT OF E-SERVICE EXPECTATION ON E-SERVICE SATISFACTION

In prior research the direct correlation between expectation and customer satisfaction was proposed. According to Bhattacharjee 2001, the direct connection between expectation and satisfaction can be explained by adaptation level theory, which states that humans evaluate stimuli relative to or as a deviation from an adapted level or baseline stimulus level, where that adapted level is defined by the nature of the stimulus, the psychological characteristics of the person experiencing. Therefore, the higher the expectations, the better the quality of the service or product and, conversely, the lower the expectations, the poorer the quality of the service or product.

Given these facts, we propose that; given these literary insights, the analysis suggests:



H₂: Perceived E-Service Expectation has a positive influence on E-Service Satisfaction among university students.

1.3.3. THE IMPACT OF E-SERVICE EXPECTATION ON E-SERVICE USAGE FREQUENCY

E-service expectations increase the students' preferences to adopt e-service. Postacceptance expectation as per (Oliver RL, 1980) is established by the first-hand experience of the customers and is more practical (Bhattacharjee, 2001). This postacceptance expectation is expressed as perceived usefulness in Bhattacharjee's research. Perceived usefulness can be interpreted as an individual belief or description of belief, such that perceived usefulness is a conceptual belief that stands out for IS usage (Davis F. 1989), usefulness is the only belief that reliably controls user expectation across the temporal stages of the use of information systems; thus, it is an acceptable presumption in the sense of the use of information systems. Perceived usefulness is an significant variable that influences user post-adoption decisions, as users are likely to re-evaluate their early acceptance decisions at this point and make their decisions on prolonged use.

Given these insights from literature, the study proposes that:

H₃: Perceived E-expectation has a positive influence on E-service usage frequency among university students.

1.3.4. THE IMPACT OF E-SERVICE QUALITY ON E-SERVICE SATISFACTION

It is held that appreciating e-service, which is a kind of self-service from the customer / student standpoint, is close to adopting new information technology (Parasuraman et al., 2005). Several literature-wide studies (Zeithaml et al. 2002; Loiacono et al. 2002; Yi & Hwang 2003; Monsuwé et al. 2004; Parasuraman et al. 2005; Ramayah et al. 2012; Al-adwan & Smedley 2012; and Rare 2014) have relied on these theories to explain the use of customer expectations in evaluating E-SQ (as discussed above) and the resulting effect on consumer behavioral motivations. Hence, this work draws valid conclusions from these observations to conceptualize the relationship that emphasizes university E-SQ, student satisfaction, and utilization rate of university e-services.

Given these insights from literature, the study proposes that:

H₄: perceived e-service quality has positive influence on student's satisfaction of university's e-service

1.3.5. THE IMPACT OF E-SERVICE USAGE FREQUENCY ON E-SERVICE QUALITY

For this study, the student loyalty (as told by the satisfaction level and perceived e-service quality) was calculated for terms of their rate of use of the university's digital services. A research by Cristobal et al. (2007) on the causality between perceived e-service quality, satisfaction and website loyalty between customers and data searchers found that website loyalty is determined significantly by satisfaction. Furthermore, Ramayah et al. (2012) attempted to examine the relationship between perceived consumer interest and user satisfaction and the resulting impact of satisfaction. It was concluded from their findings that perceived quality, which includes the dimensions of service quality, quality of information, and quality of processes, positively influences customer satisfaction, and that user satisfaction also directly affects the intention of continued use of the program. Kim-Soon et al. (2014) also found that e-services reacted positively to the e-services utilization rate to encourage education, research and interaction. According to Mohsan and Nawaz (2011), satisfaction is a very important measure of loyalty and while satisfaction can exist without loyalty, loyalty can hardly be without satisfaction. Nonetheless, they concluded that the three principles of e-service quality, satisfaction, and loyalty were for sure closely interdependent.

In view of these evidences, the study proposes that:

H₅: Perceived frequency of usage on E-Service has a positive influence on Quality of e-services among university students.

1.3.6. THE IMPACT OF E-SERVICE USAGE FREQUENCY ON E-SERVICE SATISFACTION

The level of electronic usage has a positive impact on satisfaction of the electronic service when the students' standards are met. The standard of e-services also has a driving impact on student usage frequency (Zeithaml et al. 2002; Loiacono et al. 2002; Yi & Hwang 2003; Monsuwé et al. 2004; Parasuraman et al. 2005; Ramayah et al. 2012; Al-adwan & Smedley 2012; and Rare 2014). University prerequisite has also a regulating effect on frequency of usage to a certain degree. If students are expected to fulfill the requirement of universities, they have no choice but to do so. They may not be so pleased or fulfilled with the service, but they do have to fulfill their school requirements.

Given these insights from literature, the study proposes that:

H₆: Perceived E-User Frequency has a positive influence on E-Satisfaction among university students.

1.4. CONCEPTUAL FRAMEWORK

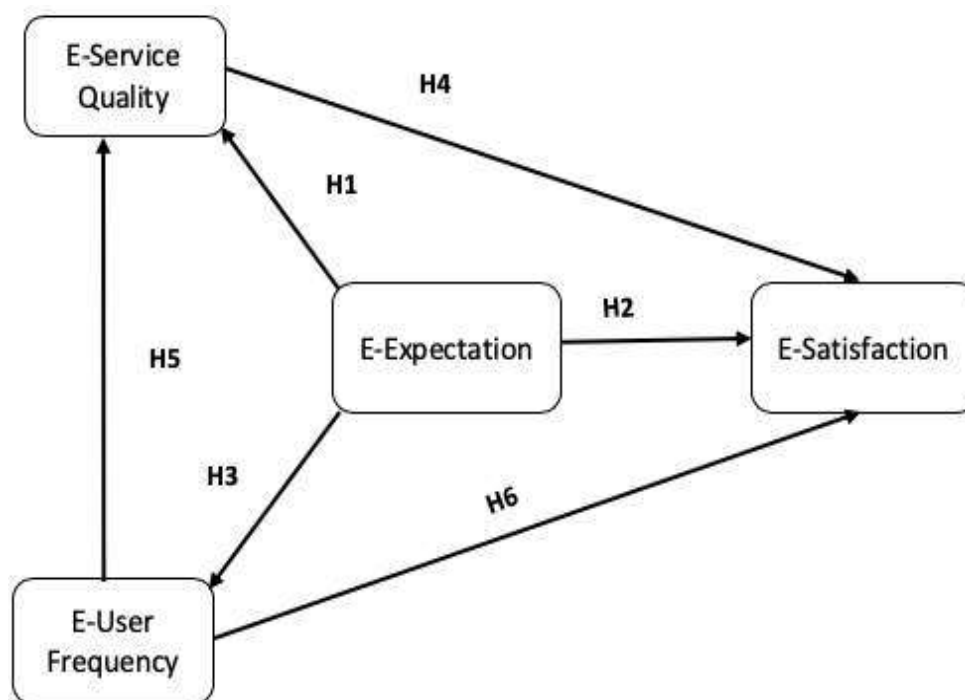


Figure 1: A conceptual framework of the study.

METHODOLOGY

1.5. RESEARCH DESIGN AND SAMPLING

The general scope of the analysis is a contrast between e-services in higher education institutions in Ghana. Kwame Nkrumah University of Science and Technology is the focal institutions used for this research.

The research design adopted for this research will follow both quantitative and qualitative approaches. This type of study design is usually used by researchers when there is a problem identified in an environment which should be addressed to ensure a fundamental understanding of challenges and derive means for solving the problem. According to (Yin, 1984) descriptive survey involves the collection of data aimed at answering questions concerning the present status of a phenomenon.

Data would be obtained from students at Kwame Nkrumah University of Science and Technology (KNUST). Chose to focus on KNUST as one of the first universities in the sub-region to introduce and pioneer internet-based teaching, research, learning and networking applications with established education stakeholders.

The questionnaire will be designed mainly for some of students. The questionnaire will provide with a covering letter which introduces the researcher and explains the purpose of the study, the method of

responding and the security of respondent's information will also be assured in order to encourage high response rate. Each questionnaire is divided into two parts; the first part is based on the socio demographic information while the latter part is based on the knowledge, attitude and practice of the respondent.

1.6. DATA ANALYSIS

SEM-VB (Structural Equation Modeling-Variance Based) was used to test the exploration model using the software SmartPLS 3.0 (Ringle, Wende, and Becker, 2015). The primary reason for choosing SEM as a factual technique for this study is that SEM is presenting a synchronous investigation that prompts rapidly reliable evaluations (Isaac, Abdullah, Aldholay, and Ameen, 2019; Isaac, Abdullah, Ramayah, and Mutahar, 2017; Mutahar, Daud, Thurasamy, Isaac, and Abdulsalam, 2018).

1.7. MEASUREMENT MODEL ASSESSMENT (RELIABILITY AND VALIDITY ANALYSIS)

The individual Cronbach's alpha, the composite unwavering quality (CR), The normal change extricated (AVE), and the factor loadings surpassed the recommended worth (Kline, 2010; Hair, Black, Babin, and Anderson, 2010) as outlined in Table 2. How much the articles recognize among ideas or



measure various develops is shown by discriminant legitimacy. Fornell-Larcker was utilized to examine the estimation model's discriminant legitimacy. *Table 3 demonstrates the findings for discriminatory validity by using the Fornell-Larcker condition.* It was found that the AVEs' square root on the diagonals is greater than the connections among develops (relating line just as section esteems), proposing a solid relationship between the idea and

their separate markers in contrast with different ideas in the model (*Fornell and Larcker, 1981; Chin, 1998*). As per Hair et al. (2017), this shows great discriminant legitimacy. Moreover, exogenous builds have a connection of under 0.85 (Awang, 2014). Eventually, both buildings were pleased with their discriminatory validity.

Factor loading for indicators of latent constructs

Factor loading for indicators of latent constructs						
Variables	Construct	Loadings	AVE	CR	Rho_A	Cronbach's Alpha
E-service expectation			0.636	0.874	0.915	0.817
	EXP1	0.706				
	EXP2	0.864				
	EXP3	0.821				
	EXP4	0.791				
E-service quality			0.668	0.947	0.940	0.937
	CON3	0.877				
	DES4	0.723				
	RES1	0.785				
	RES2	0.796				
	RES3	0.786				
	RES4	0.865				
E-service satisfaction			0.717	0.910	0.866	0.866
	SAT1	0.753				
	SAT2	0.880				
	SAT3	0.855				
	SAT4	0.891				
E-service user satisfaction			0.645	0.879	0.834	0.817
	USF1	0.827				
	USF2	0.783				
	USF3	0.866				
	USF4	0.731				

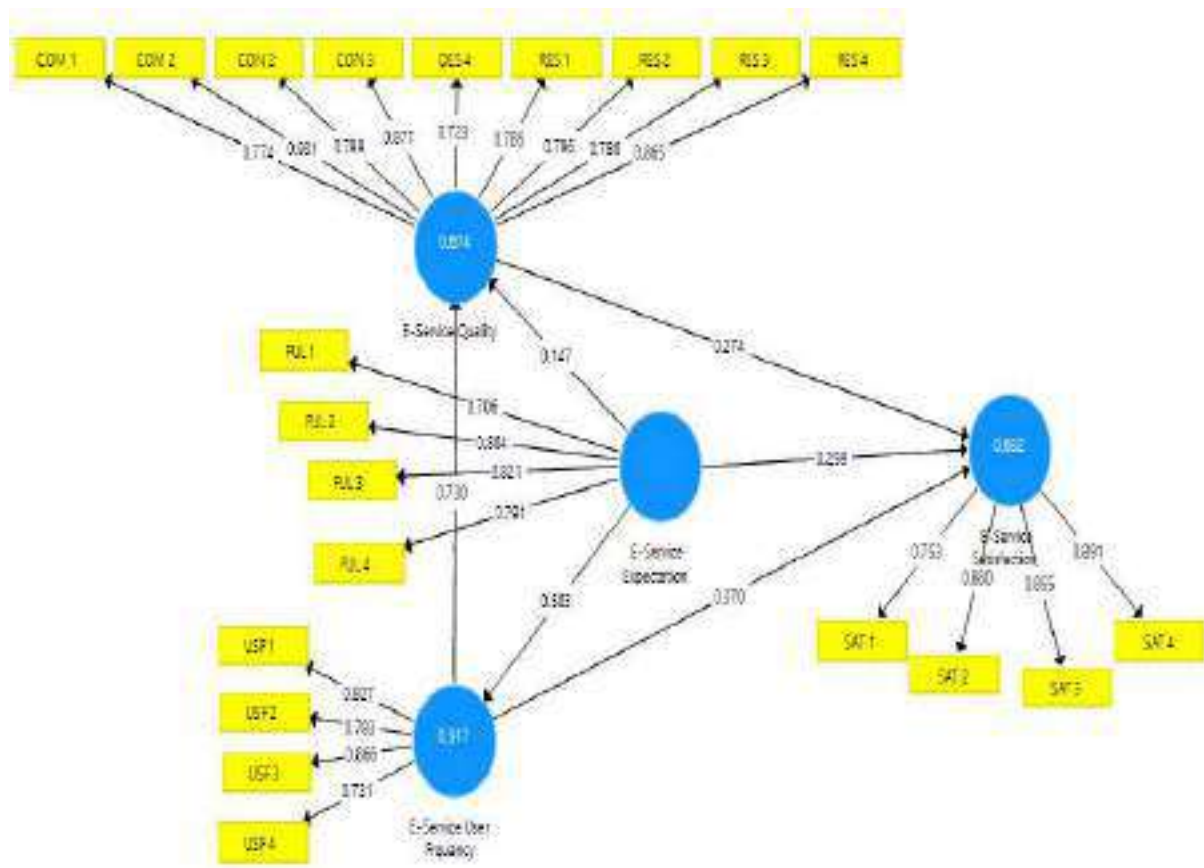
**** Note:** CR = Composite Reliability, AVE = Average Variance Extracted.

Table 3. Discriminant validity (Fornell-Larcker Criterial)

	ESQ	ESE	ESS	ESUF
ESQ	0.798			
ESE	0.557	0.817		
ESS	0.660	0.741	0.847	
ESUF	0.563	0.812	0.761	0.803

*** Note:** Diagonals are the square root of the average variance derived while the other entries are the correlations. Key: ESQ-electronic service Quality, ESE-electronic service expectations, ESS-electronic service satisfaction, ESUF-electronic service usage frequency.

****Model fit** (NFI = 0.432, chi-square = 487.077)



Presenting the final path model

1.8. STRUCTURAL MODEL ASSESSMENT

The Smart PLS model (**Figure 2**) is authenticated by Endogenous Latent Variable and Goodness of fit (GoF). The proposed goodness of fit is 0.5013 (RMS-Theta) which surpasses the suggested threshold values of $GoF > .36$ suggested by **Woetzel et al., (2018)**. Thus, this study confirmed and concluded that the research model developed by the researcher has an on the whole or overall goodness of fit. Smart PLS software was used to observe the structural model as confirmed in the research. Path coefficient assessment (**table 4 and figure 3**) is included in the structural model indicating the power of the relations

among the R-square value (**Appendix 2**), independent variable, and dependent variable. The structural model can be checked by beta (β), R^2 and corresponding t-values using a bootstrapping technique with a resample of 5,000 (Hair, Hult, Ringle, & Sarstedt, 2017). A 5 percent significance point ($p < 0.05$) is used as a statistical inference test. The degree of significance using the magnitude of the equivalent estimate of the factor between the constructs is shown in the corresponding t-value.



Table 4 and figure 3 briefs the result of the structural model.

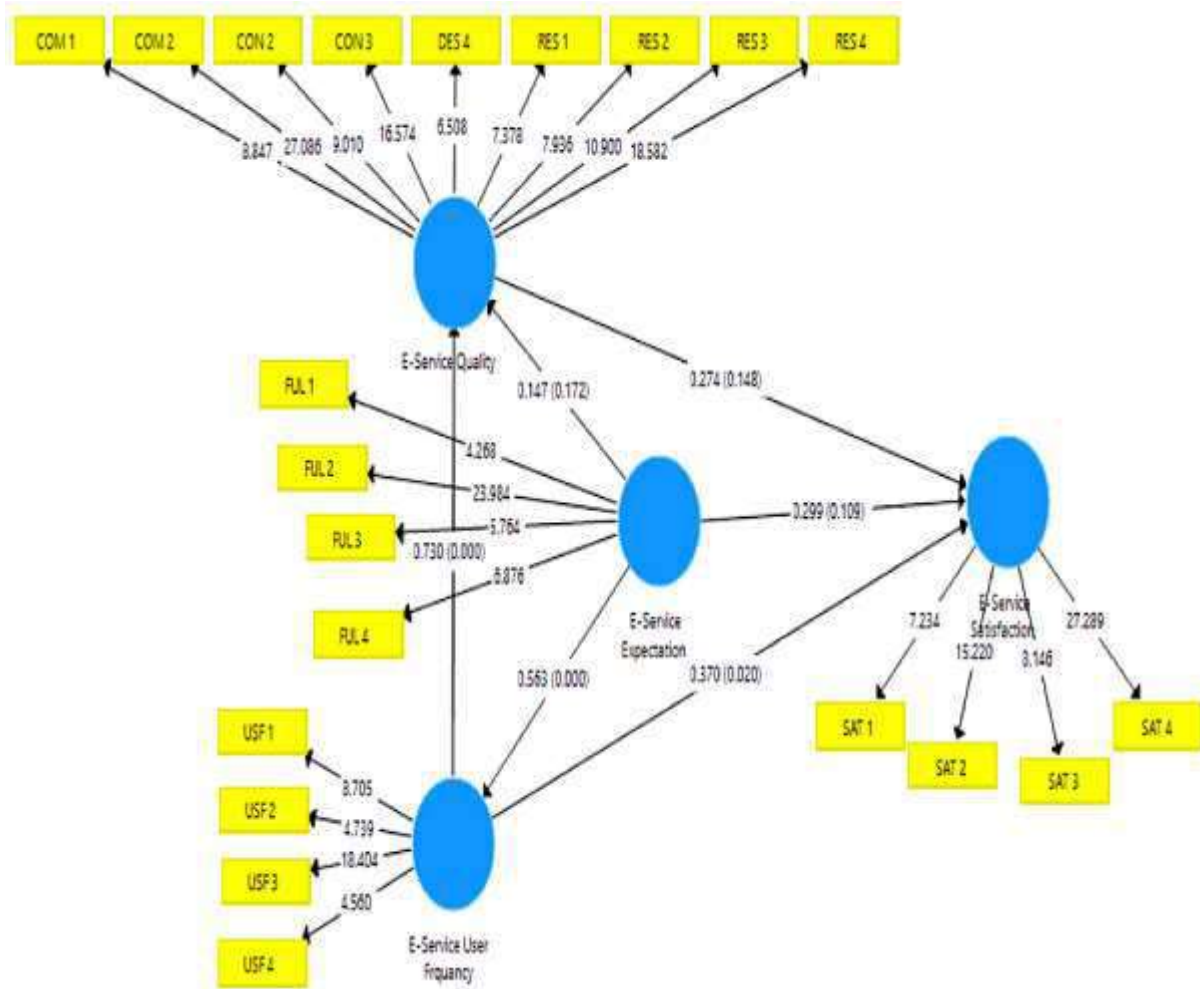
Path Coefficients along with their bootstrap values and 'T' Values

Factors	Original sample (O)	Sample mean(M)	Standard deviation (STDEV)	T statistics (10/stdevl)	Decision	P values
E-service expectation -> E-service quality	0.147	0.163	0.107	1.3969	H1 = Not supported	0.172
E-service expectation -> E-service satisfaction	0.299	0.302	0.186	1.605	H2 = Not supported	00.109
E-service expectation -> E-service usage frequency	0.563	0.597	0.128	4.391	H3 = Supported	0.000
E-service quality -> E-service satisfaction	0.274	0.281	0.189	1.450	H4 = Not supported	0.148
E-service usage frequency -> E-service quality	0.730	0.719	0.096	7.585	H5 = supported	0.000
E-service usage frequency -> E-service satisfaction	0.370	0.364	0.159	2.325	H6 = supported	0.002

****Path coefficient bootstrapping. T Statistic > 1.96 for 5%; $p < .005$**

The relationship between E-service Expectation and E-service quality was not supported and insignificant with the original sample (β) = 0.147, statistics (t) = 1.3969 and significant value (p =[0.172]) > 0.005 indicates that E-service quality is not influenced directly and positively by E-service Expectation. The relationship between E-service Expectation and E-service satisfaction was not supported and insignificant with the original sample (β) = 0.299, statistics (t) = 1.605 and significant value (p =[00.109]) > 0.005 indicates that E-service satisfaction is not influenced directly and positively by E-service Expectation. The relationship between E-service Expectation and E-service quality was supported and significant. With the original sample (β) = 0.563, statistics (t) = 4.391 and significant value (p =[0.000]) < 0.005, indicates that E-service usage frequency is influenced directly and positively by E-service Expectation. The relationship between E-

service Quality and E-service satisfaction was not supported and insignificant With the original sample (β) = 0.274, statistics (t) = 1.450 and significant value (p =[0.148]) > 0.005, It has been indicated that E-service satisfaction is not influenced directly and positively by E-service Quality. The relationship between E-service Usage frequency and E-service quality was supported and significant. With the original sample (β) = 0.730, statistics (t) = 7.585 and significant value (p =[0.000]) < 0.005, It indicates that E-service quality is influenced directly and positively by E-service Usage frequency. The relationship between E-service Usage frequency and E-service quality was supported and significant. With the original sample (β) = 0.370, statistics (t) = 2.325 and significant value (p =[0.002]) < 0.005, It indicates that E-service quality is influenced directly and positively by E-service Usage frequency.



DISCUSSION

The study's primary focus was to analyze the correlation between KNUST's e-service quality (e-SQ), e-service expectation, and e-service use frequency, and the impact it has on student satisfaction. Through the use of a much broader conceptualisation of E-SQ, CSAT and EDP, the findings of our study provide support for the instrument's applicability in pure service setting, such as an educational environment.

The descriptive results showed that while e-service quality and expectations for e-service were not satisfactory, students were somewhat impressed with the university's e-services; also, the frequency of use was high. The results also indicated that e-service quality and e-service expectations have a negative effect and a negative impact on satisfaction, but e-service usage frequency has had a significant positive effect on e-service quality and e-service satisfaction, thus supporting the study's hypotheses 5 and 6. These results are consistent with some previous research findings by authors such as Wolfenbarger and Gilly (2003); Ozkan and Koseler (2009); Al-Mushasha and Nassuora (2012); Ramayah et al. (2012) and Sanayei and Jokar (2013). The insignificant non-supportive

effect of e-service expectations directly on e-service satisfaction, except interposed by e-service usage frequency in the linkage; suggests the tendency for students to use frequency to serve as a conduit to transmit the positive effect of e-service expectation on e-service satisfaction. This finding reflects established literature in both the retail and educational settings on this topic. For example, in their study, Shapor et al. (2011) and Gummerus et al. (2004) denied the recognition of loyalty as an antecedent for satisfaction in the banking sector; which was extended by Mohsan and Nawaz (2011) that while loyalty could exist without it leading to customer satisfaction, loyalty could not exist without satisfaction. Other similar studies (see Cristobal et al., 2007; Sanayei & Jokar, 2013) have reported similar mediating role of loyalty in the service quality-loyalty linkage. Further, Cristobal et al. (2007)'s findings on the causal relationship between e-service quality, satisfaction and website loyalty for buyers and knowledge searchers showed, among other things, that perceived e-service quality does not significantly predict website satisfaction (also in Sanayei & Jokar, 2013); except through loyalty. This therefore means that the finding of this study with



respect to hypotheses 5 to 6 largely affirm findings in existing literature. The study concluded that the average use of e-services offered by the university by the student was above average because the students considered the quality of e-services to be high. In this study the quality has no significant impact. There is hence an urgent need for the universities to improve the quality of the e-services delivered to students if they want to employ the full benefit of e-services to improve communication and cut administrative cost in the university's operations. They can do this by introducing policies and the necessary infrastructure to improve the quality of e-services and encourage the use of e-services among students, realizing the cost of investing in these infrastructure and the win-win advantage for both universities and students (Sutarso & Auharmdi, 2011).

CONCLUSION

This study indicates that the frequency of e-service use has a significant positive and important impact on the quality of e-service and e-service satisfaction in institutions of higher learning in Ghana. The findings indicate that if e-service quality is upgraded, it would result in higher e-price levels due to the high use of e-services in firms and organizations, which in turn will positively affect their willingness to buy and re-purchase intent. According to initial expectations, expectations of the students were high because these platforms had not been successful or were not previously used. As far as the current study is concerned, the inference is that universities with low-quality e-services will have students finding their e-services unsatisfactory and therefore inconsistent in their usage to enhance learning and administrative communication. This would help the universities cut the cost of physically interacting with their students. Because of this, we further conclude that the quality of e-services can have both financial implications for universities in terms of reducing administrative costs, as well as a ripple impact on the perception of quality by students on the university's reputation and competitiveness. This is in line with the findings drawn by Sutarso & Auharmdi (2011); Kim-Soon et al. (2014); and Kilburn & Kilburn (2014).

POLICY IMPLICATIONS

The political ramifications of the results of this study are that first; higher education institutions must get to know the perceptions of their students

and come to terms with the reality that the integration of quality e-services into their daily activities will not only be about serving their students with e-services, but that particular quality requirements must be agreed with the media as a matter of policy. While, according to the current report, the level of usage of students has a significant impact on the satisfaction of students, the pursuit of high quality e-service is no longer a choice for administrators of higher education institutions, as the nature of demand for education these days needs them to be able to deliver successful onshore, remote and offshore education.

Second, the instability of competition in today's world climate in general, and the higher learning institutions in particular, is exacerbated daily by the effects of internet technology. With distance learning on e-platforms, tertiary institutions in Ghana today slowly invade each other's territories. As a result, e-services for certain organizations have become a threshold requirement. Since the internet is an open forum, pure online presence is considerably longer. The motivation for success lies in the innovativeness of institutions capable of providing their students with a high degree of standard of service in their online experience.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The spectrum of this research was restricted to the Kwame Nkrumah University of Science and Technology, and even though the students of this university exhibited behavior that can be contrasted with the behavior of students at other universities in Ghana, the generalizability of this study's results would be improved if samples were drawn across all public universities. All the same, this does not greatly reduce the applicability of this study's results but future research may either concentrate on other or all public universities. A comparative analysis between public, private and international universities may also be performed to find out if the characteristics exhibited by students in public universities match those exhibited by students in private and international universities.



Appendix 1. OUTER LOADINGS

	Original sample (0)	Sample mean(M)	Standard deviation (STDEV)	T statistics(10/stdevl)	P Values
Com1<-E-service quality	0.774	0.769	0.087	8.847	0.000
Com2<-E-service quality	0.931	0.926	0.034	27.086	0.000
Con2<-E-service quality	0.799	0.793	0.089	9.010	0.000
Con3<-E-service quality	0.877	0.873	0.053	16.574	0.000
DES4<-E-service quality	0.723	0.713	0.111	6.508	0.000
FUL1<-E-service expectation	0.706	0.672	0.166	4.268	0.000
Full2<-E-service expectation	0.864	0.872	0.036	23.984	0.000
Full3<-E-service expectation	0.821	0.783	0.142	5.764	0.000
Full4<-E-service expectation	0.791	0.764	0.115	6.876	0.000
RES1<-E-service quality	0.785	0.761	0.106	7.378	0.000
RES2<-E-service quality	0.796	0.791	0.100	7.936	0.000
RES3<-E-service quality	0.786	0.788	0.072	10.900	0.000
RES4<-E-service quality	0.865	0.865	0.047	18.582	0.000
SAT1<-E-service satisfaction	0.753	0.762	0.104	7.234	0.000
Sat2<-E-service satisfaction	0.880	0.879	0.058	15.220	0.000
Sat3<-E-service satisfaction	0.855	0.849	0.105	8.144	0.000
Sat4<-E-service satisfaction	0.891	0.897	0.033	27.289	0.000
USF1<-E-service user frequa	0.827	0.833	0.095	8.705	0.000
USF2<-E-service user frequa	0.783	0.760	0.165	4.739	0.000
USF3<-E-service user frequa	0.866	0.876	0.047	18.404	0.000
USF4<-E-service user frequa	0.731	0.708	0.160	4.560	0.000

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COOLING SYSTEMS FOR PHOTOELECTRIC MODULES

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ANNOTATION

In this paper, the structural elements of the cooling of hybrid solar collectors (HSC) are considered. A comparative analysis of the energy characteristics of domestic and foreign structures has been carried out in order to increase the efficiency of similar installations.

KEY WORDS: *renewable energy sources, solar energy, photovoltaic module, hybrid solar collector, efficiency, design, cooling, energy characteristics.*

INTRODUCTION

At the present time, there is an increase in energy consumption, at the same time, there is an increase in electricity prices and a decrease in reserves of traditional resources. In this regard, developments in the field of renewable energy sources (RES) are becoming relevant. Solar energy is one of the most promising and actively developing types of renewable energy sources. In this regard, it is necessary to stimulate further growth in the consumption of such types of energy as solar, wind, biogas and hydropower. Traditional sources of energy do not always allow to provide electricity, heat, and water supply to the population living in remote and hard-to-reach areas, as well as seasonal workers and scientific expeditions. As the operating temperature rises, each type of solar panel behaves differently. So, for silicon cells, the nominal power drops with each degree of excess of the nominal temperature by 0.43-0.47%, cadmium telluride solar cells lose only 0.25%. To solve the problem of overheating of solar panels, for a number of years, work continues on the development and improvement of existing hybrid designs for air, water cooling, heat removal from panels, with forced cooling [1-3].

HSC research is based on the works of V.V. Kharchenko, V.I. Vissarionova, P.V. Tikhonova, B.A. Nikitina and others.

Foreign scientists: H. Sondag, D. de Vrieux, W. van Helden, R. van Solengen, A. Stenhofen, T. Chow, H. Wei and others.

Currently, researchers and scientists are considering technologies, materials, methods and solutions for the effective use of HSC. Hybrid photovoltaic thermal systems are considered in [4-6]. Hybrid photovoltaic thermal (HPVT) systems are very promising devices for collecting clean energy, which can be used both as a stand-alone system and in conjunction with other systems. This article shows the historical stages in the development and improvement of hybrid photovoltaic thermal HPVT systems to date. The results of the initial studies of HPVT systems, depending on the formulation of the research objectives, formed the main criteria for eliminating the shortcomings of the developments. The article discusses the main and improved varieties of solar collectors, working fluids, analysis methods for assessing performance, thermodynamic approaches, optimization of design parameters and mass flow rates, methods for increasing productivity and comparison of research results. In particular, various studies on optimizing the performance of the HPVT system in relation to the selected parameters were comprehensively considered, including various types of absorbers, cooling schemes, types of working fluids, design solutions of various sections of the system. HPVT collectors: For the first time, in the late 1970s, the features of flat HPVT collectors were outlined in the work of Russell and Kern. By using the calculation base of solar thermal collectors, a fundamental theoretical model of HPVT was derived. Then the well-known Hottel-Villier model was revised and applied by Florschutz for thermal



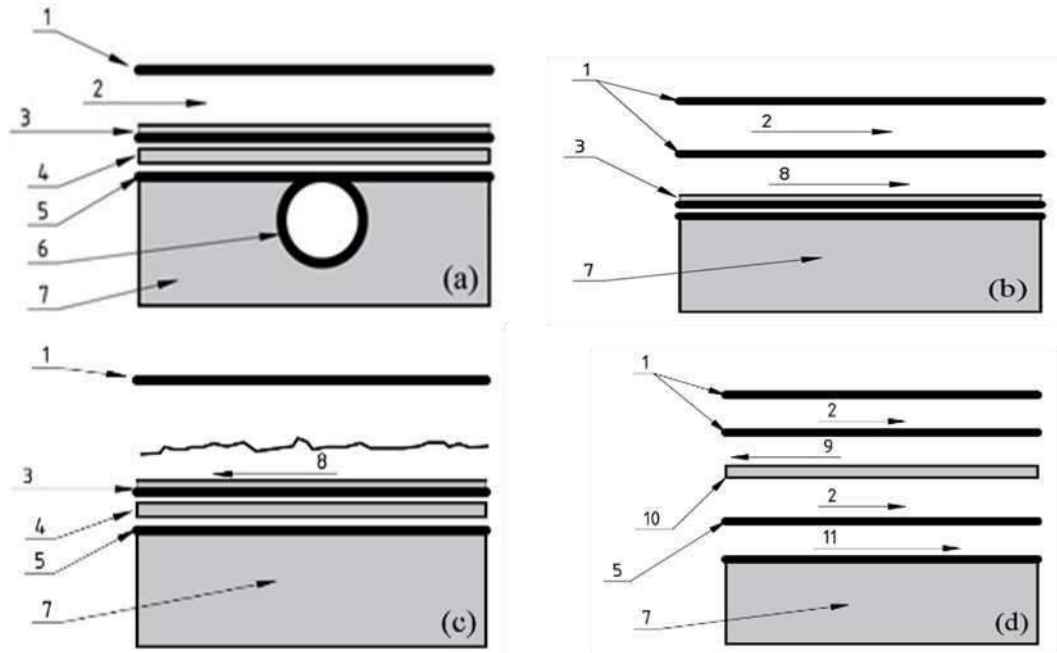
analysis of flat HPVT collectors. The new model assumes that the local electrical conversion efficiency is a linear function of the local temperature of the absorber.

The classification of flat HPVT collectors is carried out depending on the type of heat carrier, such as water, air, bifluid (water and air) and nanofluids. Sondtag studied the following types of HPVT collectors design: sheet-tube; channel; free flow; with a double absorber (fig. 1). The main structural element of the HPVT collector with a water coolant is shown in Fig. 1a, which consists of a conventional photovoltaic array embedded in a thermal collector module. It is noted that such designs have various disadvantages, for example, the scheme of a flat sheet-tube HPVT should be improved with a higher efficiency, and the heat exchange of the liquid in the channels of a flat HPVT of a collector should be carefully studied.

Moreover, it was shown that with a free flow of HPVT, the collector loses part of the accumulated heat due to evaporation. According to the research results, the best efficiency is achieved when using the circuit when the coolant channels are under a transparent photocell. It has been established that liquid HPVT collectors operate with a higher efficiency in comparison with an air coolant. Even if HPVT air collectors have lower costs, they are less preferable in the domestic environment. Flat HPVT collector units can be used as a stand-alone system or a system connected to the mains. Talavera showed that HPVT collectors connected to the main network are more profitable than stand-alone systems.

A comparative analysis was carried out to determine the capacity of the HPVT system of collectors and separately photovoltaic and thermal systems. Taking into account all the influencing factors, time-dependent mathematical models were built for the blocks of flat HPVT with the aim of using them in construction, and to demonstrate their superiority, the results were verified experimentally. The time-dependent mathematical model was found to successfully predict the performance of the three systems. The results confirm that HPVT collector

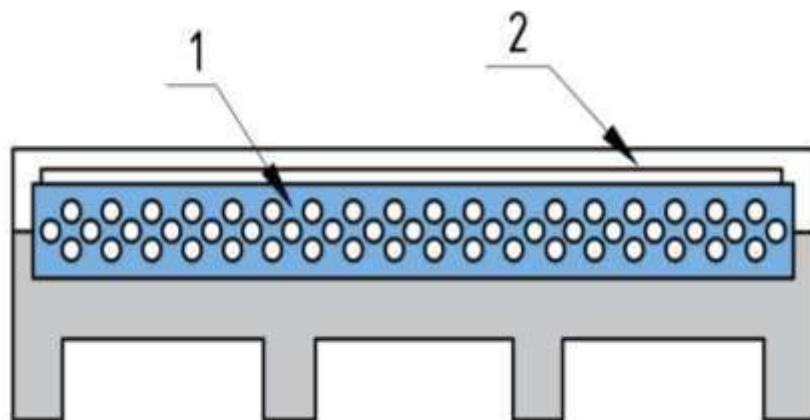
systems perform best in urban environments. Even if a single thermal system has a competitive thermal efficiency, the HPVT collector system has the best performance due to the simultaneous generation of electricity. Accordingly, the change in daily solar radiation levels plays an important role in the overall efficiency of the system. Singh and his laboratory in 2016 developed a model of a two-channel semi-transparent hybrid photovoltaic thermal collector, in which the air flow passes simultaneously both on the front and back surfaces of the cells of the photovoltaic cells, i.e. through the upper and lower air channels. According to the results, the overall exergy efficiency and the overall thermal efficiency were 5.78% and 35.41%, respectively. Wats and Tiwari in 2012 evaluated the thermal and exergetic efficiency of a HPVT collector with crystalline silicon cells (CSi) for a 21 m³ room and concluded that only 33% of thermal energy is efficiently used. In 2015, Yazdanpanahi conducted an experiment on a plant consisting of a conventional HPVT collector. The test results are used to validate a one-dimensional stationary thermal model and a photovoltaic current model with four parameters. There is a slight error between the mathematical model and the experimental test results. In addition, they add the effects of several different exergy losses to equations by introducing additional parameters. In 2016, Khelifa experimentally and theoretically analyzed a sheet-tube HPVT collector, simulating the heat transfer mechanism at each node selected on different layers. Tiwari assessed the benefits of the potential use of the HPVT collector as a solar greenhouse dryer for the climatic conditions of India. The payback period for the drying system is estimated to range from 1.2 to 10 years in relation to the efficiency requirement. In 2014, as part of the development of the "Green House" concept implemented at the Technical University of Denmark, Kazanchi assessed the efficiency of using HPVT collectors in houses, the soil base of which is used as a heat sink.



1- glazing; 2 - air; 3 - photovoltaic module; 4 - glue; 5 - absorber;
6 - water pipe; 7 - insulation; 8 - water; 9 - air-steam mixture;
10 - primary water channel; 11 - secondary water channel.
a) sheet-tube; b) channel; c) with free flow; d) with a double absorber.
Figure: 1. Longitudinal sections of various types of HPVT collectors.

The issue of optimized heat dissipation for thermo-photoelectric panels is considered in works [7]. Their work proposed an innovative hybrid solar panel that can be used as flooring or roofing. A special heat sink is used, which ensures the strength of the panel and increases the heat transfer efficiency in relation to the tube heat exchangers. The design of the heat sink used in the panel is optimized using a numerical model and algorithm. The article provides

some examples of optimization, as well as the results of a study to determine the distribution of speed and temperature in the cross section of the heat sink. The presented hybrid panel allows up to 20% increase in electrical efficiency compared to a conventional photovoltaic panel. In addition, it can be used in any natural and climatic conditions, as the construction of the unit is waterproof.



1 - heat absorber; 2 - photovoltaic cells.
Figure: 2. Sections of a hybrid solar panel.

The proposed hybrid solar panel consists of a layer of highly efficient monocrystalline

photovoltaic cells, which are placed on an aluminum absorber (Fig. 2). The cells of the photovoltaic cells

are attached to each other and then mechanically connected to the heat sink using a special heat-conducting paste, which ensures a satisfactory thermal contact.

The absorber consists of an aluminum block with internal parallel channels, which are staggered

(Fig. 2, 3). Inlet and outlet chambers are also created in the aluminum block. The water flow passes through the channels, absorbing the heat of the cells of the photocells.

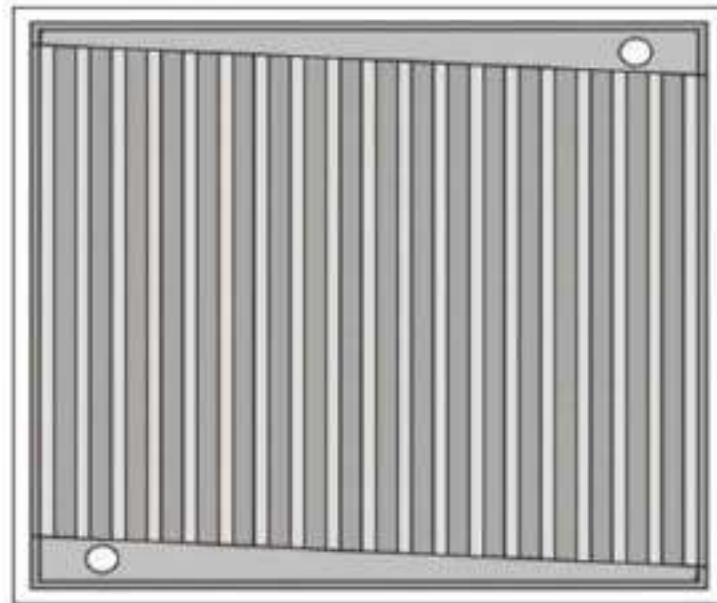


Figure: 3. Absorber sections.

The photovoltaic cells and the heat sink are bonded to the housing by cold curing epoxy resin. The upper coating of transparent resin allows the elements to be influenced by solar radiation, and the lower coating of the opaque resin prevents heat loss during radiation. Both resins provide good mechanical strength and thermal insulation for the entire hybrid panel. The absorber inlet and outlet are connected to connectors that provide a direct connection to the installation pipes.

Hydraulic and electrical connectors are integrated in the lower plastic housing. To study the characteristics of such a heat sink, a mathematical model was created that can reproduce the thermal and fluid dynamic changes caused by changes in the design and location of the channels.

The article by M. Abdelrahman et al. considers the issue of experimental research of various methods of cooling photovoltaic modules [8-9]. One of the most important problems in the use of photovoltaic systems is the low efficiency of energy conversion of photovoltaic cells, and, in addition, this efficiency decreases even more during the working period due to the increase in the temperature of the cells above the permissible limit.

To determine the efficiency of photovoltaic systems during operation, three cooling methods are used in experimental work: cooling with water under the film; direct contact cooling of the rear side of the photovoltaic system due to heat removal by water; a

combination of the previous two methods. An infrared camera is used to obtain the temperature distribution on the surface of the module.

Experimental measurements for three cooling experiments show that the temperature of the cooled photovoltaic module is 16 °C lower for a module cooled with water under the film, by 18 °C for a module with direct contact cooling of the rear side of the photovoltaic system due to heat removal by water and by 25 °C for the module using the combined method, respectively, compared to the uncooled module. Lowering the surface temperature of the module results in higher output power and higher efficiency of the module. The results show that the daily power output of the cooled modules increased by up to 22%, 29.8% and 35%, respectively, compared to the non-cooled module.

Internal dimensions of the finned flat liquid heat sink (90 × 66 × 4 cm). It is made of 2 mm thick galvanized sheet metal and insulated with 25 mm glass wool, which is mounted on the rear side by a photovoltaic system to ensure direct contact between water and the rear surface of the module (Fig. 4, 5). The heat sink has ribs to increase the rate of heat transfer from the photovoltaic module to the moving fluid. A DC water pump connected to the battery (see Table 1) is used to pump water from the reservoir into the channels for the cooled module. Then the heated water flows back into the tank, and this cycle is periodically repeated.

Table 1
Pump Specifications

Name	Characteristic/value
Power	4.3 W
Current and voltage	0.36 A and 12 V
Maximum flow rate	1.5 l/min

Also, in addition to the two previously considered methods, there is a third one, where simultaneous cooling of both the front and rear sides of the photovoltaic module is considered. The first pump is used to pump water through a perforated pipe installed on the top of the PV module in order to

create a thin water film over the front of the module (Fig. 4), the second pump is used to recirculate water through a ribbed channel attached under the PV module (Fig. 5).

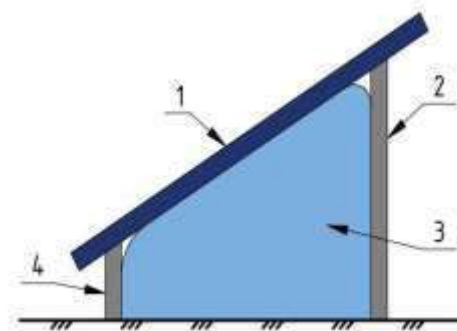


1 - perforated tube;
2 - microclimate; 3 - PVM; 4 - water film.

Figure 4. Cooling of the PVM surface by creating a thin heat-removing film from water.

In the article, B. Bhaskar et al. consider the issue of designing solar panel cooling systems in order to increase their electrical efficiency [10]. A photovoltaic solar cell generates electricity from solar radiation. The temperature of photovoltaic modules increases as they absorb solar radiation, resulting in reduced efficiency. This undesirable effect can be partially avoided by using a heat recovery unit with liquid circulation in a photovoltaic module. Such a block is called photovoltaic/thermal collector (PVTC).

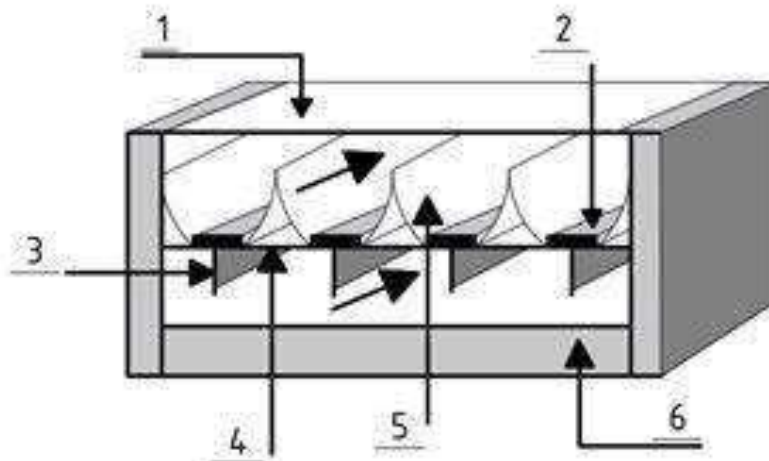
Objective B. Bhaskar et al. Is to develop a solar battery cooling system to increase its electrical efficiency, as well as obtain thermal energy. A hybrid solar system is being studied, which simultaneously



1 - PVM; 2, 4 - enclosing elements;
3 - flexible film; filled with water.

Figure 5. Cooling of the rear side of the PVM by recirculating water through the ribbed channels.

generates both electricity and thermal energy. This hybrid system consists of photovoltaic cells attached to the face of a T-shaped absorber. A simulation model of a single-pass finned solar collector was developed and performance curves were obtained. Performance analysis was performed using seven different gases to ensure maximum heat transfer with minimum mass flow and minimum number of fins. It was found that the most suitable gas is hydrogen. For hydrogen, the system requires a mass flow rate of 0.00275 kg / s, which is the lowest of all. The theoretical number of ribs required in this case is 3.46.



1 - glazing; 2 - solar battery; 3 - ribbing;
4 - absorber; 5 - parabolic concentrator; 6 - insulating material;

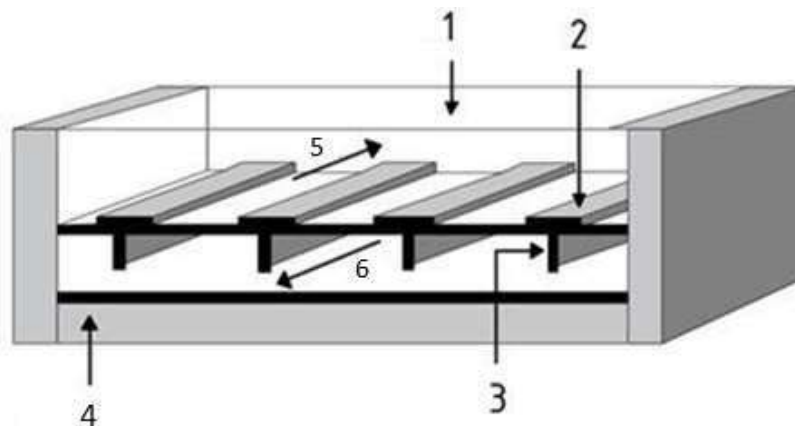
Figure: 6. Schematic model of a single-pass and two-pass solar collector.

A photovoltaic cell converts only a small part (less than about 20%) of the radiation into electrical energy.

Ibrahim Ali investigated a single pass solar air heater consisting of a photovoltaic cell with a parabolic collector and a finned heat sink as shown in

Fig. 6. The experiments carried out have shown that the electric power of the collector increases with the radiation intensity.

Othman designed a two-pass, photovoltaic, thermal, solar air heater.



1 - glazing; 2 - solar battery; 3 - ribbing;
4 - insulating material; 5 - air inlet; 6 - air outlet.

Figure: 7. Ribbed, double-pass, photovoltaic, thermal, solar air heater.

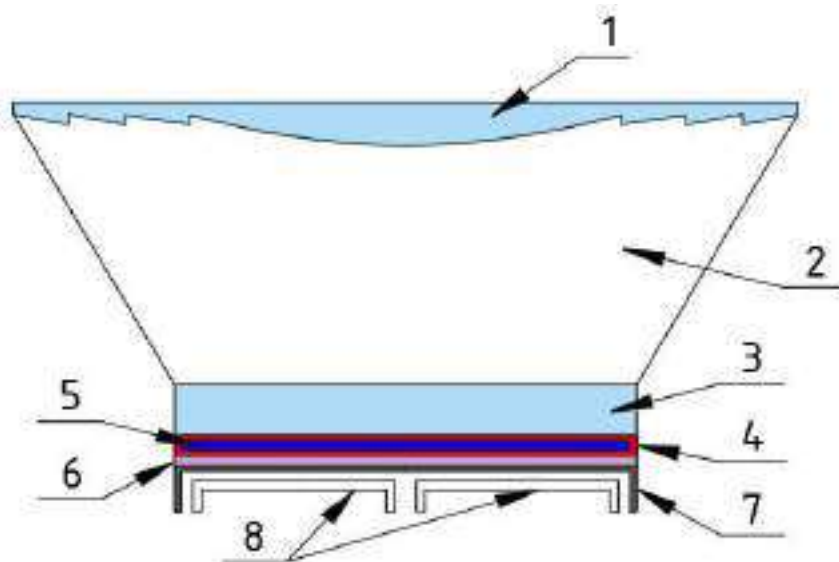
In this system, the ribs are introduced into a second channel parallel to the length of the manifold, as shown in fig. 7. Ribs on the back of the photovoltaic panel increase heat transfer to the air and improve the efficiency of the system.

But the low thermal conductivity of the air leads to poor heat transfer between the panel and the air flow. Therefore, the efficiency of such a heater is low.

The article by Ali Radwan et al. Proposes an algorithm for controlling photovoltaic systems with concentrators based on the use of microchannel heat sinks with nanofluids [11]. The authors of the article proposed a new cooling method for a photovoltaic system with a concentrator, which uses a wide-channel heat sink with nanostructured fluids. The developed three-dimensional model of heat transfer of a nanofluid flow in a wide microchannel heat sink

with a thermal model of a photovoltaic system with a concentrator. The model is verified using experimental and numerical data. The influence of the types of nanoparticles, volume fractions and the flow of the coolant in terms of the Reynolds number on the parameters of the solar battery is investigated. The results show that when using nanofluid (SiC), the chamber temperature is lower than when using nanofluid (Al_2O_3). An increase in the volume fraction of nanoparticles significantly reduces the temperature of the solar battery and increases their thermal and electrical efficiency. In addition, increasing the Reynolds number flow to a certain value significantly increases the electrical power. A further increase in the Reynolds number leads to a significant decrease in the power of the cells of the photocells. When using 4% nanofluid (SiC), the decrease in the maximum local temperature of the solar battery is in the range from 8 °C to 3 °C compared to water when the flux changes by Reynolds number from 12.5 to 250 and the solar energy concentration factor is 20 [12].

In the studies of the authors of the article, the characteristics of solar polycrystalline silicon under conditions of concentrated illumination equal to 20. Two different water-based nanofluids are used as coolants. Nanoparticles of aluminum oxide (Al_2O_3) and silicon carbide (SiC) with different volume fractions from 0 to 4%. It has been found that reducing the size of the nanoparticles improves the heat transfer characteristics. In addition, to achieve stability, a smaller nanoparticle size is required compared to a larger size. Thus, 20 nm nanoparticles are used in the simulation process. The selected nanoparticles are stable suspensions in water, since they have been comprehensively investigated in experimental works. Thus, these two nanofluids were chosen for modeling. The components of a photovoltaic system with a concentrator are shown in Fig. 8. In this system, a linear dual axis Fresnel lens is used to concentrate solar radiation on the target area of the solar cell.



1 - linear Fresnel lens; 2 - solar radiation falling at a right angle;
3 - glazing; 4 - photovoltaic cell; 5 - silicon plate; 6 - calculated area; 7 - polyvinyl fluoride;
8 - inlet and outlet of nanofluid mixture.

Figure: 8. Schematic diagram of a photovoltaic system with a linear concentrator based on a solar Fresnel lens.

Commercially available polycrystalline solar cells consist of a 0.2 mm thick silicon layer coated with an antireflection layer. These two layers are embedded in a 0.5 mm transparent EVA liner above and below the silicon interlayer to anchor it and provide both electrical insulation and moisture resistance. In addition, polyvinyl fluoride is used, which is a photostable layer with a thickness of 0.3 mm. Finally, this design uses a more transparent 3mm thick tempered glass cover. A simple wide microchannel heat sink with a plan view of 127.2 mm by 127.2 mm is used as a heat sink. and a channel height of 100 μm . The flow of

coolant in the middle of the solar cell comes in two directions. Aluminum is recommended as a heat sink material. A microchannel heat sink attaches to the back of the solar array to remove excess heat [13].

In the cell area, the size of the solar cell is 125 mm by 125 mm and the spacing between adjacent cells is 2.2 mm. Thus, the total size of the calculated area is 127.2 mm by 127.2 mm, including 1.1 mm EVA. To save computational time, especially in three-dimensional modeling of a two-phase flow, the effective area of the solar array



is divided into two equal symmetrical regions with dimensions of 127.2 mm by 63.6 mm.

CONCLUSION

PVM cooling by means of water recirculation through finned channels has the following advantages over the above-considered analogs:

1. Possibility of simultaneous generation of electrical energy and heat treatment;
2. Using the energy of the base (soil) for cooling, based on the natural recirculation of water (heat agent), the rear part of the PVM;
3. Lack of additional energy costs to create the microclimate of the installation.

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THE IMPORTANCE OF THE USE OF INNOVATIVE TECHNOLOGIES IN RAISING THE SPIRITUALITY OF YOUNG PEOPLE

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ABSTRACT

Currently, special attention is paid to the effective use of innovations based on new ideas and best international practices in the system of continuing education of the Republic of Uzbekistan. After all, the President of the Republic of Uzbekistan Sh.M. Mirziyoyev said, "Innovation is the future. If we want to start building our great future today, we must start with innovative ideas, innovative approaches. " Indeed, modern interactive methods, which are the basis of innovative technologies that serve to increase the learning activity of learners, have a special place in the experience of leading foreign countries in ensuring the quality and effectiveness of education, which is effectively implemented in the practice of the republican system of continuing education. This article discusses the important aspects of using innovative technologies to raise the spirituality of young people.

KEYWORDS: *spirituality, technology, innovation, interactive method, learning process, thinking, activism.*

DISCUSSION

It is known that the changes depend on the education system even they happen in the socio-economic, political and cultural spheres of our country, which determines the intellectual potential of the country in the future and these changes are key conditions for its development. All in all, the main aim of the radical reforms being carried out in our society is, first of all, to bring up the younger generation as spiritually mature and perfect people. In this regard, the role of the system of continuing education is enormous. Therefore, the growth of spiritual and intellectual potential of young people, its development at the qualitative level not only has an impact on the effectiveness of education, the improvement of the system in this area, but also significantly affects the growth of all areas of this social system.

President of the Republic of Uzbekistan Sh.M. Mirziyoyev emphasized the fourth point of the "Action Strategy" for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 in order to develop the social sphere, especially in the field of education. Therefore, special attention was paid to the promotion of research and innovation activities, the creation of effective mechanisms for the implementation of scientific and innovative

achievements in practice, specialized scientific and experimental laboratories at universities and research institutes, higher education the establishment of technology centers and technoparks as one of the most important directions in the development of education and science[1]. Indeed, one of the strategic directions in education today is the innovative activity of educational institutions. Understanding the need to reform the education system requires, in practice, the involvement of educational institutions in innovative processes. At the same time, modern requirements require educational institutions to combine theory and practice. Only in this way will we be able to bring up a spiritually mature person, a generation of healthy thinking in the future. One of the priorities of our society is to bring up a harmoniously developed generation. After all, only spiritually mature people can create a great future.

We believe that the main goals of high quality education today will be achieved through the development of the following areas:

- Educational institutions should be at a level that is above the level of training among competing professionals. To do this, the main goal must be consistent with the curriculum;
- The intellectual potential of the teaching groups should be increased so that it is up to



date. However, today's youth must have the ability to set goals and achieve them, to think independently at a high cultural level, and to find their place in life;

- The use of interactive (two-way) methods of teaching, as well as the organization of various advocacy activities aimed at the same goal;
- To be at the level of delivery of educational, scientific, literary and modern technologies to students, to provide the educational process with the necessary equipment and to publish news in newspapers and magazines in full and regularly;
- To determine the interest, desire and inclination of students to learn. It also organizes the study, use and more of the experience of advanced countries.

In the process of raising the level of education, first of all, to widely expand the exchange of experience with educational institutions of the Republic and foreign countries by improving the teaching skills of specialists of educational institutions and attracting them to educational institutions, teaching them in courses comprehension and memorization are achieved through the use of various interactive techniques. In this regard, high-quality education can be achieved by modernizing and equipping classrooms. One of the important tasks is to improve the quality of teaching and learning with the use of computers and video equipment, to provide young people with the necessary literature and to create conditions for their work. The main thing is that the younger generation is interested in learning, wants to learn new things, works hard and feels responsible. Therefore, the educational process should be based on the following important rules:

- to understand the psychological state of students;
- to be able to engage students in real-life problems;
- to teach young people to think in connection with theory and practice;
- to be able to work in groups with the younger generation;
- to reach the desired creative level achievement;
- the ability of teachers to work with young people, regardless of their scientific knowledge.

Such factors are especially important today, as this innovative process ensures the effectiveness of education through the continuous organization of teaching science through continuous education of subjects belonging to the category of national ideas and spirituality. Interactive technologies, which are the basis of innovative technologies, further intensify the activities of students in the deep understanding of

spirituality, national idea, national ideology, encourage them to think independently, activism, solidarity, teamwork. They encourage cohesiveness through beatings and are effective in enriching knowledge. The student's identity is placed directly at the center of the learning process. However, the effective use of forms of social training in the educational process in accordance with the national mentality, along with an in-depth study of historical and cultural heritage, will increase the desire to acquire advanced, modern knowledge. From textbooks created in educational institutions to classrooms and auditoriums, special attention should be paid to equipping them with social advertisements that provide spiritual and ideological education. Most importantly, it is necessary to explain that the national training program adopted in our country is a historical document adopted by our society to bring up well-rounded, educated, qualified youth and to mobilize all efforts to implement it.

The role and importance of modern teaching methods, that is, interactive methods, which are the basis of innovative technologies, in the educational process of educational institutions is incomparable. Provides students with knowledge, experience, and knowledge and skills related to pedagogical technology and their application in education.

Innovation means to innovate, to change something.[2]

Innovation in the system of continuing education is aimed at improving the quality of the field. Innovation is relevant, important, and consists of new approaches formed in the spiritual system. These approaches are born of initiatives and innovations and serve as a promising basis for the development of the conceptual content of national spirituality.

Innovation in the system of continuing education is aimed at improving the quality of spirituality. Innovation is relevant, important, and consists of new approaches formed in the spiritual system. These approaches are born of initiatives and innovations and serve as a promising basis for the development of the conceptual content of national spirituality.

Any innovation in spirituality cannot be an innovation. Therefore, it is important to distinguish between the concepts of "novation" and "innovation". The clear form, content and scope of the reform process are the basis for this. If the activity is short-lived and does not have the character of a holistic system, if the task is to change only some elements of a particular system, then we are thinking of novation. The concept of innovation is formed if the activity is carried out on the basis of a certain conceptual approach, and the result leads to the development of the system or its fundamental change. The criteria for both concepts are: novation takes place within an existing theory, is limited in scope and time, methods



are updated, and the result is an improvement on the previous system. Innovation, on the other hand, is systematic, good and sustainable, projects a new system of activities in a particular practice, and completely updates the positions of the subjects of practice. At the same time, the directions of activity will be opened, modern technologies will be created, new qualitative results of activity will be achieved, and as a result, the practice itself will be updated.

Innovative changes in the development of spirituality, the introduction of any innovations in the system is carried out directly through the renewal and transformation of the activities of the representative of the industry. Innovative activity is a continuous work on the basis of innovations, which is formed and improved over a long period of time. Innovative activity is aimed at solving a number of problems that have arisen as a result of the incompatibility of traditional norms with new social requirements or the conflict of the emerging norm of practice with the emerging norm. Innovation has a great impact on the development of ideological views through the constant introduction of innovations in socio-political life.

Pedagogical innovation is a process that prepares specialists to work in new conditions. It is desirable to create and implement new approaches to creative approaches based on previous knowledge and skills.

The goals of innovative education are:

- Ensuring a high level of spiritual, intellectual and personal development of students;
- Creation of new technologies, projects on the basis of new modern approaches and creation of new, appropriate types of curricula with their help;
- Creating conditions for students to acquire scientific thinking skills;
- Teaching methodology of innovation in socio-economic and professional spheres;
- Linking theory with practice and practice with production;
- Strengthening the base of teaching materials;
- Strengthening the social and economic foundations of the educational environment.

One of the most important tasks in educational institutions is to improve the quality of training of the harmoniously developed generation. Therefore, it is necessary to thoroughly review the system of education in all educational institutions of our country, using world experience, and put into practice the most optimal aspects. These are the processes that are characteristic of modern innovation in today's globalized world.

In conclusion, the development of the spiritual sphere in the system of continuing education through

the introduction of new innovative technologies directly ensures the effectiveness of education. It is expedient to further raise the principles of educating young people in the spirit of national and universal values on the basis of innovative technologies. Because it is the result of a strong need to understand our national identity. Universal values are always nurtured by national values, and serve to form and promote national spirituality. This is the need of the hour today.

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CONGENITAL BIRTH DEFECT: PERSPECTIVE TO THE DAY OF CONCEIVE OF A MENSTRUAL CYCLE

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ABSTRACT

The menstrual cycle is the regular natural change that occurs in the system, specifically the uterus and ovaries that makes pregnancy possible. The menstrual cycle consists of the follicular phase, ovulation, and the luteal phase. The median duration of a menstrual cycle is 28 days with most cycle lengths between 25 to 30 days. Ovulation takes place in med of cycle and Fertilization occurs after ovulation in fallopian tube. A sperm alive 4 days after discharged in female reproductive tract and ova survive 2 day after ovulation. So fertilization occurs almost at days 11th to 18th, rest days are called safe period. A disrupted cycle around the time of travelling is usually significant in relation to overall menstrual health. Climatic variations affects on woman menstrual cycles. In nearly 50% of cases the exact cause of congenital anomaly could not be identified, although there are some known risk factors which can be linked with the causation of malformation. Congenital anomalies can be caused by single gene defects, chromosomal disorders, multi-factorial inheritance and environmental factors. In a disrupted menstrual cycle, the day of ovulation varies and delay ovulation may be lead to congenital birth defect.

KEY WORDS: Menstrual cycle, Ovulation, Biological clock, Safe-period, Environmental factors, Congenital birth defect.

INTRODUCTION

This essay is primarily about impact of the conceive's day of a menstrual cycle on congenital birth defect:

Menstrual cycle: The menstrual cycle is the regular natural change that occurs in the system, specifically the uterus and ovaries that makes pregnancy possible. The menstrual cycle can be described by the ovarian or uterine cycle. The ovarian cycle describes changes that occur in the follicles of the ovary whereas the uterine cycle describes changes in the endometrial lining of the uterus. Both cycles can be divided into three phases. The ovarian cycle consists of the follicular phase, ovulation, and the luteal phase, whereas the uterine cycle consists of menstruation, proliferative phase, and secretory phase (C.C Charan chatterjee, 1995). The length of a menstrual cycle is the number of days between the first days of menstrual bleeding of one cycle to the onset of menses of the next cycle. The median duration of a menstrual cycle is 28 days with most cycle lengths between 25 to 30 days. The menstrual cycle may be divided into two phases: (1) follicular

or proliferative phase, and (2) the luteal or secretory phase. The follicular phase begins from the first day of menses until ovulation. The development of ovarian follicles characterizes this phase. The LH surge is initiated by a dramatic rise of estradiol produced by the pre-ovulatory follicle and results in subsequent ovulation. The LH surge stimulates luteinization of the granulosa cells and stimulates the synthesis of progesterone responsible for the mid-cycle FSH surge. Also, the LH surge stimulates resumption of meiosis and the completion of reduction division in the oocyte with the release of the first polar body. The luteal phase is 14 days long in most women. If the corpus luteum is not rescued by pregnancy, it will undergo atresia. The resultant progesterone withdrawal results in menses. The average duration of menstrual flow is between four and six days, but the normal range in women can be from as little as two days up to eight days. The average amount of menstrual blood is 30ml, and over 60 ml is considered abnormal (V G Padubidri, Shirish N Daftary, 2004).

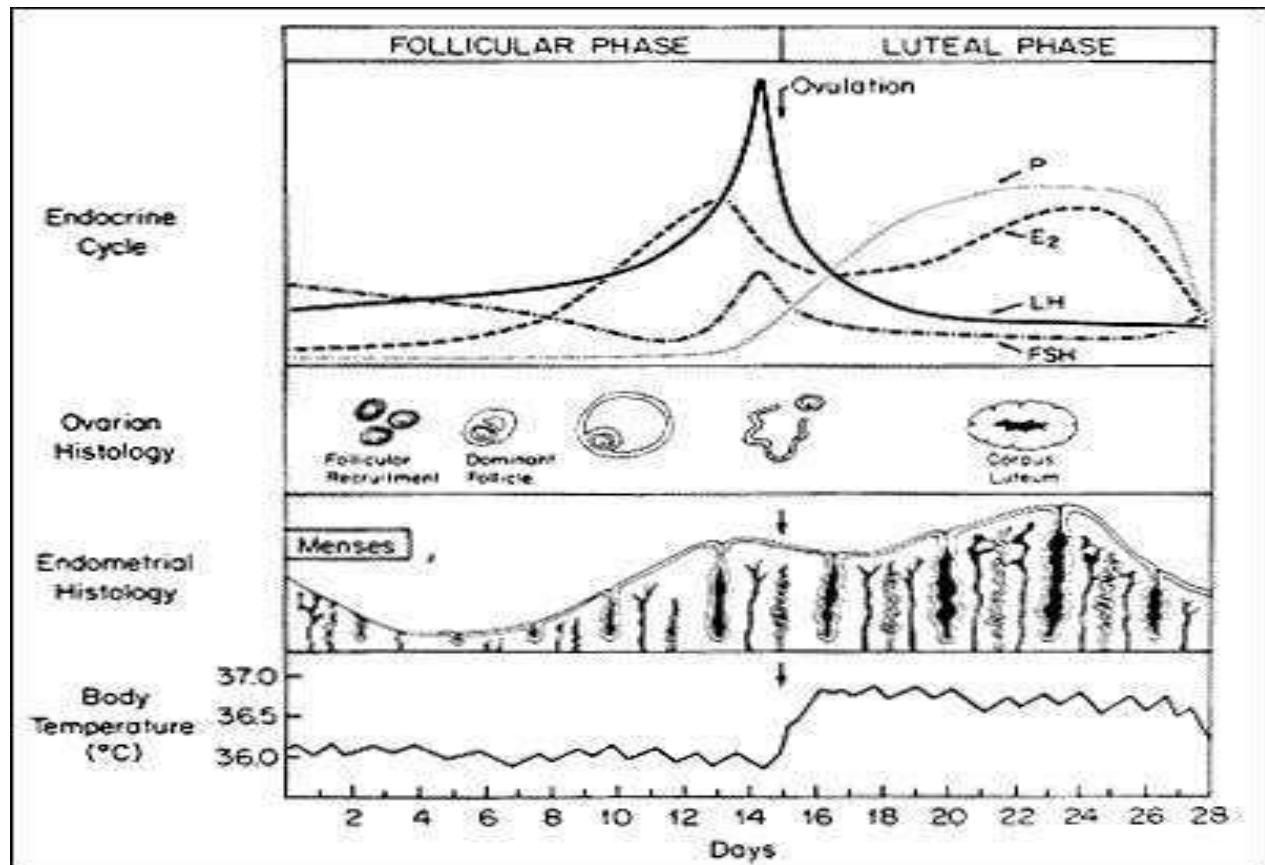


Fig.1: Menstrual cycle

Oogenesis: The formation and development of ova in female through the meiosis is called oogenesis. Oogenesis is initiated and partially completed in the follicles of the ovary. Unlike spermatogenesis, which begins at puberty, oogenesis begins before birth, although it is not completed until many years later. By the time the foetus is six months old, all the oogonia that female will even produce, are already formed by mitosis. At the time of birth a female has about 5 lacs primary oocytes. Most of them will degenerate before puberty. Only about 500 will develop sufficiently to be released by ovulation. As oogenesis continues, a diploid primary oocyte undergoes meiosis I, producing a functional cell called a secondary oocyte and a small non functional cell called a polar body that contain a very little amount of cytoplasm but full set of chromosomes. The polar body degenerate immediately or after going through meiosis II. The secondary oocyte that is the immature ovum, released from the ovary at ovulation (Kumar Pushkar, A P Singh, 2012).

Ovulation: An ovum is released from the ovarian follicles into the oviduct. During the follicular phase, estradiol suppresses release of luteinizing hormone (LH) from the anterior pituitary gland. When the egg has nearly matured, levels of estradiol reach a threshold above which this effect is reversed and estrogen stimulates the production of a large amount of LH. This process, known as the LH surge, starts around day 12 of the average cycle and may last 48 hours. The release of LH matures the egg and weakens the wall of the follicle in the ovary, causing the fully developed follicle to release its secondary oocyte. If it is fertilized by a sperm, the secondary oocyte promptly matures into an ootid and then becomes a mature ovum. If it is not fertilized by a sperm, the secondary oocyte will degenerate (Arthur C, Guyton, 2004).

Fertilization: Fertilization occurs after ovulation in fallopian tube. A sperm alive 4 days after discharged in female reproductive tract. So fertilization occurs almost in days 11th to 18th because ovulation occurs at day 14th of cycle and ova survive 2 day after ovulation (Silverthorn DU, 2013). Only



when a secondary oocyte is penetrated by sperm, it will complete meiosis II and producing a mature ovum whose haploid nucleus combines with the haploid sperm nucleus to produce the first diploid cell of a new individual (Kumar Pushkar, A P Singh, 2012).

Effect of travel and environmental variation on menstrual cycle: A disrupted cycle or even a missed period around the time of travelling is usually significant in relation to overall menstrual health. While it is not ideal, it is common, and often occurs when travelling across multiple time zones. Climate changes effects on woman menstrual cycles by **varying the bodies' metabolic rate** which clues again to hormonal inequity. When anybody geographically transfers to a place where the weather is hot or cold the body doesn't regulate automatically. This sudden climate variation may change a woman's menstrual cycle. When adjusting to the physiological imbalances that are causing irregularities in Circadian Rhythm. However, getting enough sleep, eating well-balanced and regular meals, and doing some exercise can all help get body back on schedule. Once biological clock has adjusted to the new environment, menstrual cycle should regular after (Treloar A.E., et al).

Congenital Birth defect: Congenital birth defects can be defined as structural or functional anomalies that occur during intrauterine life and can be identified prenatally, at birth or later in life. Congenital birth defects are also known as congenital disorders or congenital malformations. Congenital birth defects are the major cause of new born deaths within four weeks of birth and can result in long-term disability with a significant impact on individuals, families, societies and health-care systems. In nearly 50% of cases the exact cause of congenital anomaly

could not be identified, although there are some known risk factors which can be linked with the causation of malformation. Congenital anomalies can be caused by single gene defects, chromosomal disorders, multifactorial inheritance, environmental teratogens (an agent, which can cause a birth defect) and micronutrient deficiencies (Davidson, 1992).

REVIEW OF LITERATURE

According to World Health Organization, an estimated 270000 deaths during the first 28 days of life were reported due to congenital anomalies globally (WHO, 2010). Delayed ovulation may be a sign of poor egg quality (Amos Gruneaur, 2019). A germ line mutation often arises due to endogenous factors, like errors in cellular replication and oxidative damage (Crow JF, 2000). Congenital cardiovascular malformations present some of the most interesting and difficult challenges in medicine. They are exceptionally common affecting 0.5-0.7 % of all live born infants (Hoffimen and Kaplan, 2002, Hoffimen et al, 2004).

METHODS

Rational for choice of client: It is a case study of a women registered for JSY at sadar P.H.C of arwal district in Bihar. Taken interview to JSY beneficiary for case study and find a specific history.

This essay will consider the case of married women who delivered first male baby weight 2000gm with some birth defect : Hypospadias and Congenital Heart problem dilated RA, RV, FO and survived only 28 days with vital supports. But she delivered alive second healthy Male baby weight 3800 gm after 2 year.

HISTORY OF CLIENT

Table.1 : comparison of client's History

	Pre-Gravida	1 st Gravida	2 nd Gravida
Age	24 years	25 years	26 years
Locality	North India	North India	North India
B.P	118/78 mm of Hg	122/82 mm of Hg	120/80 mm of Hg
Pulse	76/min	78/min	74/min
Weight	55 kg	58 kg	59 kg
Height	153 cm	153 cm	153 cm
Diabetes	NO	NO	NO
Thyroid disease	NO	NO	NO
Alcohol	NO	NO	NO
cigarette	NO	NO	NO



Working women/House wife	House wife	House wife	House wife
M C	Regular(28days)	Important incidence	Regular(28days)
Family Planning	Safe-period method	-----	-----
Conceive	-----	Day 21	Day 14

Important incidence: Anamika kumari and his husband use safe period method for family planning during passed married life. Anamika kumari surprisingly conceive first time when fail in safe period family planning method due to a holiday Tour of puri (Udisha). She conceive at day 21st of period but ovulation take place at day 14th-15th, High level of LH cause rupture of Graafian follicle and release ovum.

First Gravida:

The day of Conceive: 21st day of menstrual cycle.

First trimester: USG Baby growth normal, AFI : Adequate.

Second trimester: USG Baby growth normal, AFI: 7.5 (Normal range 8-18).

Third trimester: USG Baby body weight 1960 gm.

AFI: 6.9 (Normal range 8-18).

Birth: A Male baby delivered weight 2000 gm with some birth defect: HYOPSPADIAS and Congenital Heart defect dilated RA, RV and FO.

Baby survives only 28 days with vital support.

Second Gravida:

The day of Conceive: 14st day of menstrual cycle.

USG Report: Normal at first, second and third trimester.

Birth: Delivered Alive Male healthy baby weight 3800gm.

Consider how Travel and Location change affect the client:

Anamika kumari and his husband use safe period method for family planning during passed married life. She has no use of contraceptive at any time in life. His menstrual cycle is almost regular, so use safe period method for family planning. Anamika kumari and his husband once go to puri (udishas) for a holiday. Anamika kumari surprisingly conceive first time when fail in safe period family planning method due to a holiday tour of puri (Udisha). She conceive at the day 21st of period. But ovulation generally takes place at day 14th-15th, High level of LH cause rupture of Graafian follicle and release ovum. A disrupted cycle around the time of travelling is usually significant in relation to overall menstrual health. Climate changes have effects on woman menstrual cycles by varying the bodies' metabolic rate which clues again to hormonal inequity. When anybody geographically transfers to a place where the weather is hot or cold the body

doesn't regulate automatically. This sudden climate change may change a woman's menstrual cycle due to change in 'body clock', the circadian rhythm.

DISCUSSION

Unlike spermatogenesis, which begins at puberty, oogenesis begins before birth, although it is not completed until many years later. By the time the foetus is six months old, all the oogonia that female will even produce, are already formed by mitosis. At the time of birth a female has about 5 lacs primary oocytes. Most of them will degenerate before puberty. Only about 500 will develop sufficiently to be released by ovulation. As oogenesis continues, a diploid primary oocyte undergoes meiosis I, producing a functional cell called a secondary oocyte and a small non functional cell called a polar body that contain a very little amount of cytoplasm but full set of chromosomes. A disrupted cycle around the time of travelling is usually significant in relation to overall menstrual health. Climate changes have effects on woman menstrual cycles by varying the bodies' metabolic rate which clues again to hormonal inequity. When anybody geographically transfers to a place where the weather is hot or cold the body doesn't regulate automatically. This sudden climate change may change a woman's menstrual cycle due to change in "biological clock". Fertilization occurs almost at days 11th to 18th because ovulation occurs at day 14th. Only if secondary oocyte is penetrated by sperm, it will complete meiosis II and producing a mature ovum whose haploid nucleus then combines with the haploid sperm nucleus to produce the first diploid cell of a new individual. In present case fertilization occurs at day 21st, because client use safe period method of family planning and occasionally go to a 5 days tour of puri (udisha). Due to this travel and climatic variation the period *disrupts*, so she conceive at day 21st. That can be cause of congenital birth defect of their first baby.

CONCLUSION

Present case study reveals that travel and climatic variation affects menstrual cycles by varying the metabolic rate. A disrupts menstrual cycle around the time of travel and climatic variation is usually occurs which influence length of cycle and change



the time of ovulation. Due to delay in ovulation, single gene defect or chromosomal disorders may be

occurs in the ova and causes the congenital birth defect.

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HEART OVER THE HEAD: SCIENCE TEACHERS' INFLUENCE IN DEVELOPING SELF-AWARENESS AMONG THEIR ADOLESCENT STUDENTS

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ABSTRACT

Self-awareness, at any stage, is very important in an individual's life as it includes the recognition of cognitive- and social-, as well as emotional intelligence within the self. This study was conducted with an aim to assess 'teaching with the head' and 'teaching with heart' which one is more powerful in developing self-awareness among their students. The descriptive survey method was used for the 405 students and 58 teachers of Kolkata (South Kolkata and North Kolkata), selected through a random sampling technique. Two standardized questionnaires were prepared for assessing the nature of a student's self-awareness and teacher's teaching methods while t-tests were conducted to test the hypotheses. Results indicate that the methods of developing self-awareness must be influenced by the characteristics of the teaching with heart and during adolescence - students become very much aware of themselves which, in turn, emphasizes the requirement of proper development of their self-awareness. Therefore, a major contribution of this study may provide a platform to isolate some of the factors which affect the self-awareness of the adolescent students.

KEYWORDS: *Self-awareness, adolescent student, teaching with head, teaching with heart, science teacher.*



INTRODUCTION

"If your head tells you one thing, and your heart tells you another, before you do anything decide first whether you have a better head or a better heart."

- Albert Einstein

In the present super complex world only the bookish knowledge is not enough to bring all-round development within a student. So the basic aims of the education system sometimes remain unattained. Some factors, which are not included in the textbook play important roles in the development of children. Such an important factor is self-awareness.

Now if we search the answer of the question 'what is self-awareness we will get different answers from different fields of study. According to **Socrates**, 'self' means the knowledge of oneself and according to him 'self-awareness is' a prerequisite to a deeper understanding of life'. **Bodhidharma** utters that, 'Buddha means awareness, the awareness of body and mind that prevents evil from arising in either.' The Buddha said that, 'Let none find fault with others, let none see the omissions and commissions of other. But let one see one's own acts done and undone. According to **psychology**, 'self-awareness is a psychological state in which oneself becomes the focus of own attention.' Psychologist **Daniel Goleman**, in his book 'Emotional Intelligence' opined about self-awareness that "Knowing one's internal states, preferences, resources and intuitions."

Self-awareness involves 'tuning in' to feeling and thoughts. It helps students to know how other people see them. Self-awareness is an important skill for the students to recognize his/her strengths and weaknesses, recognize errors in school works, can understand and talk about his feelings, recognize other people's needs and feelings. A student can understand how his/her behavior affects others. He/she will be better at self-monitoring and self-reflection. Self-awareness is developed through practices in focusing one's attention on the details of one's personality and behavior. It cannot be learned by reading a book. When we read a book we focus our ideas on the conceptual ideas included in the book but intellectual understanding can only develop by reading with self-awareness. It is like learning to dance. When we learn to dance we must pay attention to how and when our feet move our hands and body motion and position of other dancers etc.

The students spend a huge amount of time with their teachers in a classroom situation. So knowingly or unknowingly teachers play a vital role in developing student's self-awareness. Sometimes the teachers apply

different methods for developing student's self-awareness effectively. By adopting different methods of teaching they can perform their job.

Now, during the adolescence period, the students face different kinds of problems closely related to their self-awareness. At this stage, the students are required to adapt and adjust childhood behaviors to culturally acceptable adult forms. Adolescence is more than a transition; it is a stage of development in its own right, just like childhood or adulthood. A teacher can solve the problem and guide them to a better and prosperous future.

Now there are different ways of teaching. Teaching with head means mental activities including thinking; remembering, learning and using appropriate language. When we apply this approach to learning and teaching, we focus on the understanding of information and concepts only. Teaching with heart means emotions are at the heart of what teachers do and the reason they do it.

OBJECTIVES

The study was conducted with the following objectives:-

Objective 1: Observing whether there is any difference between the science teachers 'who teach with the head' and 'who teaches with heart' in developing self-awareness among their students.

Objective 2: Estimating whether there is any difference between male science teachers teaching with head and male science teachers teaching with heart in developing self-awareness among their students.

Objective 3: Observing whether there is any difference between female science teachers teaching with head and female science teachers teaching with heart in developing self-awareness among their students.

HYPOTHESES

In light of the objectives of the study, the following hypotheses were formulated:

H₀₁: There is no significant difference between the two groups of science teachers 'who teach with the head' and 'who teach with heart' in developing self-awareness among their students.

H₀₂: There is no significant difference between the male science teachers teaching with head and male science teachers teaching with heart in developing self-awareness among their students.

H₀₃: There is no significant difference between the female science teachers teaching with head and female science teachers teaching with heart in developing self-awareness among their students.



MATERIALS AND METHODS

The study implemented a Descriptive Survey Research Design to study the impact of the methods

employed by the science teachers for developing self-awareness among their students.

Table 1: Table for analysis of the status of the dependent variable with respect to the categorical variables (i.e., science teachers)

Categorical & Independent Variables	Major and Dependent Variable
Gender (levels: Male & Female)	Self-awareness of the students
Science Teaching (levels: with head & with heart)	

Tool

One questionnaire for the Science Teachers was developed and standardized by the authors. It was used in the present study to find out whether the teacher teaches with head or with heart.

Another questionnaire, developed and standardized by the authors, was used for the present study to find out whether the students were self-aware or not.

Sample

Random sampling procedures were utilized for this study. The population of the study comprised all the science teachers (Physical Science, Life Science, and Mathematics) of different Government sponsored Bengali medium schools of the Kolkata city in West Bengal, India.

Collection of data

The authors had first made a list of the schools at the Kolkata city which appeared convenient for the study to be carried out. Then, from that list, 11 schools were randomly selected (i.e., 3 schools from North Kolkata and the rest from South Kolkata). The researcher selected and collected data from 460 students, out of who 45 were rejected from the analysis because they did not completely fill in the questionnaire that was used to collect the data. During analysis, the researcher had to eliminate further 10 students because they had very poor scores. Thus, the final sample size for the study comprised of 405 students.

School wise data were also collected from the students about their most favourite science teachers there, assuming that those teachers have the greatest influence over the students in developing their self-awareness. Then, relevant data were collected from the 65 science teachers of those sampled schools, out of which 7 were rejected from the final analysis because the data provided there were incomplete. Therefore, the final sample size for the study comprised of 58 science teachers [vide Table 2].

Through descriptive survey method the researcher investigated the impact of the methods

employed by the science teachers for developing self-awareness among their students. After preparing the tools of the study, the researcher got engaged in collection of data. At first, the respected institutional heads of those schools which were selected randomly were contacted. Then the intended research work and purpose was informed to them for obtaining permission to conduct the survey. The science teachers were communicated through the head of the institutions. The purpose and significance of the study was explained to them. The science teachers were found willingly for data collection from the students and as such they also helped the researcher for fixing date, time and arrangement of the classes for her data collection. Data were collected from both the teachers and the students with the help of two different questionnaires by survey methods. The survey was developed to capture information regarding the development of student's self-awareness as well as the teacher's view on self-awareness. Participants were informed that all of their responses were confidential and anonymous. The science teachers and the students were requested to read the instructions carefully and to ask the researcher if they have any difficulty in understanding the instructions. The students and the science teachers were informed that they were free to express their responses as they feel and should select the right option only. Only the students were assigned specific time limit and it was emphasized that no item should be omitted. The students were again instructed to check for any unanswered items of the questionnaire. The responses of the teachers and the students were arranged properly. The incomplete questionnaires were discarded. Finally data scoring were done for all the completed questionnaires and the collected data were entered in the tables for their consequent analysis.

Table 2: Table for gender wise and type of science teaching wise distribution of the sampled teachers

Variables		Type of teaching		Total	Percentage
		With head	With heart		
Gender	Male	5	30	35	60
	Female	8	15	23	40
Total		13	45	58	
Percentage		22	77.5		

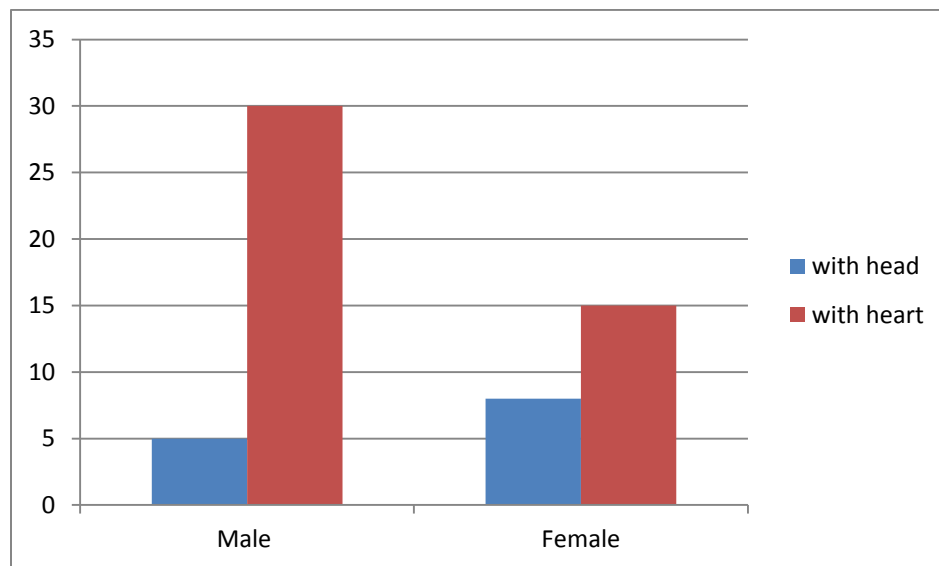


Fig-1 Graphical representation of Gender wise and Type of Teaching wise distribution of the sampled Teachers

From the Table 2 and Fig -1 it can be viewed that there are 35male science teachers and 23female science teachers. So there are total 58 science teachers taken for the present study.

RESULTS

Table-3:Tabular presentation of the descriptive and inferential statistics for testing the H_0 1:

Variable	Levels	N	Mean	Std.Deviation	Std.error mean	t	df	Sig. (2 tailed)
Teaching	With head	13	28.23	0.44	0.12	15.79#	56	2.79E-22
	With heart	45	42.53	3.24	0.48			

#Significant at 0.05 level of significance.

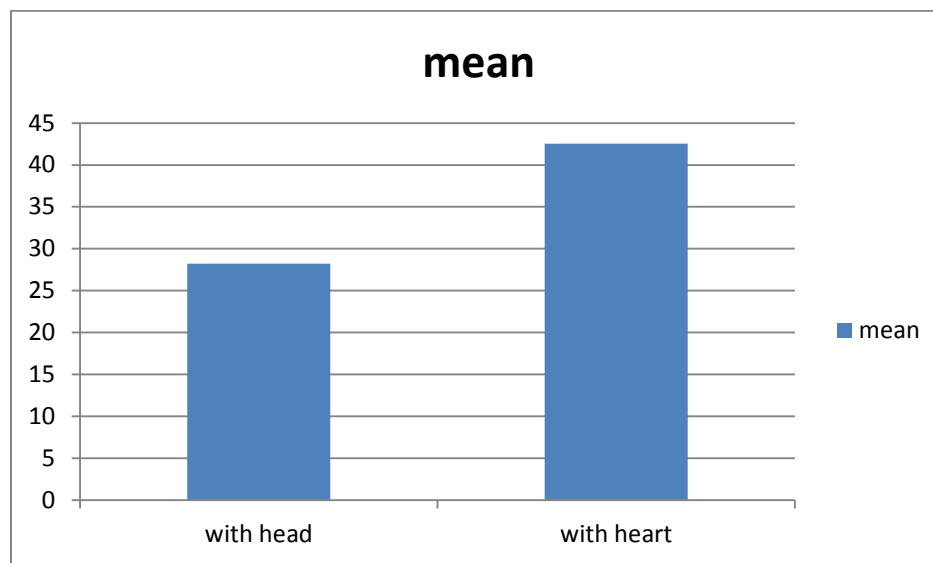


Fig-2: Graphical representation of data of table no-3

The analysis in Table-3 shows that in comparing the scores of the teachers teaching with heart and the teachers teaching with head, the calculated $t_{(56)}$ value is 15.79 and 'p' value is $2.79E-22$ ($p < 0.05$). Hence, t is significant at 0.05 level of significance. So H_0 is rejected. Therefore, it can be said that there is a significant difference between the science teachers

teaching with heart and the science teachers teaching with head in developing self-awareness among their students.

Fig 2 shows that the mean scores of the teachers teaching with heart are found to be higher than the teachers teaching with head. (teachers teaching with heart=42.53 and teachers teaching with head=28.23

Table-4: School wiselist of number of students obtaining high scores [$\geq 80\%$] in relation to their most favourite science teachers' teaching with heart and teaching with head

Sl.no. of school	Most of the favourite science teachers teaching with	Percentages of students obtaining high [$\geq 80\%$] scores
1	Head	35%
2	Heart	62%
3	Heart	68%
4	Head	26%
5	Heart	56%
6	Heart	61%
7	Heart	58%
8	Head	46%
9	Head	49%
10	Heart	55%
11	Heart	59%

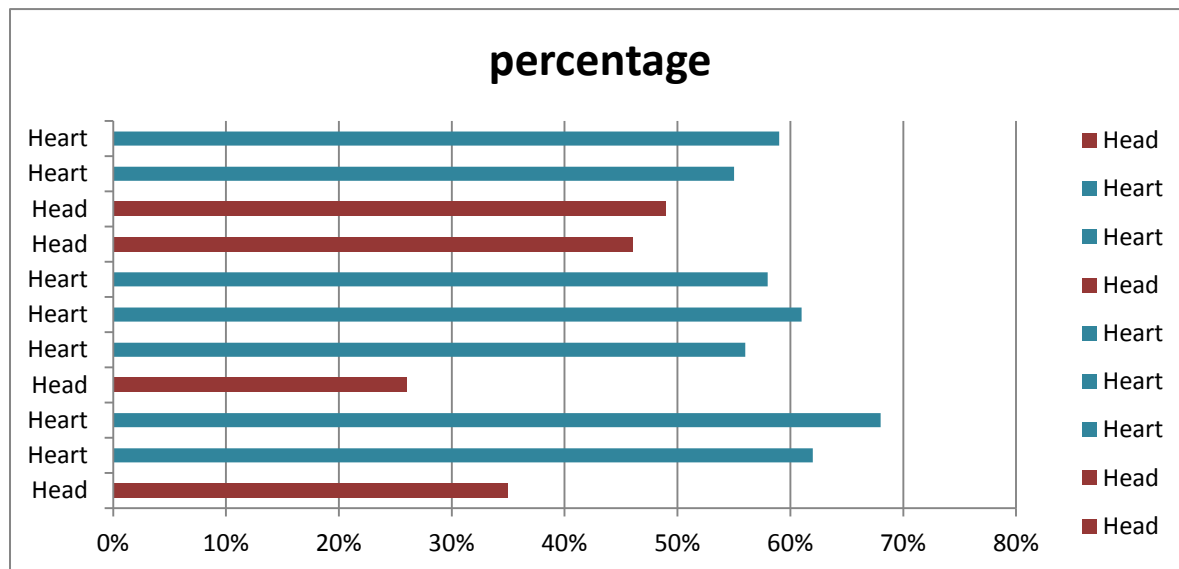


Fig-3:Graphical representation of table no-4

Table-4 shows that the students of the teacher, who teaches with heart has obtained higher score than the students of the teachers who teaches with head. So

it supports the findings of table no 4. Thus, the methods of developing self-awareness must be influenced by the characteristics of the teaching with heart.

Table-5 Tabular presentation of the descriptive and inferential statistics for testing the H_02 :

Variable	levels	N	Mean	Std.Deviation	Std.error mean	t	df	Sig. (2 tailed)
Type of Teaching of Male Science Teachers	Teaching with head	5	36.8	7.85	3.51	0.49#	33	0.62
	Teaching with heart	30	38.43	6.64	1.21			

#Not significant at 0.05 level of significance.

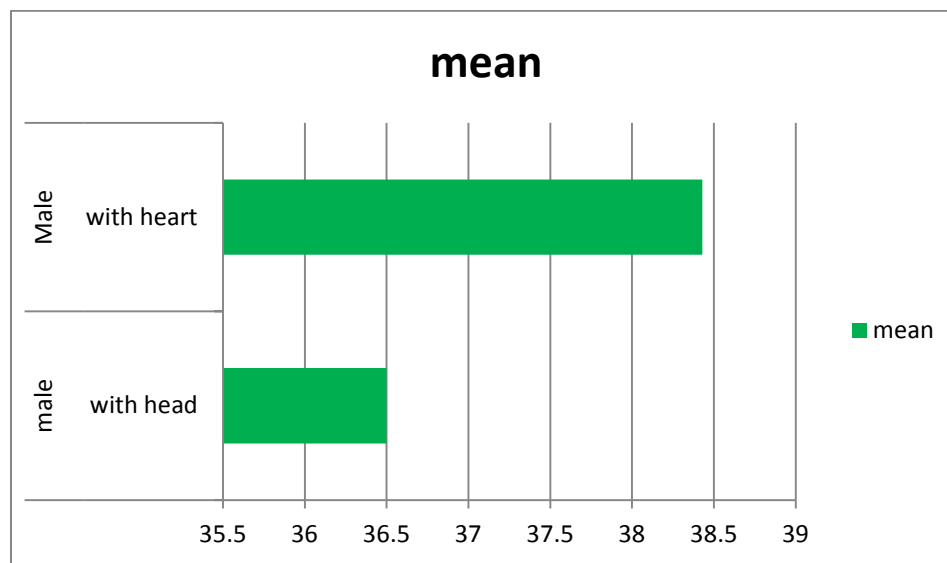


Fig-4: Graphical representation of the mean scores of the male science teachers who teaches with heart and the male science teachers who teaches with head

Fig 4. shows that the mean scores of the male science teachers teaching with heart are found to be higher than the male science teachers teaching with head. (teachers teaching with heart=38.43 and teachers teaching with head=36.8)

The analysis in Table-5 shows that in comparing the scores of the male science teachers teaching with head and the male science teachers teaching with heart, the calculated $t_{(33)}$ value is 0.49 and 'p' value is 0.62

($p > 0.05$). Hence t is not significant at 0.05 level of significance. So H_0 is not rejected and it can be said that there is no significant difference between the male science teachers teaching with the head and the male science teachers teaching with heart in developing self-awareness among their students.

Table-6 Tabular representation of the descriptive and inferential statistics for testing the H_0 :

Variable	levels	N	Mean	Std.Deviation	Std.error mean	t	df	Sig. (2 tailed)
Type of Teaching of Female Science Teachers	Teaching with head	8	35.75	7.96	2.81	0.89#	21	0.38
	Teaching with heart	15	38.53	6.62	1.71			

#Not significant at 0.05 level of significance.

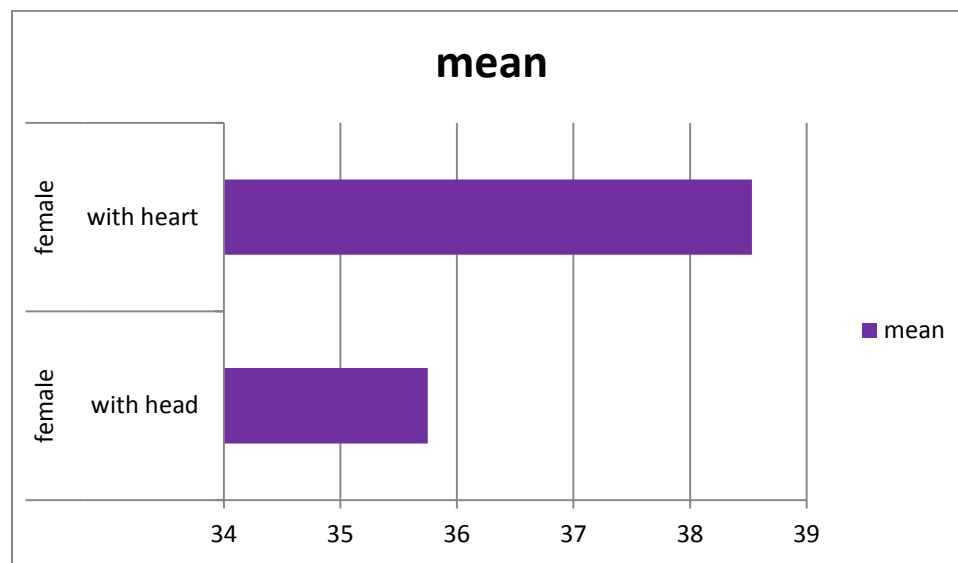


Fig-5: Graphical representation of the mean scores of the female science teachers who teaches with heart and the female science teachers who teaches with head

Fig 5 shows that the mean scores of the the mean scores of the female science teachers teaching with heart are found to be higher than the female science teachers teaching with head.(teachers teaching with heart=38.53 and teachers teaching with head=35.75)

The analysis in Table- 6 shows that in comparing the scores of the female science teachers teaching with head and the female science teachers teaching with heart, the calculated $t_{(21)}$ value is 0.89 and 'p' value is 0.38 ($p > 0.05$). Hence t is not significant at 0.05 level of significance. So H_0 is not rejected and it can be said that there is no significant difference between the female science teachers teaching with the head and the female science teachers teaching with heart in developing self-awareness among their students.

MAJOR FINDINGS

The results show that there is a significant difference between the teachers teaching with the heart and the teachers teaching with the head in developing self-awareness among their students. The mean score (i.e., 42.53) of the teachers teaching with heart is found to be higher than the mean score (i.e., 28.23) of the teachers teaching with head.

The findings also show that whatever be the subject of teaching, the students of the teachers, who teach with the heart have obtained higher scores than the students of the teachers who teach with head. Thus, the methods of developing self-awareness must be influenced by the characteristics of the teaching with emotion.

It can be said that there is no significant difference between the male science teachers teaching with the head and the male science teachers teaching with heart in developing self-awareness among their students.

It can also be said that there is no significant difference between the female science teachers teaching with the head and the female science teachers teaching with heart in developing self-awareness among their students.

Educational implications of the study

The educational implications of this particular study are further discussed in the following paragraphs to highlight its significant contribution to the field of research in teacher education and also in the learning environment of a school.

The present study is very much important because it deals with the students of the adolescent stage. The teachers need to understand the emotional turmoil that their students go through at this stage. The findings of this study may help them to comprehend the students' need to provide a conducive, comfortable and healthier psychological climate significant in the classroom. It might facilitate the teachers to realize that providing the right and most favourable class environment to the students can improve their self-awareness and enhance their achievement in their day to day life. The study may enable teachers to understand the need to develop a strong emotional attachment with their students and offer them opportunities to freely express their feelings.



It may also help the teachers to understand the necessity and importance of developing self-awareness among their students. The study might make the teachers realize the importance of identifying a lack of self-awareness in their students and the necessity to take steps to its consequent development.

This, in turn, may enable the teachers to provide a better classroom environment to take care of the mental well-being, recognition of cognitive, social and emotional intelligence of the students and to help them enhance their self-determination, independent thinking, and high-level processes. This may help the students to manage their huge stress in this complex society and make them capable to manage interpersonal and intrapersonal relations with themselves and others.

The study may further help to facilitate the students to be aware of the fact that it is very important to be self-aware and due to inexperience, they are generally unable to realize its absence in themselves. Here lies the responsibility of the teacher to support students to reflect on their self-awareness. This may help the students to identify their level of self-awareness and modify it. Furthermore, the students may understand that developing self-awareness can lead them towards improved academic achievements and may enable them to become better human beings.

Last but not the least, the results of the present study would help to add further knowledge to the existing literature on the development of self-awareness among adolescent students.

CONCLUSIONS

To conclude, it can be said that the present study thus may help the teachers and students to search deeper into the factors which might affect the self-awareness of the students. The findings of this study strongly recommend that the teachers must provide care, affection, respect, supports and encouragement to their students for the proper development of their self-awareness. The development of self-awareness is very important because it includes the recognition of cognitive and social as well as emotional intelligence within the self. A teacher should be aware of the fact that the students and their influences always help a teacher to become a more self-aware, emotionally intelligent person. On the other hand, an emotionally balanced and self-aware teacher can keep a fruitful impression on his/her students' minds. So by the proper development of self-awareness, a teacher can assist the students to blossom into an emotionally and socially adjusted better human being with confidence, positive mental health, integrated and harmonious personality. This will have the immense potentiality to provide the

nation with more responsible and contributing citizens of tomorrow.

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THE ROLE OF PARALINGUISTIC MEANS IN EDUCATION

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ABSTRACT

Paralinguistics is one of the new branches of modern linguistics, which means the expression of thought in a non-linguistic way. Paralinguistic means are divided into kinetic, paraphonetic, graphic types. Kinetic and paraphonetic means almost always come side by side. Also, paralinguistic means are speech-related phenomena, which are usually auxiliary and sometimes basic means of conveying speech. Paralinguistic means are one of the means of conveying information, coloring it, adding additional meaning to the thought, revealing the tag meaning of the speaker's speech. Taking account these features, in this article I want to reflect on its role, purpose and essence in the process of our speech.

KEY WORDS: *paralanguage, body language, expression, discipline, education, linguistics, communication, sociolinguistic*

DISCUSSION

Paralinguistics is a body language, pitch and facial expressions. Often paralinguistic features are categorized as being simply things that happen when people are speaking. However, in this day of digital technology, paralinguistic features are communicated in writing through the use of things like emoticons, pronouns, as well as different types of greetings and goodbyes.

We all learn that at some point communication involves more than the words people say or write. It also involves aspects that denote tone, mood, personality, power and intentions.

According to the calculations of scientists, 7 percent of the information or thoughts that people want to convey are expressed through words, 38 percent through tone, and 55 percent through gestures.¹ In its turn the listener also receives and memorizes 15 to 30 percent of the speaker's speech by tone, 25 to 50 percent by sight, and more than 50 percent by both hearing and seeing. According to some research, in two weeks we remember 10 percent of what we read, 20 percent of what we hear, 30 percent of what we see, 50 percent of what we see and hear, 70 percent of what we say, and 90 percent of what we say and do. In this regard, we consider the proverb of the philosopher-scientist Confucius to be appropriate, he says:

"I see and I forget. I hear and I remember. I do and I understand."²

It is known that in accordance with the Resolutions of the First President of the Republic of Uzbekistan Islam Abduganievich Karimov dated 10.12.2012 PD-1875 "On further improving the system of teaching foreign languages"³, great importance is attached to the use of innovative technologies in teaching foreign languages and the use of interactive methods. In such cases, it will not be easy to achieve the expected effect without paralinguistic means. Because entrance of the teacher to the classroom, his or her greetings with class, the relationship between teacher and students, the use of multimedia, video clips, pantomime games to activate the lesson process, etc., are the objects of study of paralinguistics.

In addition to linguistics, the study of paralinguistics in connection with such disciplines as psychology, pedagogy, history, ethics, aesthetics, cultural studies, ethnography, anthropology, religion, speech culture, allows us to study paralinguistic means more deeply and broadly and to better understand it. If psychology, history, ethnography, anthropology study the origin of certain paralinguistic means used in our daily life, then in

¹ "Silent Messages" Albert Mehrabian 1971

² Confucius quote

³ <https://www.lex.uz/docs/2126030>

what state and where they are used is also the object of such sciences as psychology, ethics, aesthetics, culturology, religion and speech culture.

For example, if we take a movement that means "no", it is almost the same in all nations, we usually turn our heads from side to side to express

"no", the peculiarity of this phenomenon is that when a child is born, it is fed from the mother's breast, and when it is full, it tilts its head to the other side. It means "no", it is no longer needed. Thus, the action of "no" takes place in our dictionary of nonverbal communication unconsciously.



Picture 1⁴

Let's take the situation when we get angry, gnashing of teeth is usually observed by pressing hard on our teeth, and this can be especially noticeable in men. This is because in ancient times, men in the tribes went hunting, and during the hunt they encountered wild animals. Now let's imagine a wild animal and even a cat or puppy that lives in our house, and they, too, come out angry, showing their teeth ready for war. The primitive man also had to show his teeth many times during the hunting. So, the display or gnashing of teeth, which means jealousy, has come to us through a genetic path.



Picture 2⁵



Picture 3⁶

⁴ https://www.stockunlimited.com/vector-illustration/cartoon-girl-saying-no_1955508.html

⁵ https://fr.123rf.com/photo_59765650_man-worker-cartoon-col%C3%A8re-caract%C3%A8re-vecteur.html

⁶ <https://www.istockphoto.com/vector/angry-dog-and-cat-gm149110849-20952327>

One of the psychological factors is that a lying person covers his mouth with his hand, touches his

nose or lips. Because we know that lying is not good in our minds, our hands involuntarily try to stop us.



Picture 4 ⁷

There are many examples of body language people use in daily life, but according to sociolinguistic research, a particular society uses appropriate and specific paralinguistic tools, for example, some professionals, people living in a particular space, and so on. Preschool teachers use gestures that mean “silence” or orders like “sleep”, “lie down”, “stand up”, “seat down”, “let’s eat” and so on more than other professionals.

Teacher's hand and body language is used to develop students' speaking skills, using their personal channel of perception. Hand language helps to control the process of speaking at the initial stage, the language of fingers and hands is used to improve intonation and speaking speed at various stages of the formation of grammatical skills. The teacher's body movement - the image of a wave with a hand, which determines the intonation pattern of a sentence, will help students to voice it. Appropriate gestures, images and body movements make it easier for the teacher to express the meaning of sentences and words, and for the student to understand their meaning even without translation.⁸

Paralinguistic features of language are extremely important as they can change message completely. Tone and pitch of voice is commonly dealt with at all language levels. If the teacher starts the lesson with greetings in a rough tone, frowning and with arms across for sure the lesson will be ineffective. Or conversely, when the teacher starts the

lesson with a smile and in a good mood, the task at hand reaches the goal, since the teacher's body language affects the students. Also, an important aspect of teaching paralinguistics to students studying English as a foreign language is to increase the student's caution in using body language while communicating with an English person, because some gestures may reflect different meanings in different nations. But some paralinguistic means may be the same in every nations, we can call them universals and also there are some paralinguistic means which are treat only for single language, so we have to teach students to distinguish gestures, poses, facial expressions of native speakers in order to have better communication and better understand each other.

So, we can draw the following conclusions from this:

- Paralinguistic means ensure effective communication between people;
- Facilitates the reception of new information;
- Helps to teach science to students, and students to learn science more effectively;
- Sincere communication between communicators or vice versa is a factor in the failure of communication;
- Each paralinguistic means has its own history and factors of origin;
- Paralinguistic means enrich our rich and perfect oral and written speech and reveal its essence deeper.

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SKILL BASED COMMERCE EDUCATION FOR EMPLOYMENT

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ABSTRACT

The growth of the any country is dependent upon the skilled workforce. In order to achieve sustain economic growth fresh commerce graduate should enable to get an employment opportunity for their sustain livelihood. For that a healthy environment of developing entrepreneurial and employment enhancement skill among the commerce graduate and making them employable and responsible citizens is crucial in this age. In this way commerce education can contribute to inclusive growth and sustainability of the country. Hence, an efforts is made in this paper, to highlight how commerce education can useful in the creation of the sustain employment opportunities to fresh commerce graduates

KEYWORDS: commerce education, skilled workforce, sustain economic growth, employment opportunity

INTRODUCTION

The dynamically changing business environment demanding specialized and skill workforce. Similarly in order to achieve sustain economic growth the country is needed skill workforce, that they should enable to get an employment opportunity for their sustain livelihood. Therefore this has force higher education sectors of the country to redesign the curricula so that the need of dynamically changing environment and economic scenario shall be catered.

In India there are number of colleges and university offering commerce education like B.Com. M.Com. etc. The percentage of graduate in commerce in every year is increasing. The question is that how many of them get employment opportunity. The traditional commerce education has lost its vision and does not know whether employability of students or in-depth research in business problem is its focus. Though commerce education was started in 1886 over and hundreds and thirty seven years ago in India, still this discipline is facing countless problems that have direct bearing not only on the students career but also on the functioning of the business world.^[2]

Less than 10% of the three million-odd graduates in arts, science and commerce streams each year have employability skills and there is a need to

bring in skill-based quality education to improve employment chances ^[1].

Inclusive growth and Sustainable Development

Since independence, India is striving for the all round socio-economic development of the country, there are many five years plan, annual budget that cater specific issue in each plan. But in today's era many region of the country and people are not getting benefits of the economic growth. Cores of people of the country are facing problems like malnutrition, poverty, poor health, not getting proper foods, clean water etc. therefore the gap between poor and rich is increasing. In order to bring such people in the growth process, the 12th five year plan of GOI is focusing on the Inclusive Growth and Sustainable Development. The aim of the plan is to provide better livelihood to these people so that they can be benefited with the economic growth.

In this scenario the role of commerce education is that how commerce education is useful to provide an improved livelihood to the people at the bottom of the pyramid by empowering them to find how commerce education can be leverage for sustainable inclusive growth. In this respect commerce education can provide sustain employment and business opportunity to the commerce graduate. Report of National Audit Office, UK Says that One way to increase the sustainability of employment is to help people improve



their skills, so that they can progress from short-term, entry-level jobs to better jobs.

REVIEW OF LITERATURE

Erasmus S. Kaijage (n.d.) the paper discusses findings from a tracer study of B.Com graduates of the Faculty of Commerce and Management of the University of Dar es Salaam. Findings about the level and type of technical knowledge and skills required of graduates in the job market are related to the faculty curriculum. The paper further discusses employers' evaluation of the knowledge and skills of graduates. The paper conclude that although knowledge and skills imparted by the Faculty were found to be relevant in the job market, there was a need to restructure the faculty programme in order to rationalize the extent of generalization as against specialization, streamline existing courses, include more relevant courses and address the needs of the emerging private sector.

Gurvinder Kaur Gurcharan Singh and Sharan Kaur Garib Singh (2008) The main aim of this study was to identify the perception of employers concerning the employability skills needed in the job market and graduates' perception of the employability skills that they currently possessed. Eleven variables that make up employability skills based on past research were examined in this study. However, only seven factors, which were the result of factor analysis, were considered. Data were collected through two different sets of questionnaires intended to gauge employers' and graduates' perceptions, respectively. The results of this study revealed that employers preferred to hire graduates from public universities. Moreover, graduates and employers placed similar importance in terms of the ranking of employability skills, where both employers and graduates perceived the order of importance of employability skills to be the same. However, there was a difference between employers' and graduates' perceptions for all seven employability factors, where employers rated graduates much lower in terms of mean rank. The results of this study also suggest that younger employers tend to be more favorable to graduates' employability skills. The higher the job position of the employer within the organization, the higher are the expectations of graduates. Finally, recommendations were also included in this study.

As cited in Isaac, I. J. (2007) any form of education which focuses on equipping the individual with managerial skills to enable him holds a job or survive in an occupation is termed Business Education. Business Education according to Akpan (2003) as cited in Isaac (2007) is the training for the acquisition in business skills occupation.

Organizations across the public, private and voluntary sectors are now looking for graduates who can help them adapt their policies and practices to meet these sustainability objectives, making sustainability literacy a growing area of employability skills, with an increasing number of environmental management roles throughout all sectors. Robinson, Keele (2008)

Marcus Grant, (2009) The aim of this project was to explore the productive alignment of academic- and work- related sustainability literacy and competencies to enhance student employability. The anticipated and realized outcomes also included raised awareness of issues of sustainability literacy amongst academic staff and University careers staff. Central to the project have been focus group discussions with academic teaching staff and University careers staff. The study has identified several issues for further development. These are to: •assist with enhanced sustainability literacy for students; •strengthen links to employability in the environmental industries, sustainable development and voluntary sector; and •help to ensure that students are enabled to understand and contribute to the social and environmental responsibilities of potential future employers

SKILL BASED COMMERCE EDUCATION

The present system of commerce education does not equip the students either for taking up jobs requiring knowledge of general subject or job that demand knowledge of technical or specialized nature. 'Jack of all trades, master of none' is very much true for commerce students. Even time has come when a commerce graduate is not even being accepted as a qualified book-keeper. Consequently, he finds himself in a 'no mans land' neither a generalist nor a specialist. The main reason of priority of commerce education is that we have allowed commerce education to be content based rather than skilled and practice oriented which is capitalized by our other counterparts in business education.^[2]

According to McKinsey Global Institute survey results, "India produces 360,000 engineering graduates, 600,000 graduates in arts/science/commerce." And only 25% of engineering graduates and 10% of other graduates are employable.

American Society for Training and Development (ASTD) identified a benchmark of six skill categories important to employability.^[3] These are:

- Basic competency (reading, writing, computation)
- Communication (speaking, listening)
- Adaptability (problem solving, creative thinking)



- Developmental (self-esteem, motivation and goal setting, career planning)
- Group Effectiveness (interpersonal, teamwork, negotiation)
- Influencing (understanding organization culture, sharing leadership)

In order to get a sustain employment opportunity; the syllabus of the commerce education should be restructure so that after completion of the course they get an employment and business opportunity.

In today's business environment there are mainly three skills required to commerce graduate as demanding by business world from commerce graduate:

- Finance and Accounting
- Marketing
- Analysis

So, the syllabus of the commerce education should restructure by keeping the demand of business world. The based should be the strong knowledge and usage of Information Technology. There is a growing demand for accountant and finance professional in the all the field of business but due to lack of practical application of the knowledge of the student they don't get job. Hence there is a need to make it practical and include accounting software and excel application in the syllabus.

The second is Marketing, this is most important for any organization. But the syllabus of the Marketing subject fails to equip the students to develop marketing skill among the students. Therefore there is a need to include practical aspect of marketing, internship and usage of information technology and its tools in the new age marketing.

The third is Analytical Skill: the demand for data analyst is much in all fields. Therefore there is a need to equip the students with the application of statistics in all the subject of commerce and the usage of IT like SPSS, Excel in the Data Analysis.

Further there are various other sectors like Export, Finance, Tourism, Construction, Retail, Agriculture, Banking, Law, Telecoms, Energy, ITC, Dairy, Manufacturing, etc. the universities should develop the industry oriented degree courses, so that student develop the sector specific skill also.

The commerce and business management fraternity should think on the how colleges and universities should develop and integrate employability skills into their programs of study, how they teach employability skills, how they should assess students' employability skills and what action in this regard the colleges and university are taking for students to get sustain employment opportunity.

CONCLUSION

Proper planning is required to upgrade, modernized and diversified the structure and curriculum of liberal commerce education in all colleges and university across Indian state. For this teacher's mindset has to be changed and apart from books we should bring different practical problems of real business world to the classroom.^[2] Further a healthy environment of deloping enterprenerial and employment enhancement among the commerce graduate and making them employable and responsible citizens is crucial in this age. In this way commerce education can contribute to inclusive growth and sustainability of the country.

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EVOLUTION OF HISTORICAL CLOTHING GIVING A TRUE ESSENCE TO FASHION ERA OF 21ST CENTURY

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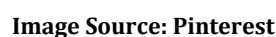
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ABSTRACT

Fashion is something which traces its footprints back from the history which involves all the techniques which are still followed in present world of fashion, and brings a glimpse of our history and culture which clearly state that from DIY to the Designer fashionable attire the old techniques are followed in same way with lots of adoration globally

This signifies fashion nova but unlike it never disappears and always stay in fashion that's why it's classic and adopted by all .Old fashion techniques which now a days are coming up with modern evolution not only this the vintage fashion and its techniques always stays in trend , fashion cycle keep revolving with the some new innovations but what stays the same is the basics of the fashion which now a days in a verge of today's fashion industry which is termed as "old fashion", " sustainable fashion" and it is continuous , worthwhile, renewable, viable and most importantly in vogue and this research paper revolves around going back to the old steps of fashion.

KEYWORDS: Fashion, Sustainable, Old, History, Designer, Traditional, Techniques, Trend, Vintage, Industry, Culture, Footprints, Globally



Fashion in India is introduced when the human civilization begins on this cultural land and it is very evident that the series of sustainable fashion was started here along with Indian's rich culture, history and different regions .Indian fashion is a collection of empires and decades of royalty and traditional techniques which passed on from generation to generation of different fashion trends that have recreated , redesign and relaunched with the same grace and gained the same acknowledgment as before. As in present scenario the Made in India is a campaign which is running in pace all over the nation and was promoted on global platforms the key of this campaign was to endorse the products manufactured in India. But in apparel industry it was going hand in hand which means manufactured in India along with sustainability because this concept is not new, to the Land of Gandhi our leaders and thinkers-initiated use of Swadeshi, organically grown fabrics for making attires with our Indian techniques.

to promote the sustainable fashion through its very own techniques which depicts the traditional elements using the natural components ,for example-printing tradition dating back to ages and India was the one to introduce a wide variety of textile arts with different method along with a unique output with significant process which means done by hand where the colors used are absolutely natural not only this we have intricate weaves, Indian embroideries, traditional art and craft. The agenda of this topic is to explain the Indian sustainable fashion techniques which are diverse yet distinct demonstration of our rich cultural heritage which are followed from the very beginning on the land of wonders that's why it one of the greatest treasures of the country which is Celebrated all over the world.

Indian history is full of art, crafts and diversity of religions and culture that is proven to be a cherry on the top because it clearly complimented the Indian fashion history which are still continuing on with the same poise. let's quote the examples which showcase our history and fashion together, Indian surface works have gained popularity not only in Indian markets but International markets as well; Indian surface works are one among the gorgeous



gifts the rich Indian culture has got to offer. However, these traditional handiworks also tell the story of Indian history, from the valleys of Kashmir to the ornate kingly apparel of Mughals, Nawabs, Rajputana's and Marathas; not only this if we take a long jump back then we have not one but diverse fashion era which is Vedic period, women wrapped themselves with a single cloth over their shoulder, pleated garment (paridhana), belt (mekhala) and a shawl fabric the shoulders (uttariya) Both men and women wore these clothes difference was the size and style of wearing and called as Vedic fashion, Gupta fashion period this era brought the stitching of garments which denoted royalty. Clothes could now be cut and sworn into beautiful garments, Mughal Empire, the king Akbar influenced the way people dress together with his distinct sort of dressing. It was a combination of the Hindu and Muslim culture, arts and was proven to be biggest fashion era which is now a days called as Mughal fashion after this comes the Post-independent Indian fashion era which has evolved to leave a distinctive mark on the world of fashion throughout the world. Even the traditional silhouettes like the sari, ghagra choli or dhoti still remain popular in the modern fashion scene. Indian attire is most famous for its intricate embroidery designs on the dresses, saris, skirts, shirts or shorts that have also incorporated western fashion. The history is proven that with its rich history and culture, Indian designs have stood for a huge time and have evolved to take the style world by wind of influence.

Following the 3R's

Rethink – India from the very beginning has its root indulged in fashion world but what makes its presence remarkable was its approach towards the sustainability, design, art and craft along with its basics which have always stick to the culture. Initially the idea of sustainable fashion was adopted by none other then the Indians beside this we are the inventors of many fashion techniques and style which are on the top of trend list and can not be replaced because its classic. India has always been a trend settler for the whole wide world and the reason behind this is designs which are created by us shows the glimpse of our imperial past. what makes our designs and techniques unique among all is that we have a procedure of working which says think>evaluate>finalize>outcome and this cycle continues when we pick up the same process but we rethink and re-evaluate on the same thing as done before but come up with a different outcomes with the same idea and that idea is our culture and traditions which stays the same and this process of rethinking always outshine our traditions and culture in front of world but every time with a new interpretation and that is the key feature of our designs.

Reuse- Reusing was something which gives a loud call to sustainability specially in India for example

reusing was a tradition of passing the richness and royalty, the bridal attire was passed from generation to generation of brides as it is a mark of family's culture same in this way, later on people started it understanding as a concept of reusing and utilizing the clothes, such as the fabric can be designed into different types of re-usable products not only to the local's but this is adopted globally by the top brands as it is seen as a shield to tons of textiles waste and a approach which brings a new life to something that's used which brings a new outlook within the people in a form of fashion revolution.

Redesign- Redesigning can be understood simply by the chain of relativity between all the aspects of fashion which clearly reflects the multiple elements and utility of the products. The fashion industry has undergone sweeping changes which brings lot of things together in one box which is reuse, recycle, evaluation and redesigning under the banner of sustainable fashion. For example – khadi was introduced in India and now a days it's on a verge of sustainable product material which is redesigned with modern silhouette in combination with Indian surface ornamentation techniques. Also, when view thoroughly the concept of redesigning can be seen in each and every house of India where mother sarees can be redesigned into various types of garments; Redesigning Fashion in India reveals the enrich perspective about sustainable fashion, inspired work from our traditional techniques and most importantly our primitive concepts which are succeeded all over the world.

CO-RELATED WITH WORLD FASHION

India has an immense creative side when it comes to fashion which is celebrated across the global market with acceptance and appearance. The practice of fusion wear goes both sides, it is a popular fashion choice in India too. A collection of western outfit with either folk prints or vice versa is in popular demand today. So, this Indian concept of sustainability with traditional techniques reflects fusion with diversity and have come up with bright hues and big Indian prints this Indian picture of fashion shows the origin of our long-established appearance in the world of fashion. Indian approach towards the sustainable fashion has given our craftsmen a chance to put forward their skills and earn their livelihood this also helped in promoting Indian culture and crafts that inculcated only in our country. Today, after years, history is repeating itself as Indian designers are echoing the same and because of this we are working in joint ventures with international brands and the products which we have created in collaboration are both unique and contemporary and are in huge demand internationally which has given a boom to Indian apparel industries



supply and demand chain which created a huge profit in favor of local Indian brands.

DESIGNER OUTLOOK TOWARDS SUSTAINING OLD FASHION

As we know designers are the source who work as presenters to showcase the country fashion in front of world at different platforms, Indian fashion designers have raised the bar of the country on a global level and are renowned around the globe for their unique and innovative designs and in this series of designers Ritu Beri was the first Indian Designer who showcase a collection in Paris, Her design represents a rare sense of eminence and luxe richness of India which proved to be a glorifying period for Indian industries as it was the first step in international market not only this there are multiple designers and their fashion label's which are working on sustainability along with Indian textiles and techniques, contributing in our Indian fashion industry. Example- Shift by Nimish Shah, Ka Sha by Karishma Shahani, Grassroot by Anita Dongre, Eka by Rina Singh are some designer labels.

As per designers, garment is constructed with a series of story line which are crafted with contemporary designs, combinations of colors and embroideries along with traditional techniques, prints, textiles and all of this is done while keeping sustainability in preference. Our young, forward-thinking Indian designers work goes beyond beautiful design and highlights fair practices, social responsibility, and environmental sustainability – elements that truly set their creations apart which are inspired by rich heritage, showcasing Indian aesthetics with a modern sensibility. This proves that our designers are creating new way towards sustainable fashion approach which is followed by all national and international designers worldwide.

CONCLUSION

Indian fashion has always stand out among all the fashion industries within the world. India has an old-charm fashion which is adopted by all. India has given the world a creation sphere of heritage, traditions, folk love about the cultural aura of its own fashion which itself features a historic foundation because its style is the most running fashion segment not only this, India has been a muse to the international fashion. This cultural land from the very beginning putting things together because it's sheer amount of diversity, techniques, art, crafts and history from each and every region is immense, and no other country can come near to it.

From king's dynasty till our leaders this land has always promoted the sustainable fashion and therefore the plus point about its years and years passed but its richness, elegance and artistic elements has remained identical and preserved by its people and promoters. Our designers and craftsmen are inspiration for other designers as they showcase the way to design without losing your roots; they're the developers of this redefining age of fashion. Lastly "Fashion has always been a part of classic time costume & techniques which reflects the magnificent era".

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CONCEPT OF TRANSVERSALITY AND MORSE THEOREM

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ABSTRACT

In This paper the concept of transversality due to Thom is introduce. This is the smooth counterpart of the notion of general position and is used similarly to extract from messy entanglements their essential geometric content. In this paper it is applied to prove that every function can be approximated by one with a very regular behavior at singularities, at Morse function. It is also used to define intersection Numbers.

The notion of transversality is a smooth equivalent of the notion of general position. For instance, two sub manifolds M^m and V^r of N^n , $n \leq m + r$, are transversal if their intersection looks locally like the intersection in R^n of the subspace of the first m coordinates with the subspace of the last r coordinates.

This geometric idea is properly expressed as transversality of maps and defined in terms of their differentials. This is done in Section 1. The ability of deform maps to a transversal position is one of the most powerful techniques of differential topology. A general theorem in this direction is given here in 2.1

TRANSVERSAL MAPS AND MANIFOLDS

(2.1.1)

Definition: Let $f: M \rightarrow N$, $g: V \rightarrow N$ be two smooth maps. We say that f is transversal to g , $f \pitchfork g$, if when ever $f(p) = g(q)$, then

$$Df(T_p M) + Dg(T_q V) = T_{f(p)} N.$$

Note that this condition is equivalent to the requirement that the composition be surjective.

$$T_p M \xrightarrow{Df} T_{f(p)} N \xrightarrow{Dg(T_q V)}$$

Be surjective.

Obviously, if $\dim M + \dim V < \dim N$, then $f \pitchfork g$ is possible only if $f(M)$ and $g(V)$ are disjoint.



The notation $f \uparrow g$ will be replaced by $f \uparrow V$ whenever V is a submanifold and g an identity map. The meaning of $M \uparrow V$ is also clear.

In certain situations the second map in 2.1.2 is a differential of a map ;hence the composition is also a differential. This is the case when V is a fibre of a smooth fibre bundle N with projection π . Then, if f maps a manifold M into N , the differential of πf is precisely the composition in.

2.1.2. This differential is surjective if and only if the point $\pi(V)$ is a regular value of πf . Thus we have:

(2.1.3)

Proposition: *Let $f: M \rightarrow N$, where N is a smooth fiber bundle with projection π , and let F_q be a fiber over a point q . Then $f \uparrow F_q$ is surjective if and only if q is a regular value of πf .*

Viewing the product $W \times V$ as a bundle over W , we obtain from this and the Brown-Sard Theorem the following:

(2.1.4)

Corollary: *If $f: M \rightarrow W \times V$, then there is a dense set of points $q \in V$ such that $f \uparrow W \times \{q\}$.*

As another corollary we have a characterization of cross sections:

(2.1.5)

Corollary: *Let N be a smooth fiber bundle over M . A submanifold $V \subset N$ is a cross section of the bundle if and only if V intersects every fiber F_q transversely in a single point $s(q)$.*

Proof : The necessity is clear. To prove that the condition is sufficient we have to show that the map $s: M \rightarrow N$ is smooth. To do this, we first note that s is the inverse of $\pi|_V$ and that, by 1.1.3,

$$D(\pi|_V) : T_{s(q)}V \rightarrow T_qM$$

is surjective. Since $\dim V = \dim M$, $D(\pi|_V)$ is an isomorphism. Now, it follows from the Implicit Function Theorem that the inverse of $\pi|_V$ is smooth.

For example, if V is the image of the imbedding $\mathbb{R} \rightarrow \mathbb{R}^2$ given by

$$t \rightarrow (t^3, t),$$

then V is a smooth submanifold of \mathbb{R}^2 and a continuous section of \mathbb{R}^2 considered as a trivial line bundle over the x axis. But it is not a smooth section: It is not transversal to the y axis.



The notion of transversality generalizes that of a regular value: If $f: M \rightarrow N$ and $q \in N$, then q is a regular value of f if and only if $f^{-1}(q) \neq \emptyset$ and $(f|_{\partial M})^{-1}(q) \neq \partial M$. Replacing q by a closed submanifold V , we obtain the following generalization of 1.1.7:

(2.1.6)

Proposition: If $f|_{\partial M} \neq V$ and $(f|_{\partial M})^{-1}(V) \neq \partial M$ then $W = f^{-1}(V)$ is a neat submanifold of M . Moreover, $\nu W = f^* \nu V$.

Proof: Let $p \in W$ and $q = f(p)$. By II, 1.2.3(b) there is in N a neighbourhood U of q and a map $h: U \rightarrow \mathbb{R}^r$ such that

$$U \cap V = h^{-1}(0)$$

Moreover, we can identify Dh at q with

$$T_q N \rightarrow T_q N / T_q V.$$

Now,

$f^{-1}(U)$ is an open neighbourhood of p ,

$$f^{-1}(U) \cap W = f^{-1}h^{-1}(0),$$

and both Dhf and $D(hf|_{\partial M})$ are surjective by the assumption. By 1. 2.3(b) again, W is a submanifold of M .

Note that $\text{codim}_M(W) = \text{codim}_N(V)$.

Let now d be the dimension of the kernel of the composite map

$$T_W M \xrightarrow{Df} T_p N \xrightarrow{\pi} \nu V = \frac{T_p N}{T_p V}$$

Since $\pi^0 Df$ is surjective, $m - d \geq \text{codim } V$, i.e., $d \leq m - \text{codim } V = \dim W$. On the other hand, $TW \subset \text{Ker}(\pi^0 Df)$; thus

$d \geq \dim W$. It follows that $d = \dim W$; hence $\text{Ker}(\pi^0 Df) = TW$. Therefore $f: W \rightarrow V$ induces a bundle map

$$T_W M / TW = \nu W \rightarrow \nu V = T_p N / T_p V$$

A very nice application of 1.1.4 is a simple proof, due to M. Hirsch, of Brouwer's Fixed Point Theorem.

(2.1.7)

Theorem: There is no (continuous) retraction $D^n \rightarrow \partial D^n$.

Proof: Observe first that it is enough to prove that there is no smooth retraction. For if



$$r: D^n \rightarrow \partial D^n.$$

is a continuous retraction, then there is a smooth $1/2$ -approximation r' to r that is also the identity map on ∂D^n . This is not yet a retraction, but since the origin is not in $r'(D^n)$ we can compose r' with the projection from the origin to obtain a smooth retraction.

Suppose now that $r: D^n \rightarrow \partial D^n$ is a smooth retraction, let $p \in \partial D^n$ be a regular value of r , and let L be the connected component of $r^{-1}(p)$ containing p . Since $r^{-1}(p)$ is a neat submanifold, L is an arc with end points p and q , $p \neq q$ and $q \in \partial D^n$. This implies $p = r(q) = q$, a contradiction.

The notion of transversality already appeared, in disguise, in the definition of neat submanifolds: 1.2.8.1 means nothing else but that $M \nabla N$. Moreover, as we have seen, this condition characterizes neat submanifolds.

The following theorem, which for simplicity is stated for closed manifolds only, provides the expected geometric justification of the definition of transversality.

(2.1.8)

Theorem : Let M^m and V^r be closed transversal submanifolds of N^n and let $p \in M \cap V$. If $n \leq m + r$, then there is in N a chart U about p in which $U \cap M$ is represented by the space of the first m coordinates and $U \cap V$ is represented by the space of the last r coordinates.

Proof : We will prove this in the special case $\dim N = m + r$. we can say that there is a chart U in N about p such that $U \cap M$ corresponds to the space of the first m coordinates. We will simply identify this chart with $\mathbb{R}^m \times \mathbb{R}^r$. The part of V lying in it can then be represented by an image of \mathbb{R}^r under an imbedding

$$f: \mathbb{R}^r \rightarrow \mathbb{R}^m \times \mathbb{R}^r,$$

where

$$f(y) = (\alpha(y)\beta(y)) \text{ and } f(0) = 0 = p.$$

The transversality assumption means that the Jacobean of β is of rank r at 0. Now, consider the map

$$g: \mathbb{R}^m \times \mathbb{R}^r \rightarrow \mathbb{R}^m \times \mathbb{R}^r$$

given by

$$g(x, y) = (x + \alpha(y)\beta(y)) \quad x \in \mathbb{R}^m, Y \in \mathbb{R}^r.$$



Note that g at 0 is of rank $m + r$; hence it is a chart if restricted to a suitably small neighbourhood U of 0 in $\mathbb{R}^m \times \mathbb{R}^r$.

Since

$$g(0, y) = f(y), \quad g(x, 0) = (x, 0),$$

it is precisely the chart we were looking for.

(2.1.9)

Corollary: Let M^m, V_1^r, V_2^r be submanifolds of N^n , $n = m + r$. Suppose that V_1, V_2 intersect M in the same point p and that this intersection is transversal. Then there is an isotopy of N that keeps M fixed and brings V_1 to coincide with V_2 in a neighbourhood of p .

Proof : By 1.1.6 there is a chart $U = \mathbb{R}^m \times \mathbb{R}^r$ in N about p that intersects M in $\mathbb{R}^m \times 0$ and V_1 in $0 \times \mathbb{R}^r$. A sufficiently small chart $U_2 = \mathbb{R}^r$ about p in V_2 is represented in U as an imbedded \mathbb{R}^r transversal to $\mathbb{R}^m \times 0$ and intersecting it in the origin.

Now, choosing “straighten” U_2 by an isotopy so that it becomes a linear subspace of $\mathbb{R}^m \times \mathbb{R}^r$ still transversal to $\mathbb{R}^m \times 0$. An obvious isotopy brings it then to coincide with $0 \times \mathbb{R}^r$. These isotopies restricted to the unit disc D^r in U_2 and set to be stationary on M extend to an isotopy of N that sends

$$D^r \subset V_2 \text{ to } V_1.$$

2.2

TRANSVERSALITY THEOREM

The concept of transversality derives its strength from the theorem of Thom asserting that if $f : M \rightarrow N$ and V is a submanifold of N , then f can be approximated by maps transversal on V . We will obtain the theorem of Thom as a consequence of the following fundamental theorem:

(2.2.1)

Theorem: Let ξ be a vector bundle over V and let $f : M \rightarrow N = E(\xi)$ be a smooth map. Then there is a section $s : V \rightarrow E$ such that $f \upharpoonright V$ is homotopic to s .

Before proving 2.2.1 we will consider the following situation: We are given a fiber bundle ζ with projection π and base E , and maps

$$f: M \rightarrow E, g: V \rightarrow E(\zeta).$$

This yields a diagram

$$\begin{array}{ccc} M_1 = E(f * \zeta) & \xrightarrow{f_1} & E(\zeta) \xleftarrow{g_1} V \\ \downarrow & \downarrow & \swarrow \\ M & \xrightarrow{f} & E \end{array}$$

Dig : 2.2 (a)

where M_1, π_1 are, respectively, the total space and the projection of the induced bundle $f * \zeta$, f_1 is the natural map, and $g = \pi g_1$. We have:

(2.2.2)

Proposition: If $f_1 \uparrow g_1$ then $f \uparrow g$.

Proof : Suppose that $f(p) = g(q)$. We have to show that

$$Df(T_p M) + Dg(T_q V) = T_{f(p)} E.$$

Note first that there is a point P_1 in M_1 such that $f_1(P_1) = g_1(q)$ and

$\pi_1(P_1) = p$. The assumption $f_1 \uparrow g_1$, means that

$$Df_1(T_{P_1} M_1) + Dg_1(T_q V) = T_{f_1(P_1)} E(\zeta)$$

Now apply $D\pi$ to both sides of this and note that $D\pi, D\pi_1$ are both surjective. Thus, by commutativity,

$$\begin{aligned} T_{f(p)} E &= D\pi(T_{f_1(P_1)} E(\zeta)) \\ &= D\pi f_1(T_{P_1} M_1) + D\pi g_1(T_q V) \\ &= Df(T_{\pi_1(P_1)} M) + Dg(T_q V) \end{aligned}$$

Proof of 2.2.1 Assume first that ξ is trivial, i.e., $E = V \times \mathbb{R}^k$. Then 1.3.1 yields a (dense set of points) q in \mathbb{R}^k such that $f \upharpoonright V \times \{q\}$. Of course, each such $V \times \{q\}$ can be interpreted as a section of ξ , which proves 2.2.1 for a trivial bundle ξ .

In the general case there is a bundle η such that $\zeta = \xi \oplus \eta$ is trivial. There is a natural projection π of $E(\zeta)$ onto E , which is a projection of a vector bundle. Thus we have the left part of diagram 2.2(a)

Since ζ is trivial, there is a section g , transverse to f_1 . This completes the diagram 2.2(a) and we can apply 2.2.2 to deduce that $g \upharpoonright f$. It remains to be shown that g is a section of ξ . This follows from the fact that g_1 is a section and the obvious commutativity of the diagram

$$\begin{array}{ccc} & & E(\zeta) \rightarrow V, \\ & \swarrow & \\ & \downarrow & \\ & E & \end{array}$$

where all maps are projections of vector bundles.

2.3

THE MORSE LEMMA

Let X be a smooth manifold, $f: X \rightarrow \mathbb{R}$ a smooth function. Since \mathbb{R} is one dimensional as a manifold, the derivative of f must have rank zero or one at each $p \in X$.

Thus a critical point p of f is simply a point for which all the partial derivatives of f vanish. Relative to any coordinate system we have:

$$\left(\frac{\partial f}{\partial x_1} \right)_p = \dots = \left(\frac{\partial f}{\partial x_n} \right)_p = 0$$

However, not all critical points are created equal. The following tool encodes the critical information that we will use to construct normal forms for the structure of functions near most critical points.

Definition 2.3.1.

Let $f: X \rightarrow \mathbb{R}$ be a smooth function.

(1) The *Hessian* of f at p , with respect to local coordinates x_1, \dots, x_n , is the matrix

$$H_p f = \left(\frac{\partial^2 f}{\partial x_i \partial x_j} \right)_p$$

of second order partial derivatives:

$$\begin{bmatrix} \left(\frac{\partial^2 f}{\partial x_1^2} \right)_p & \cdots & \left(\frac{\partial^2 f}{\partial x_n \partial x_1} \right)_p \\ \vdots & \ddots & \vdots \\ \left(\frac{\partial^2 f}{\partial x_n \partial x_1} \right)_p & \cdots & \left(\frac{\partial^2 f}{\partial x_n^2} \right)_p \end{bmatrix}$$

(2) A critical point p of f is degenerate if $\det H_p(f) = 0$. Otherwise, p is non-degenerate.

(3) The index of f at a non-degenerate critical point p is the maximum dimension of a vector subspace of \mathbb{R}^n on which $H_p(f)$ is negative definite.

Remark 2.3.2 $H_p(f)$ is negative definite on V if the corresponding bilinear form

$$H : \mathbb{R}^n \times \mathbb{R}^n \rightarrow \mathbb{R}$$

is negative definite, i.e. $H(v, v) < 0$ for every non-zero $v \in V$.

Equivalently, the index can be viewed as the number of negative Eigen values of the non-singular Hessian matrix.

Note that we have defined the Hessian of f at p in a way that depends on the

particular chart chosen at p . There also exists an invariant formulation of the Hessian using the concept of intrinsic derivative. While we have avoided the latter approach for simplicity, we must now do a little work to verify that the degeneracy and index of a function at a point are well-defined notions.

Proposition 2.3.4. *The degeneracy and index of f at p do not depend on the coordinates chosen on X .*

Proof. Let $A = H_p(f)$ be the Hessian matrix with respect to the coordinates

x_1, \dots, x_n given by a chart (U, φ) of X at p .

Let

$$\varphi: \varphi(U) \rightarrow \varphi(U)$$

be a change of coordinates defined by



$$\varphi(x_1, \dots, x_n) = (y_1(x_1, \dots, x_n), \dots, y_n(x_1, \dots, x_n)).$$

Then the matrix $P = (d\varphi)_0$ is non-singular, and the matrix of the Hessian of f at p with respect to the coordinates y_1, \dots, y_n is given by $(P^{-1})^T A P^{-1}$.

The latter claim is an exercise in quadratic forms, namely that a change of coordinates replaces a quadratic form with matrix A by a quadratic form with matrix $B^T A B$, where B is non-singular. Clearly A is singular iff $B A B^T$ is singular. And if A is non-singular, then A and $B A B^T$ have the same index by Sylvester's Law.

By the Submersion Lemma, a smooth function is locally equivalent at a regular point to projection onto the first coordinate. The Morse Lemma provides normal forms for the local behavior of smooth functions at non-degenerate critical points.

Theorem 2.3.5 (Morse Lemma). *Let $f: X \rightarrow \mathbb{R}$ be a smooth function, $p \in X$ a non-degenerate critical point of f , and λ the index of f at p . Then near p , f is equivalent to the map*

$$(x_1, \dots, x_n) \rightarrow x_1^2 - \dots - x_\lambda^2 + x_{\lambda+1}^2 + \dots + x_n^2$$

Our proof of the Morse Lemma fleshes out the sketch given by Milnor and will require the following calculus result.

Lemma 2.3.6. *Let f be a smooth function on some convex region $V \subset \mathbb{R}^n$, with $f(0) = 0$. Then there exist smooth functions (g_1, \dots, g_n) on V with*

$$f(x_1, \dots, x_n) = \sum_{i=1}^n x_i g_i(g_1, \dots, g_n)$$

and

$$g_i(0) = \frac{\partial f}{\partial x_i}(0) \text{ for every } 1 \leq i \leq n$$

Proof: Let

$$\begin{aligned} & f(x_1, \dots, x_n) \\ &= \int_0^1 \frac{df}{dt}(x_1 t, \dots, x_n t) dt \end{aligned}$$

$$= \int_0^1 \sum_{i=1}^n \frac{\partial f}{\partial x_i}(x_1 t, \dots, x_n t) dt$$

by the fundamental theorem of calculus and the chain rule. Note that convexity guarantees that the above integral is defined. So it suffices to set

$$g_1(x_1, \dots, x_n) = \int_0^1 \frac{\partial f}{\partial x_i}(x_1 t, \dots, x_n t) dt$$

where $g_i(0) = \frac{\partial f}{\partial x_i}(0)$ again follows from the fundamental theorem of calculus.

Proof of the Morse Lemma. In *Part A*, we will prove the existence of a change of coordinates on the domain which yields the diagonalized quadratic form

$$f(p) \pm x_1^2 \pm \dots \pm x_n^2.$$

In *Part B* we will show that the index of

$$f(p) - x_1^2 - \dots - x_\lambda^2 + x_{\lambda+1}^2 + \dots + x_n^2 \text{ at } 0 \text{ is } \lambda.$$

Part A. We can assume without loss of generality that $0 = p = f(p)$ and $X = \mathbb{R}^n$, since we are only concerned with local equivalence., there exist smooth functions (g_1, \dots, g_n) on \mathbb{R}^n with

$$f(x_1, \dots, x_n) = \sum_{i=1}^n x_i g_i(x_1, \dots, x_n)$$

and

$$g_i(0) = \frac{\partial f}{\partial x_i}(0)$$

Since $0 \in \mathbb{R}^n$, is a critical point, we have $\frac{\partial f}{\partial x_i}(0) = 0$

for every $1 \leq i \leq n$. Therefore, this time to each of the g_i . So there exist smooth functions h_{ij} , $1 \leq i, j \leq n$, such that

$$g_i(x_1, \dots, x_n) = \sum_{j=1}^n x_j h_{ij}(x_1, \dots, x_n)$$

Substitution gives

$$f(x_1, \dots, x_n) = \sum_{i,j=1}^n x_i x_j h_{ij}(x_1, \dots, x_n)$$

Furthermore, we can assume $h_{ij} = h_{ji}$ (otherwise replace each h_{ij} with

$$1/2 (h_{ij} + h_{ji}).$$



Differentiating gives $\frac{\partial^2 f}{\partial x_i \partial x_j}(0) = 2h_{ij}(0)$, so the matrix

$$(h_{ij}(0)) = \left(\frac{1}{2} \left(\frac{\partial^2 f}{\partial x_i \partial x_j}(0) \right) \right).$$

By hypothesis, 0 is a non-degenerate critical point of f , so we conclude that $(h_{ij}(0))$ is non-singular.

We now proceed as in the proof of the diagonalization of quadratic forms.

Suppose by induction that there exist coordinates u_1, \dots, u_n on a neighbourhood U_1 of 0 such that

$$f(u_1, \dots, u_n) = \pm u_1^2 \pm \dots \pm u_{r-1}^2 + \sum_{i,j=r}^n u_i u_j H_{i,j}(u_1, \dots, u_n)$$

on U_1 , where the H_{ij} are smooth functions with $H_{ij} = H_{ji}$ and the matrix $(H_{ij}(0))$ non-singular. We have already established the base case $r = 0$.

For the induction step, we first show that we can make $H_{rr}(0) \neq 0$ by a non-

singular linear transformation on the last $n-r+1$ coordinates. The proof works the same for any r , so for simplicity

let $r = 1$. If we have $H_{ii}(0) \neq 0$ for some $1 \leq i \leq n$ then we are done by transposing u_1 and u_i . Otherwise, since $(H_{ij}(0))$ is non-singular,

there exists some $H_{ii}(0) \neq 0$ with $i \neq j$. Through a pair of transpositions, we can assume $H_{11}(0) = 0$ and $H_{12}(0) =$

$H_{21}(0) \neq 0$. We define a new set of coordinates u_1', \dots, u_n' on U_1 by

$$u_1' = \frac{1}{2}(u_1 + u_2)$$

$$u_2' = \frac{1}{2}(u_1 - u_2)$$

$$u_i' = u_i \text{ for } i > 2$$

This linear transformation is invertible with inverse given by

$$u_1 = (u_1' - u_2')$$

$$u_2 = (u_1' + u_2')$$

$$u_i = u_i' \text{ for } i > 2$$

Substituting in these new coordinates and regrouping terms, we have



$$f(0) = \sum_{i,j=1}^n u_i' u_j' H'_{ij}(0)$$

with

$$H'_{11}(0) = H_{12}(0) + H_{21}(0) = 2H_{12} \neq 0$$

So without loss of generality we assume $H_{rr}(0) > 0$ (sending u_r to $-u_r$ if necessary). Then there exists a neighbourhood

$U_2 \subset U_1$ on H_{rr} is positive. We define a new set of coordinates v_1, \dots, v_n by

$v_i = u_i$ for $i \neq r$.

$$v_r = \sqrt{H_{rr}(u_1, \dots, u_n)} \left[u_r + \sum_{i>r} \frac{u_i H_{ir}(u_1, \dots, u_n)}{H_{rr}(u_1, \dots, u_n)} \right]$$

Note v_r is well-defined and smooth on U_2 . A simple calculation shows

$$\frac{\partial v_r}{\partial u_r} = \sqrt{H_{rr}}$$

So $\frac{\partial v_r}{\partial u_r}(0) \neq 0$ It follows from the Inverse Function Theorem that the change of coordinates map ϕ defined by

$$(u_1, \dots, u_n) \rightarrow (v_1(u_1, \dots, u_n), \dots, v_n(u_1, \dots, u_n))$$

is a diffeomorphism in some sufficiently small neighbourhood $U_3 \subset U_2$ of 0. Then

$$\begin{aligned} f &= \pm u_1^2 \pm \dots \pm u_{r-1}^2 + \sum_{i,j=r}^n u_i u_j H_{ij} \\ &= \pm u_1^2 \pm \dots \pm u_{r-1}^2 + \left[u_r^2 H_{rr} + 2u_r \sum_{i>r} u_i H_{ri} + \sum_{i>r} \frac{u_i^2 H_{ii}}{H_{rr}} \right] \\ &\quad + \sum_{i>r} \frac{u_i^2 (H_{ii} - H_{ii})}{H_{rr}} + \sum_{i,j>r, i \neq j} u_i u_j H_{ij} \end{aligned}$$

The term in brackets is v_r^2 so it is clear that we can choose smooth functions $H'_{ij}(v_1, \dots, v_n)$ for $i > r$ so that

$$f(v_1, \dots, v_n) = \sum_{i=1}^r \pm v_i^2 + \sum_{i,j>r} v_i v_j H'_{ij}(v_1, \dots, v_n)$$

with $H'_{ij} = H'_{ji}$

Further more,

$$(H'_{ij}(0)) = ((d\phi)_0^{-1})^T (H_{ij}(0)) (d\phi)_0^{-1}$$

is non-singular.

This completes the induction step and the first part of the proof.

Part B. Define $g : \mathbb{R}^n \rightarrow \mathbb{R}$ by

$$g(x_1, \dots, x_n) = g(p) - x_1^2 - \dots - x_\lambda^2 + x_{\lambda+1}^2 + \dots + x_n^2$$

Computing partial derivatives we have

$$H_p(g) = \begin{bmatrix} -2 & & & \\ & \ddots & & \\ & & -2 & \\ & & & \ddots \\ & & & & -2 \end{bmatrix}$$

The first λ basis vectors span a subspace $V \subset \mathbb{R}(n)$ on which $H_p(g)$ is negative definite, so the index of g at p is at least λ . The latter basis vectors span a subspace $W \subset \mathbb{R}^n$ of dimension $n - \lambda$, on which $H_p(g)$ is positive definite.

If there exists a subspace V' of dimension greater than λ on which $H_p(g)$ is positive definite, then V' and W would intersect nontrivially, a contradiction. Therefore, the index of g at p equals λ .

A function $f : X \rightarrow \mathbb{R}$ is called *Morse* if all of its critical points are non-degenerate. Between the Submersion Lemma and the Morse Lemma, we have completely determined the local structure of Morse functions.

2.4. MORSE FUNCTIONS

Suppose now that we are given a real valued function $f : M \rightarrow \mathbb{R}$. If, at a point $p \in M$, Df is non-degenerate, then, as we know, f at p is equivalent to a projection: non-degenerate in this case means the same as being of maximal rank. If Df is degenerate at p , i.e., p is a critical point, then the local behavior of f at p can be quite complicated.



A fundamental idea due to M. Morse was to single out a class of functions with a particularly nice behavior at critical points and to show that they form a dense set, “Nice behavior” means that at critical points they behave like- i.e., are equivalent to-one of the quadratic functions $\sum \delta_i x_i^2$ at 0, $\delta_i = \pm 1$ In particular, the list of possibilities is- up to equivalence-finite.

As usual, we prefer an invariant definition and the easiest way is to work in the cotangent space. Recall that, given

$$f: M \rightarrow \mathbb{R}, df: M \rightarrow T^*M$$

is the section of the cotangent bundle given at

$$p \in M \text{ by } df(X) = X(f), X \in T_p M.$$

(2.4.1) Definition: We say that $p \in M$ is critical if $df = 0$ at p , i.e., if df intersects the zero section M_0 of the cotangent bundle above p . We say that p is a non-degenerate critical point if this intersection is transversal. A function f which has only non degenerate critical points, that is, such that $df \nmid M_0$ is called a Morse function.

(2.4.2)

Lemma: Critical points of a Morse function are isolated.

We will delay for a moment the investigation of the local behavior of Morse functions and begin by showing that there are, indeed, a lot of them.

(2.4.3)

Lemma : Let M be a submanifold of \mathbb{R}^k and let $f: M \rightarrow \mathbb{R}$. There is a dense set of linear functions $L: \mathbb{R}^k \rightarrow \mathbb{R}$ such that $f - L$ restricted to M is a Morse function.

Proof We will build a diagram of spaces and maps in the following way:

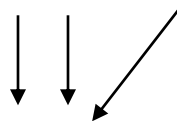
Begin with the cotangent bundle of \mathbb{R}^k restricted to M , i.e., $T^*\mathbb{R}^k/M$. This is also a bundle over T^*M with the projection π .

Then the map

$$df: M \rightarrow T^*M$$

yields the induced bundle with total space E and all this forms the

$$E \xrightarrow{g} T^*R^k|_M \xleftarrow{dL|_M} M$$



$$M \xrightarrow{df} T^*M$$

To get the triangle on the right, note that $T^*R^k|_M$ is a trivial bundle, hence by 1.3.1 there is a dense set of constant sections $M \times \{q\}$ that are transverse to g . A constant section is a differential of a linear map $L: R^k \rightarrow R$. Thus to complete the diagram we choose as L a linear map such that $dL|_M \uparrow g$ and observe that

$$\pi^0 dL|_M = d(L|_M).$$

Now, 2.2.2 implies that $df \uparrow d(L|_M)$, i.e., that $d(f - L|_M)$ is transversal to the zero section.

(2.4.4)

Theorem : *Given $f: M \rightarrow R$ and $\epsilon > 0$, there is a Morse function $g: M \rightarrow R$ such that $|f - g| < \epsilon$.*

Proof: Consider M as a submanifold of the unit ball in an R^k and take as L a linear function such that $|L| < \epsilon$ in the ball.

Now, let M be a manifold with compact boundary and suppose that $\partial M = V_0 \cup V_1$ where the V_i are disjoint and compact.

(2.4.5)

Theorem: *There is a Morse function $f: M \rightarrow I$ such that:*

(a) *f has no critical points in a neighbourhood of ∂M ;*

(b) *$f^{-1}(i) = V_i, i = 0, 1$.*

Proof: Let $\partial M \times [0, 1) \subset M$ be a collar of ∂M . there is a smooth function $g: M \rightarrow I$ with the following properties:



$$g(x, t) = t \quad \text{for } (x, t) \in V_0 \times [0, 1/2],$$

$$g(x, t) = 1 - t \quad \text{for } (x, t) \in V_1 \times [0, 1/2],$$

$$1/4 < g(x) < 3/4 \text{ elsewhere.}$$

Then g has properties (a) and (b) but is not necessarily Morse. To obtain a Morse function we assume that M is a submanifold of the unit ball in an \mathbb{R}^k and consider the function $f = g + \mu L$, where $\mu: M \rightarrow \mathbb{R}$ is smooth, equals 0 in $\partial M \times [0, 1/2]$ and equals 1 in $M - \partial M \times [0, 1/2]$ and L is a still to be chosen linear map of \mathbb{R}^k .

Clearly, f satisfies (a) and, if $|\mu| < 1/4$ in M , then it satisfies (b) as well.

Assume that some Riemannian metric is given in T^*M .

Since

$$|d(\mu L)| \leq |d\mu||L| + \mu|dL|$$

we see that by taking L “small” we can make $|d(\mu L)|$ as small as we want in the compact set $\partial M \times [0, 1/2]$. In particular, since $|dg|$ is bounded away from 0 in this set, we can achieve that

$$|d(g + \mu L)| \geq |dg| - |d(\mu L)| > 0$$

in $\partial M \times [0, 1/2]$.

i.e., that f has no critical points there. Then, if L is such that $g + L$ is Morse in M , the same is true of $f = g + \mu L$.

2.5 Morse Functions are Generic

We have seen that Morse functions have simple local behavior, but this result would be of little use if few functions satisfied the Morse property. In this section, we will see that in fact almost all functions are Morse. First, we had better make almost all precise.

Definition 2.5.1 A property P is *generic* if the set

$$\{f \in C^\infty(X, Y) \mid f \text{ has property } P\}$$

is a residual subset of $C^\infty(X, Y)$.



The goal of this section is to show that the quality of being Morse is a generic property of smooth functions. Our strategy will be to translate non-degeneracy into a transversality condition on jets and apply the Thom Transversality Theorem.

S_r is the smooth submanifold of $J^1(X, \mathbb{R})$ consisting of those jets which drop rank by r . For a smooth function $f: X \rightarrow \mathbb{R}$, only S_0 and S_1 can be non-empty.

Moreover,

$$j^1 f: X \rightarrow J^1(X, \mathbb{R})$$

maps critical points to S_1 and regular points to S_0 . The following proposition provides the key link between non-degeneracy and transversality.

Definition 2.5.2 Let $f: X \rightarrow Y$ be a smooth map of manifolds. f is *stable* if the equivalence class of f is open in $C^\infty(X, Y)$, with the C^∞ topology.

Informally, f is stable if all nearby maps look like f . Note that if f is stable, then all of its differentially invariant properties are unchanged by sufficiently small perturbations of f .

2.6 NEIGHBORHOOD OF A CRITICAL POINT

There remains to investigate the behavior of a Morse function in a neighbourhood of a critical point.

Suppose that p is a critical point of $f: M \rightarrow \mathbb{R}$ and choose a local chart at p . The Hessian of f at p is the matrix of second derivatives of f at p . It depends on the choice of the local chart. However:

(2.6.1)

Lemma: Let p be a critical point of f . Then p is non-degenerate if and only if the Hessian of f at p is of maximal rank.

Proof: A choice of a chart in a neighbourhood U of p also gives a trivialization of the cotangent bundle restricted to U , that is, a projection

$$\phi: T^*M|_U \rightarrow T_p^*M.$$

p is non-degenerate if and only if $0 \in T_p^*M$ is a regular value of ϕdf , i.e., if the differential of this map at p is surjective.

In the chosen local coordinate system this means that the Jacobean of ϕdf is to be of maximal rank. However, the map ϕdf simply assigns to every point the coordinates of df at this point; thus its Jacobean is the Hessian of f at P .

(2.6.2)

Proposition: Suppose that p is a non-degenerate critical point of f :

Then in some system of local coordinates at p , f is given by

$$f(p) + \sum_i \delta_i x_i^2, \delta_i = \pm 1$$

Proof: Let f be a real valued function defined in a neighbourhood of $0 \in \mathbb{R}^m$.

Suppose that the Hessian of f at 0 is of maximal rank and that $f(0) = 0$.

We have to show that there is a diffeomorphism h of a neighbourhood of 0 such that

$$fh(x_1, x_2, \dots, x_m) = \sum_{i \leq k} x_i^2 - \sum_{i > k} x_i^2$$

This will be done in two steps. In the first we show that

$$f(x) = \sum_{i,j} h_{ij} x_i x_j \dots (i)$$

where the h_{ij} are some functions of x and $h_{ij} = h_{ji}$. Thus f looks like a symmetric bilinear form-but with variable coefficients-which suggests that we should try to adapt one of usual procedures of diagonalization of such forms to our situation. This works, and that is the second step of the proof. Now the details.

Since f has a critical point at 0 we have, by A.2.2,

$$f(x) = \sum_i h_i(x) x_i$$

where $h_i(0) = \left(\frac{\partial f}{\partial x_i} \right) (0) = 0$.

We can apply the same lemma once more to h_i to get

$$h_i = \sum_j h_{ij} x_j.$$



Now, setting

$$h_{ij} = \frac{1}{2}(h_{ij} + h_{ji}) = (h_{ij} + h_{ji})$$

we finally obtain equation (i).

The diagonalization of f is now done inductively. Suppose that in some chart f is already in the form

$$f(x) = \pm x_1^2 + \cdots \pm x_{k-1}^2 + \sum_{i,j \geq k} h_{ij} x_i x_j \quad h_{ij} = h_{ji}$$

Through a linear change of coordinates we can achieve that $h_{kk}(0) \neq 0$

hence $h_{kk}(x) \neq 0$ in a certain neighbourhood U of 0. Consider the transformation $F: U \rightarrow \mathbb{R}^m$ given by

$$y_i = x_i \text{ for } i \neq k,$$

The Jacobean of F at 0 does not vanish: Its determinant equals $|h_{kk}(0)|^{1/2}$.

Therefore F is a diffeomorphism in a neighbourhood $V \subset U$ of 0 in \mathbb{R}^m .

Since

$$f \circ F^{-1}(y) = \sum_{i \leq k} \pm y_i^2 - \sum_{i,j > k} \frac{h_{i,j} h_{j,k}}{h_{kk}} y_i y_j$$

this concludes the inductive step.

The number of minus signs in this local representation off at a critical non-degenerate point p does not depend on the choice of chart; it is called the index of p .

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IMPORTANCE AND BENEFITS OF *VRIKSHASANA* IN DAILY LIFE

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ABSTRACT

Ayurveda is the science of life. It plays an important role to prevent and treat the disease. Ayurveda specifically deals with mind body balance. The main part of it is Yoga and Asana. Yoga provides us a simple remedies, facile skills and procedure of good health. Asana gives physical and mental power and tone the body-mind for further exercise. Vrikshasana is often referred to as the Tree Pose. Tree pose improves neuromuscular coordination. Vrikshasana is known for many important health benefits. Tree pose helps in bone development and proper alignment of the vertebral column as all the muscles are stretched in the same direction.

KEY WORDS- *Yoga, Asana, Vrikshasana, Tree Pose, Neuromuscular coordination.*

INTRODUCTION

Common name	<i>Vrikshasana</i>
English	Tree Pose
Sanskrit	<i>Vrikshasana</i>
All	Tree Pose, <i>Vrksasana</i> , <i>Vrikshasana</i> , <i>Vrikshasana</i>
Level	Beginner
Position	Standing
Chakra	Third Eye <i>Chakra</i> (<i>Ajna Chakra</i>) , Sacral <i>Chakra</i> (<i>Swadisthana Chakra</i>) , Root <i>Chakra</i> (<i>Muladhara Chakra</i>)
Dosha (Ayurveda)	<i>Pitta</i> , <i>Kapha</i>
Type	Balance, Stretch, Strength
Meridians	Spleen & Stomach

Vrikshasana Meaning

'Vrksa' means 'Tree' and hence *Vrikshasana* means 'Tree Pose'. The very name suggests the body in the final pose should look like a tree. A tree stands tall, strong and straight. Tree Pose (*Vrikshasana*) comes under the standing poses and balancing poses in yoga.

Vrikshasana is considered a base pose as *Vrikshasana* variations can be derived from this pose. *Vrikshasana* helps boost energy in the body and hence can be included in flow yoga sequences.

Vrikshasana Steps

- Stand upright. Your feet should be together and knees absolutely straight. The arms should be at the respective sides. Without bending the left knee, lift your right foot and hold the ankle with the right hand. Fold the right leg at the knee joint.
- Using both the hands, place the right heel on the left thigh as high as possible, toes pointing downwards. The right heel should press the inside

of the thigh. Balance yourself on the left leg. Now join your palms and fingers and bring them to the left leg. Now join your palms and fingers and bring them to the middle of the chest, fingers pointing upwards in prayer pose.

- Inhale and raise your joined hands slowly over your head. Stretch up and stand straight, keeping

your balance. Look in front and maintain this pose breathing normally.

- Exhale and lower your hands to the middle of the chest. Return to the starting position by lowering your right leg.
- Repeat the post with the other leg.



Fig no.1,2 Right side Vrikshasana, Left side Vrikshasana

Benefits-

Physical (Anatomical) Benefits

- Tree pose improves neuromuscular coordination.
- Tree pose (*Vrikshasana*) improves balance, endurance and alertness.
- Tree pose tones up the leg muscles and ligaments.
- Tree pose helps in bone development and proper alignment of the vertebral column as all the muscles are stretched in the same direction.

Benefits for Women

Helps relieve premenstrual symptoms like leg cramps and abdominal cramps.

Health Benefits

Relieves stress and anxiety as concentration is needed for balancing the body on one leg in Tree Pose.

- It strengthens the spine and improves balance and poise.
- Helps in neuro-muscular co-ordination.
- It tones up the leg muscles and strengthens the tendons and the ligaments of the feet.
- It strengthens the knee and loosens the hip joints.

- This pose also strengthens the shoulders, inner ears and eyes.
- It gives relief from sciatica and reduces flat feet.
- The Tree pose teaches you patience, makes you sturdy as well as flexible.
- It deepens the thorax.
- Most importantly, the Tree Pose enhances concentration and mental faculties. Hence it is largely recommended for your kids and students.

Vrikshasana: Tips for the Beginners

The beginners may find it difficult to bring the left foot high inside the right thigh. One can bring it lower on the right leg but never directly on the right knee. The same applies in the reverse position. You can also initially practice by holding the wall for balance.

- To aid your concentration before starting the exercise, take several deep breaths and fix your gaze on a point directly in front of you.

Science Behind Vrikshasana

This asana is mainly a balancing posture, and its main benefits lie in improving balance and enhancing



the nervous system. When you balance, you are forced to focus your mind, and as you focus, you will realize you are balancing. When the mind wanders, so does the body. Stress and tension forbid you from balancing.

While stabilizing your mind and body through stretching, this asana also strengthens your joints and bones and expands the hips and chest. It loosens the shoulders and tones the arms as well.

Precautions and Contraindications

- As Tree Pose (*Vrikshasana*) is a simple yoga pose for balancing, be aware of the body and the surroundings to avoid injury in case one falls.
- Tree pose practice should be avoided by patients with arthritis and/or vertigo.
- Obese people should avoid this yoga pose as it requires focus on balance.

Preparatory Poses

Before attempting this posture, getting mastery over the following *Yoga* poses will be more helpful.

- Plough Pose (*Halasana*)
- Locust Pose (*Shalabhasana*)
- Viparita Karani

Follow Up Poses

It is mandatory to follow up *Shoulder Stand* with *Matsyasana*. If for any reason, one could not follow up with it, any one of the following poses may be considered.

- *Chakrasana*
- *Dhanurasana*

Anatomy

Vrikshasana benefits the following muscles and hence can be included in yoga sequences with the corresponding muscle(s) focus:

- Hamstrings
- Hips
- Knees
- Quadriceps

Abductors on the standing leg are working eccentrically; if they are weak or tight, the hip of the lifted leg hikes up or the rotators (gluteus maximus, piriformis, and obturators) try to stabilize the pelvis and the pelvis rotates on the standing leg, rather than staying level and facing forward.

The more strength and adaptability you have in the feet and ankles, the more options you have for finding balance on the standing leg.

The action of the lifted leg, where the knee is drawn up and out to the side, is actually a very complex movement muscularly: Hip flexors are active to lift the knee, but with external rotation and abduction, hip extension also becomes involved. Then, in order to press the foot into the standing leg while keeping the knee out to the side (and without tipping the pelvis forward), the hip joint needs to adduct without flexion. Of course, the higher on the standing leg the foot is, the less it is necessary to press the foot in because the weight of the leg holds the foot in place. However, if it is necessary to use the adductors to press the foot into the standing leg, it is important to find adductors that are more posterior, such as the adductor magnus. Anterior adductors, such as the pectineus (which is short and active on many of us, in part from sitting so much), will tip the pelvis forward and internally rotate the lifted leg at the same time they are trying to adduct.

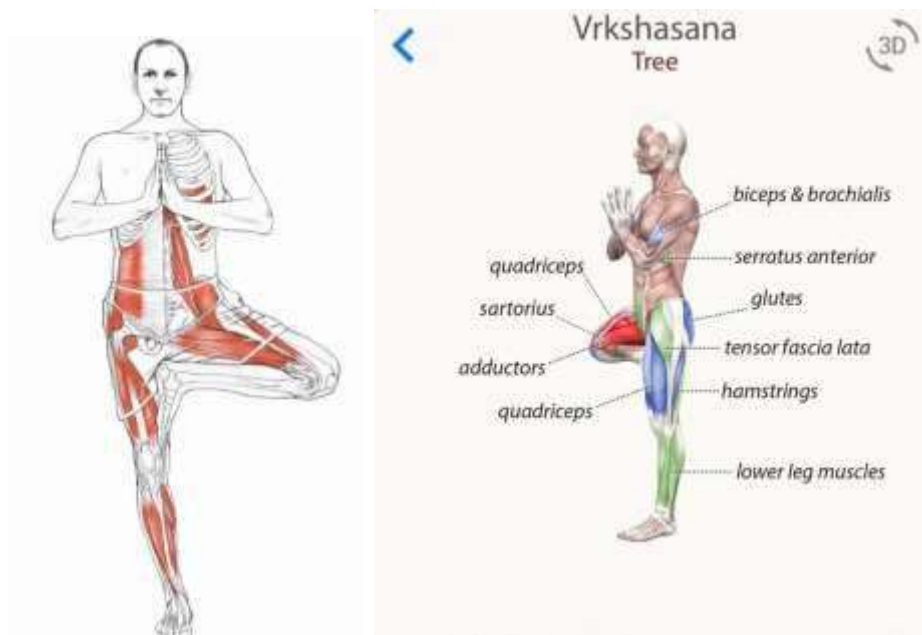


Fig no.2 Vrksasana

Vrksasana yoga sequences

Vrksasana is commonly found in the following types of yoga sequences:

- Kids yoga sequences
- Prenatal yoga sequences
- Postnatal yoga sequences
- Teens Yoga sequences
- Hip opening yoga sequences

Vrksasana Variations

Vrksasana Variations: Below are some common variations of the yoga pose Vrksasana with base pose as Tree Pose (Vrksasana).

Half Lotus Tree Pose Ardha Padma Vrksasana



Fig no.3. Eka Pada Sarvangasana (right side) Fig no.4. Eka Pada Sarvangasana (left side)



Fig no.5. Urdhva Padmasana Sarvangasana





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AN ANALYSIS OF SOME PSYCO-SOCIAL FACTORS AFFECTING HYPERTENSIVE PATIENTS AT THE P.H.C ARWAL

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ABSTRACT

The present study has been undertaken to ascertain the effect of SES and self concept on hypertension. For this purpose 50 patients suffering from hypertension were selected from PHC Arwal. Self concept scale by Dr S.M Mohsin and SES scale by kulshreshtha were used to measure the variables. t test was used to know the significance of differences between the variables. Obtained result shared the effect of high SES and hypertension but the role of self concept was not much significant.

KEY WORDS: Hypertension, Socioeconomic status, self concept, Blood pressure.

INTRODUCTION

The surging urbanization and modernization has made life very complex. People coming from any walk of life are facing a lot of health related issues, such as hypertension, diabetes, stroke and heart attack. Hypertension has been classified as type of psychophysiological disorder.

High blood pressure is called the silent killer because it often exhibits no symptoms for many years or even decades for that matter until it finally damages certain critical organs. By definition hypertension means high blood pressure over 140 mm of hg systolic and 90 mm of hg diastolic pressure, usually over several weeks and months.

There are many causes of hypertension. Some are biological, psychological, social etc. socioeconomic status (SES) and self concept is one of the triggers for hypertension. Persistent hypertension is one of the risk factors for the strokes, heart attack, heart failures and arterial aneurysm and is a leading cause of chronic renal failure. Even moderate elevation of arterial blood pressures leads to shortened life expectancy.

Impact of SES on hypertension is complicated and unclear (Grottol, 2008) SES includes education, occupation, social environment and life style. According to American Psychologists Association, SES is consistently associated with health outcomes, yet little is known about the psychological and behavioral mechanism that might explains this association.

Researches usually control SES rather than examine it. When it is studied, only effect of lower poverty of SES are generally examined. However, there is evidences of graded association with health at all levels of SES, an observation that requires a new thought about domains through which SES may exert its health effect.

Variables are that are highlighted shows a graded relationship with both SES and health to provide examples of possible pathway between SES and health end points (Psy INFO Diabetes Record ,2012 APA)

Present study also focused upon the relationship between self concept and hypertension. Self concept is the individual's phenomenon's logically, unitary concepts of belief and attitude towards himself, the organization of his self reflexive effective cognitive structure as reflected operationally in his description of himself / herself (Taylor 1095).

PURPOSE AND HYPOTHESIS

Purpose of this paper is to investigate into the effect of psychosocial factor on the hypertension. Hypertension is spreading like epidemic irrespective of caste, class or gender. So in this research the researcher is trying to find out the effect of self concept as a psychological factor and socioeconomic status as a social factor on the occurrences of hypertension. For the purpose of empirical investigation, the following hypothesis has been formulated.



1. It is hypothesized that the respondents who have high self concept group differs significantly from low self concept with respect to hypertension.
2. It is hypothesized that respondents belonging to high socioeconomic status will differ in hypertension from the low socio economic status group of respondents.

Research tools : self concept scale Dr S.M Mohsin was used to measure self concept of the respondents and the SES scale by kulshreshtha was used to measure SES of the respondent.

Procedure : In order to achieve highest cooperation and to obtain correct responses, a rapport was established with the respondents. Both the tests were administered individually along with personal data blank.

After the data was collected, the respondents were scored and tabulate and they were treated by t ratio, a parametric test.

MATERIALS AND METHODS

Sample : For the present study 50 patients suffering from hypertension were selected from PHC Arwal

RESULTS AND DISCUSSION

Table 1. Showing the significance of differences between the high SES and low SES groups in terms of hypertension

Subject	N	Mean	S.D	S.E.D	t	df	p
High SES group	25	86.36	2.49	1.035	11.48	45	≤ .01 significant
Low SES group	25	74.44	4.58				

Table 2. Showing the significance of differences between the high self concept and low self concept groups in terms of hypertension

Subject	N	Mean	S.D	S.E.D	t	df	p
High Self concept group	21	21	1.8	8.298	5.14	45	≥ .05 not significant
Low Self concept group	29	15.86	1.58				

The results contained in table 1 indicate the higher rate of hypertension among the higher socio-economic group (M=86.36) as compared to the patient among low socio-economic group (M=74.44). the differences between two means is significant (t=11.45, df=48, p ≤ .01).

Analysis of table 2 shows not significant difference among the low self concept group and high self concept group. Mean of high self concept group is 21 and mean of low self concept group is 15.58. The t value is t=5.14, df=48, p ≥ .05.

CONCLUSION

Hypertension is a psycho physiological disorder. The problem is a physical but causes of it are psychological. People belonging to high socio economic class have different type of stress. Due to their hectic lifestyle coupled with over ambition leads to an increased stress and its subsequent implications like hypertension. There is a need to develop and test culturally appropriate interventions to reduce the

prevalence of hypertension among these population to minimize the resultant cardiovascular morbidity and mortality.

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ANALYSIS OF SYNTHESIS PRODUCTS AND PRODUCTION TECHNOLOGY

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ANNOTATION

The world's most prestigious chemical and technological research institutes are working to develop the most efficient technological methods for obtaining environmentally friendly synthetic fuels. The question of what reactions produce the highest quality and purest synthetic fuel, and how to bring such technology to the industrial scale, is one of the most pressing tasks facing chemists and engineers today in the field of synthetic fuels.

KEYWORDS: *naphthalene, methane, ethane, propane, butane, olefins, diolefins, acetylene, benzene, toluene, xylenes, ethyl, isopropylbenzene.*

Annotatsiya

Ekologik bezarar sintetik yoqilg'i olishning eng samarali texnologik usullarini yo'lga qo'yish borasida hozirgi kunda jahonning eng nufuzli kimyo-texnologiya ilmiy dargohlarini izchil ish olib borilmoqda. Qaysi reaksiyalar natijasida eng sifatli va toza sintetik yonilg'i olinishi, bunday texnologiyaning sanoat miqyosiga olib chiqilishi masalalari hozirgi kun sintetik yoqilg'i masalalari bo'yicha izlanayotgan kimyogar-texnolog-muhandislar oldidagi eng dolzarb vazifadir.

Kalit so'zlar: Naftalin, metan, etan, propan, butan, olefinlar, diolefinlar, atsetilen, benzol, toluol, ksilollar, etil, izopilbenzol.

INTRODUCTION

The development of the petrochemical industry is accompanied by an increase in the production of petrochemical products, as well as a certain general tradition. One such tradition is the expansion of technological devices. For example, in 1950–1960, the capacity of ethylene gas separators increased from 50,000 to 100,000 tons / year, and in 1960–1970, the capacity of such devices increased by 300,000–600,000 tons / year. Since 1970, the capacity of this type of newly built equipment has reached 900 thousand tons / year. However, the method of obtaining ethylene has not changed much - ethylene is obtained by pyrolysis in tube furnaces. The transition from 60,000 tons to 300,000 tons will reduce the cost of ethylene by about 50%. At the same time, the separation of butadiene and isoprene in high-capacity devices has become more profitable.

Their combined content is about 15% in pyrolysis gas (compared to ethylene). Butadiene isolated from pyrolysis gas is about 1.5–2 times cheaper than dehydrogenated n-butane and n-butadiene. Since 1960, global ethylene production has increased from 3 million tons to 100 million tons. More than 40% of ethylene is used to make high- and low-density polyethylene.

There is a need to build processes that turn raw materials into high-quality products. For example, in the production of ethyl alcohol by direct hydration of ethylene, only 4–5% of ethylene is passed through the reactor, in the oxidation of cyclohexane to cyclohexanol and cyclohexanone, 4–5%, ethylene is high. 12–15% is converted into a product in the polymerization of high-density polyethylene. When the reaction is started at a low level, the re-introduction of the raw material that was



not involved in it reduces the profitability of the process. If energy is used for heating or energy purposes, its utilization in petrochemical processes is an important issue. In processes involving heat absorption, especially dehydrogenation, it is advisable to carry it side by side with exothermic processes, such as oxidative dehydration. [1]

It is safe to say that energy needs have become a global problem today. It is true that energy is the main source of development, so today in our country a lot of attention is paid to the production of polymer products from GTL "Gas to liquids", as evidenced by the construction of the Golden Road GTL. Purpose of the plant The plant annually produces more than 1.5 million tons of high-quality synthetic liquid fuel that meets the EURO 5 standard, including 743.5 thousand tons of diesel fuel, 311 tons of jet fuel, more than 431 thousand tons of naphtha. , Produces more than 50,000 tons of liquefied gas.

Gas to liquids (GTL) technology was developed in 1923 by German chemists Fisher and Tropsch and was used in the production of aviation fuel in Germany during World War II. Later, when wet oil began to be widely used, this technology was found to be economically viable. Currently, there is a widespread focus on the production of synthetic liquid fuels.

The introduction of GTL industrial processes into production will allow oil and gas companies (previously economically unprofitable due to the lack of transport infrastructure and the distance of the fields from the consumer) to engage in the production of large gas fields. Liquid fuel is more convenient to transport than gas. In addition, in oil-producing areas, torches burn large amounts of satellite gas, which causes great environmental and economic damage to gas-producing countries. One of the main reasons for the interest in GTL technology is that it makes it possible to transport gas from gas fields by pipeline or river transport when it is difficult to transport it. Another major reason is that increasing greenhouse gas emissions will prevent the deterioration of the world's environment. Synthetic liquid fuels are more environmentally friendly than gaseous petroleum fuels.

THE MAIN MECHANISM OF SYNTHETIC LIQUID HYDROCARBON TECHNOLOGY

There are four main ways to obtain synthetic gas:

- i. The starting material is the gas (raw material) obtained by steam reforming using catalysts.
- ii. Partial oxidation. Oxygen is separated from nitrogen in the separation of creogenic air and is burned at high pressure and temperature along with natural gas. Some

technologies may use air instead of pure oxygen.

- iii. Autothermal reforming. The process is based on partial oxidation, which involves steam reforming.
- iv. A method of reforming natural gas by heating the gas in the presence of steam and oxygen.
- v. In the Fisher-Tropsch synthesis process, three main technologies are used to obtain synthetic oil:
- vi. Suspended catalytic process. In this process, the synthesis gas in the suspension reacts with the catalyst and dissolved paraffin from the reactor.
- vii. Stationary Layered process. In this process, the synthesis gas moves through the tubes. Catalysts are pre-installed in the pipes.
- viii. Fluidized layered process. In this process, the synthesis gas passes through the catalytic layer at high speed at high temperatures.
- ix. The cheapest technologies are BP Amoco, Syntroleum, Exxon and DOE ceramic membrane technologies. Because this technology does not have an air separator. However, small-scale devices have been built using Syntroleum and Exxon technologies, and VR Amoso and Exxon technologies have been used to build industrial plants in the United States.
- x. The most expensive technology is the technology provided by Sasol. But even with these technologies, large enterprises have been built in many countries.

1. Methane is a colorless, odorless gas. Molecular mass 16.04. Insoluble in water, soluble in ethanol, ether, carbon (IV) -chloride and hydrocarbons. Methane is the first representative of the saturated hydrocarbon series and, like other alkanes, undergoes radical substitution reactions (such as halogenation, sulfochlorination, sulfoxidation, nitration). Saturn, Jupiter and its companion Titan form the basis of the atmosphere. Methane is extracted industrially from natural gas or cracked gas by low-temperature distillation. Obtained in the laboratory from acetates, carbides or methyl halides of metals. Methane is used in the manufacture of fuel, synthesis and gas raw materials, hydrogen, acetylene, technical carbon, carbon (IV) chloride, chloroform, freons. It is non-toxic but forms explosive mixtures, which can cause problems in coal mines.

2. Carbon dioxide is a carbon dioxide, an oxygenated compound of SO₂-carbon, a colorless gas with a distinct pungent odor and taste. 00 and density under normal conditions is 1,977g / l, critical temperature is 31.30, critical pressure is 7.3 MPa.



When cooled to -78.50 , it turns into a snow-white solid - "dry ice". Solid SO_2 is also formed when liquid SO_2 evaporates rapidly. At normal pressure, at 78.50 , it converts directly into a gas without liquefying. Solid SO_2 liquefies at a pressure of 5 MPa at -56.70 . Soluble in water, alcohol and ether. In nature, organic matter is formed as a result of oxidative processes such as decay, fermentation and combustion. Fuel combustion also produces SO_2 . SO_2 in the air is 0.03% by volume. SO_2 is a product of metabolism in the body. It is also involved in the process of photosynthesis. In the technique, limestone or nose is burned and the marble is decomposed with hydrochloric acid in the laboratory. SO_2 is widely used in the food industry, in the preparation of "dry ice", in firefighting, in the chemical industry in the production of urea, soda, oxycarboxylic acids, in blasting. When the amount of SO_2 in the air exceeds 1.5-3%, a person develops headaches, dizziness and nausea. If it exceeds 6%, the person loses the ability to work and his life is in danger. The victim should be taken to the open air and given artificial respiration.

3. Hydrogen is a colorless, tasteless, odorless gas. Soluble in water. Oxygen, carbon, and chromium form an explosive mixture. i. -density in air -0.072; ii. -density in the working building -300 mg / m³; iii. -REK traps - 4%; iv. -high- 74%; v. -spontaneous ignition - 510°C ; vi. - boiling point - 252.7°C ; vii. -freezing point - 259.2°C ; viii. -lusting temperature - $259,14^\circ\text{C}$. Vapor inhaled, toxic. Physiologically inert gas, weak (moderate)

concentration leads to headache, insomnia, dizziness, malaise, salivation, vomiting and fainting.

CATALYSTS USED FOR THE PROCESS AND THEIR TYPES

Polymerization in alumomolebden catalyst: This process is carried out at a temperature of $130-260^\circ\text{C}$ and a pressure of about 70 atmospheres. The molybdenum oxide in the catalyst-spreading alumina is MoO_3 , and the molybdenum oxide is 5-8%. Prior to the process, the catalyst is activated in a hydrogen stream at $430-480^\circ\text{C}$, which shows that the high valences of molybdenum are partially reversed, i.e., it is a mixture of oxides similar to chromium oxide catalyst. Sometimes promoters (alkalis and alkaline earth metal hydrides and carbides) are added to the catalyst. In addition to molybdenum oxide, vanadium oxide can also be used. In practice, the technological design of the process is no different from that of the chromium oxide catalyst process. Nickel Catalyst Polymerization: This method of producing polyethylene at medium pressure is carried out at a pressure of 70 atmospheres and at $100-200^\circ\text{C}$. The catalyst of the process is the metallic nickel or cobalt in the activated pistachio charcoal spreader. The amount of nickel in the catalyst increases from 3 to 10%. The catalyst can be activated with alkali metal additives. The catalyst is regenerated with hydrogen at $175-140^\circ\text{C}$ and 140 atmospheres. Considering the three methods of polyethylene production at medium pressure, the properties of the obtained polyethylene can be compared depending on which catalyst is used (Table-1).

Properties of medium pressure polyethylene

Table 1

Polymer properties	Used catalysts		
	$\text{Sr}_2\text{O}_3 \times \text{SrO}_3$, $\text{Al}_2\text{O}_3 \times \text{SiO}_2$	$\text{MoO}_3 - \text{Al}_2\text{O}_3$	Ni / coal
Molecular Weight Density, g / cm ³ Crystalline	10÷30 thousand	30-250 thousand	100-200 thousand
Degree,% Melting point, $^\circ\text{C}$	0,95-0,96	0,95-0,97	0,94-0,95
Number of CN3 groups per 1000 atom of carbon	93	87	80
Breakfast strength limit, kg / cm ²	123-133	128-131	117-120
	1,5	2,	20,0
	285	-	-

These data show that catalysts have a significant effect on the properties of the polymer obtained.

ALTERNATIVE GASOLINE PRODUCTION

There are three industries.

- Gasoline from coal (destructive hydrogenation of coal).
- Gasoline (GTL - Gas Liquid);

iii. Ethanol.

The process of extracting gasoline from coal (destructive hydrogenation of coal) Destructive hydrogenation of coal was discovered in 1913 by German chemists F. Bergius and M. Pierre. It is based on high-temperature treatment of coal with water vapor and follows the following reaction

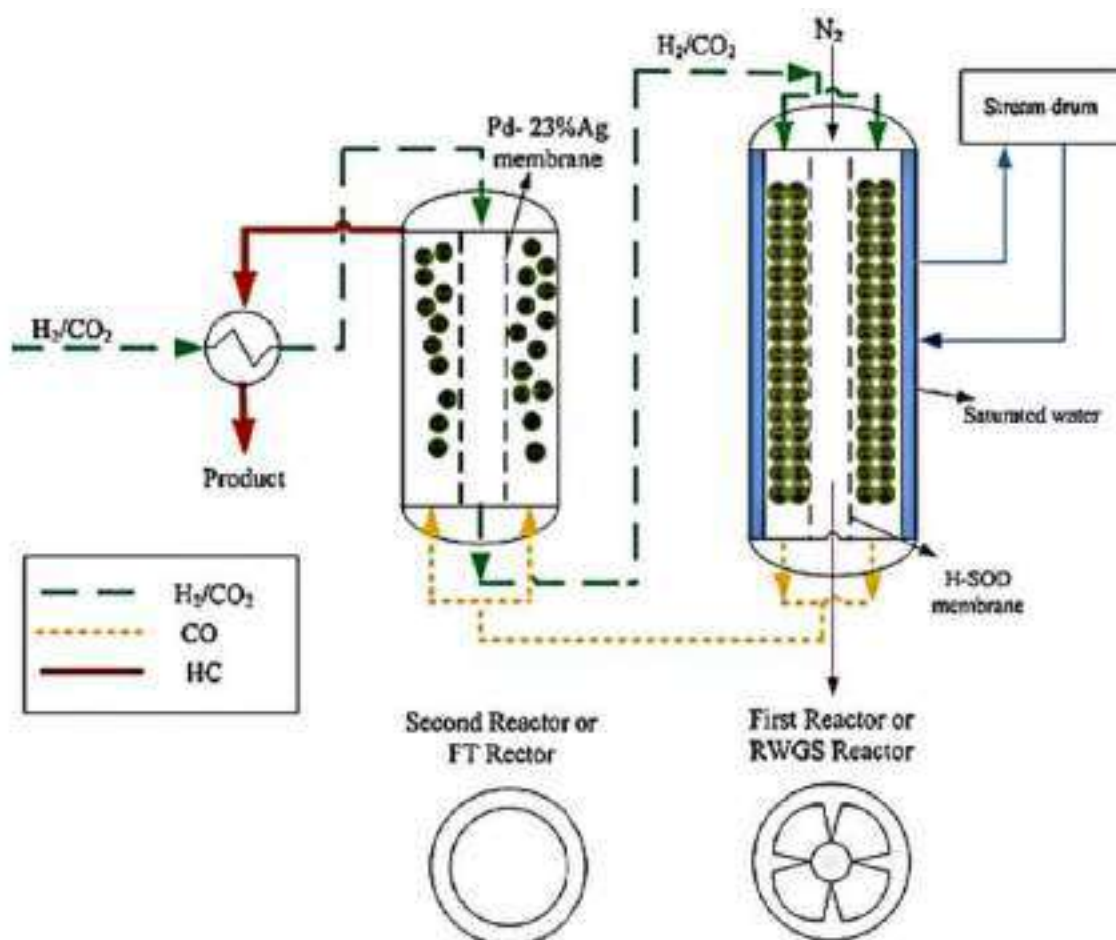
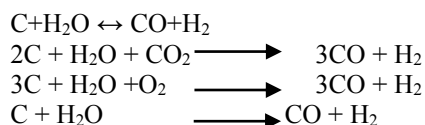


Figure 1. Synthesis gas production reactor



And then the liquid hydrocarbons that make up synthetic gasoline are obtained. This technology allowed to obtain liquid fuel in the presence of hydrogen at a temperature of 450 C and a pressure of 30-70 MPa. In 1926, German chemists F. Fisher and G. Tropsch proposed catalysts that allowed hydrocarbons to be obtained from aqueous gas (aqueous gas is a gas composed of CO and H₂). Based on their research, an industrial process for the production of synthetic fuels was developed in

Germany; and solid hydrocarbons (paraffins) are formed along with gaseous and liquid ones. Cobalt, nickel, and other Group VIII metals precipitated in alumina were used as industrial catalysts. According to Fisher Tropsch, the process of synthesis, such as the destructive hydrogenation of coal, was widespread in Germany during World War II: from 1942 to 1944, the production of synthetic liquid fuels based on lignite and coal was estimated at 5 million tons per year. m.

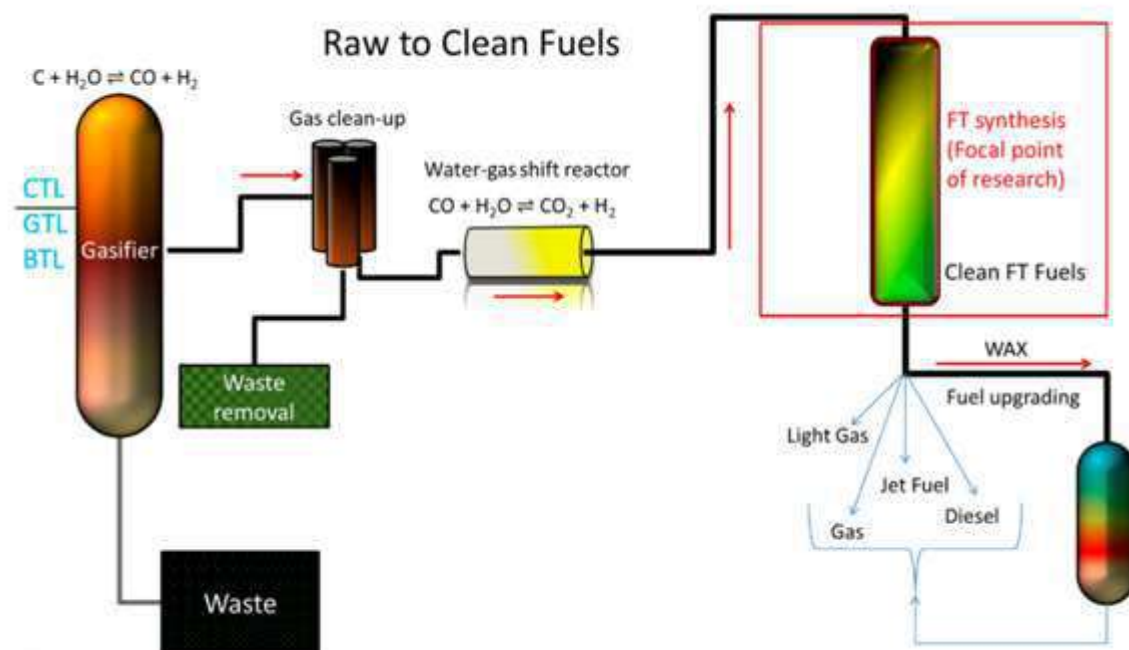


Figure-2. Technological scheme of the Fisher Tropsh synthesis process reactor

The production then went on to operate successfully in the Republic of South Africa (JAR) under conditions where the purchase of oil was prohibited for that country. It should be noted that in Germany, devices for this technology were discontinued in the 80s of the twentieth century, because gasoline from coal was much more expensive than oil. At the beginning of the 21st century, this process was revived by scientists from the VR oil company, but as Veba Sombi Cracker (VSS) as a process of extracting open oil products from heavy oil residues. Coal-based gasoline is not high quality, it has a low octane number. Diesel frets are also available. The resulting products are then hydrocracked. Gasoline Gas Processing (GTL) The process is based on the synthesis of gas to oxidize methane and the conversion of gas to liquid fuel. The use of GTL technology is advisable for the efficient use of gas resources that, for one reason or another, cannot be brought to market. Typically, this process is used in the efficient use of satellite oil gas in large gas fields and oil fields with high gas production. GTL technology requires a large amount of capital on an industrial scale and is very sensitive to changes in oil prices. The first plant with a capacity of 20,000 tons per year was built in 1991 in South Africa. Traditional GTL - products contain, in addition to methanol, acetic acid, olefins, dimethyl ether (can be used as a component of diesel fuel), urea ammonia, mineral fertilizers and synthetic hydrocarbons with different chain lengths. This technology can be used to produce low-boiling alkanes, polyoxymethylenes, naphtha, distillates used as gasoline, kerosene, diesel fuel, surkov oils and paraffin. By changing the

synthesis conditions, aqueous gas-based oxygen-retaining gases, in particular alcohols - methanol and ethanol, are obtained, which can be used as a component of automotive gasoline, although they have certain disadvantages (they can be divided into layers when combined with gasoline, hydroscopy, corrosion activity, high evaporation heat). Currently, in the Middle East (Qatar), this technology has developed industrially (in 2010, Shell's technology converted 1.6 billion m³ of gas per year into gasoline, kerosene, diesel fractions and base oils for direct injection. The hydrocracking stage is required to improve the quality of the product.

Ethanol production Ethanol can be a direct fuel for gasoline engines and can be used as an additive to a gasoline component. G. Ford was one of the first to use ethanol as an engine fuel, inventing the ethanol-powered car (Model T) in 1880. For a long time, ethyl alcohol was not used as a fuel or fuel component due to its high cost and high hygroscopicity and insufficient strength. The widespread use of ethanol as a motor fuel began in many countries in the 1970s, marked by oil crises and sharply increased demands on the environmental properties of motor fuels. Ethanol obtained by hydration of ethylene and non-hydrolysis of food raw materials is called technical ethanol and is used for various technical purposes, including as motor fuel or its component. Phosphate-acid catalysts are used in the production of ethanol by direct hydrotreating of ethylene; The process takes place at a temperature of 260 - 280 C and a pressure of 7-8 MPa. The biggest disadvantage of the process is the low conversion of raw materials (4-5%) in one pass, which leads to the



need for recirculation of large amounts of unchanged raw materials and high corrosion aggressiveness of the catalyst and its removal from the reaction zone. The products of hydrolysis of wood are obtained by hydrolysis of alcohol. The shapes required for sawing are hydrolyzed by sawdust, wood chips and other wood processing wastes. The raw material (cellulose) containing polysaccharides is treated with 5% sulfuric acid at 180 C and 1 to 1.5 MPa, which leads to the formation of glucose, which is then fermented in alcohol. The ethanol obtained by this method is rectified in an aqueous solution. When ethanol is obtained from food raw materials, it is used in cereals, potatoes, sugar cane, corn and other plant products that store starch or hydrocarbons.

The essence of this method is to ferment these products using bacteria that convert hydrocarbons into ethanol. 95% and more "pure" ethanol is used as a motor fuel in small volumes, with various mixtures of ethanol with gasoline containing 5 to 85% alcohol being the most widely used. It uses mainly ethanol from renewable sources of plant raw materials called bioethanol. The production of bioethanol requires more energy from oil than the production of conventional fuel (gasoline). The energy required for planting, care, fertilizer production, harvesting, and processing (fermentation) of grain, sugar cane, or corn is almost equal to the energy produced by bioethanol. At the same time, the cost of producing fuel from oil is about 10-30% of the generated fuel capacity. Ethanol is the most widely used as a motor fuel in Brazil, due to the large potential for the production of ethanol from sugar cane, which is a plant raw material. 2.5 million in Brazil. the car (90% of the car park) runs on motor fuel, which retains more or less ethanol. Ethanol plays an important role in the production of motor fuel in the United States, which is mainly produced from corn. The emergence of E 85 gasoline ethanol fuel (85% ethanol and 15% gasoline) in the market is due to the need to produce a new consistency of cars with a flexible fuel system. The following requirements apply to the vehicle: it must be in the appropriate fuel tank for both non-ethanol-containing gasoline and 100% alcohol-containing, and is subject to automatic adjustment and depending on the fuel content, respectively. fuel: must have a system that maintains the required ratio of air. The rubber hardware used must be resistant to alcohol and gasoline. The main obstacle to the use of ethanol in gasoline in Russia is the high cost of ethanol and its excise.

Gasoline (French-gasoline) is a mixture of variously structured hydrocarbons, a colorless liquid that boils at around 30-2050 C. Freezing point-600 C, ignition temperature below 0C, density 700-780 kg / m³ (0.70-0.78 g / cm³). Explosive compounds are formed when the concentration of gasoline vapors in the air reaches 74-123 g / m³. Gasoline is mainly

obtained by pumping oil and catalytic refining: less gasoline is obtained by refining coal and flammable shales (hydrogenation of destruction), as well as natural and by-products gases. Gasoline is mainly used as a fuel for internal combustion engines. About 10% of gasoline is used as a solvent, detergent and for other purposes.

CONCLUSION

In short, the biggest advantage of synthetic hydrocarbon-based fuels is their effect on the human body. That is, synthetic fuels do not have any negative effects on humans (which, of course, has yet to be proven). The fact is that the hydrocarbons themselves are very diverse, and in the language of chemists, they are linear, banded, cyclic, aromatic. Accordingly, although the types of hydrocarbons belonging to different groups have very similar fuel properties, their other physical properties, such as odor, viscosity, effects on the human body, are absolutely absent. differs. This is a very important aspect. If gasoline from oil gets into a person's stomach, it is clearly poisoned. Synthetic gasoline, on the other hand, is a neutral substance that does not contain any toxins, resins, or aromas, and therefore does not poison humans. This is a very important aspect. What is currently being done in this regard will improve humanity by creating a lighter lifestyle.

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THE ROLE AND SIGNIFICANCE OF USING THE VISUAL-COGNITIVE APPROACH IN HIGHER EDUCATION

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ANNOTATION

This article discusses visual programs and their capabilities aimed at organizing higher education today. Based on innovative foreign experience, it is possible to fully understand the goals and objectives of science by further developing its methodological aspects. The development of visualized methodological support makes it possible to make fundamental aspects of science widely unknown.

KEYWORDS: visual, 3D model, video, Delphi, Flash program, cognitive-visual, content.

Аннотация

В данной статье рассмотрены визуальные программы и их возможности, направленные на организацию высшего образования на сегодняшний день. Опираясь на инновационный зарубежный опыт, можно в полной мере понять цели и задачи науки путем дальнейшего развития ее методических аспектов. Развитие визуализированного методического обеспечения позволяет сделать фундаментальные аспекты науки широко неизвестными.

Ключевые слова: визуально-когнитивный подход, 3D-модель, видео, Delphi, Флэш-программа, когнитивно-визуальный, контент.

INTRODUCTION

Currently, 3D technologies are widely used in almost all technical industries around the world.

Excellent organization of classes in continuing education is the primary task of the teacher. Opportunities for efficient use of available resources lead to a rapid increase in the volume of information and speed up its exchange. In this rapidly developing society, it is difficult to be a skilled, Mature competitive value without mastering the skills of using modern ICT, carefully mastering professional knowledge and skills. In particular, 3D graphics are effectively used in education. 3D

graphics is a section of computer graphics that uses technical tools for managing three-dimensional images and sites in three-dimensional space. You can use it to represent objects as "flat " images using a 3D graphic object, such as a projection or 3D animation. Due to the fact that 3D graphics and technologies are conquering the whole world, it is also used in science, industrial technology and architecture in various spheres of society. It is also widely used in movies and video games. It is very convenient to use in education and gives effective results in mastering topics quickly and visually. In 3D graphics uses a virtual camera when creating



animation in the rendering process. This type of camera has many conveniences in explaining how to view 3D models.

Image and video visualization is actually a virtual photo and video image, so when working with a scene, you use objects like "Camera" (Camera). You can set up any number of cameras on the stage that record different angles.

VISUAL PROGRAMMING

As part of the fifth generation of development of EXM, EXM, much more advanced "man-machine", databases, expert systems, etc. determining the creation of interfaces, the next intellectualization begins to be implemented.

The development of operating systems began in the early 1980s with the appearance of graphical interfaces (Windows, Linux idr.) led to the appearance, they became widespread by the end of the decade.

By its nature, the graphical interface is a component of the system. The purpose of creating it is not to introduce new functionality, but to improve the connection between graphical controls and functions of internal parts of the application. An event handling mechanism was created (which any program knows when it is running or interacting with someone). Program code elements interact and start working when certain events occur. The program code structure is probabilistic. All routes and code routes are not strictly defined. Developing a graphical interface using traditional programming languages takes up to 50% of the time to create an application.

One of the most popular models that appeared in the early 90s of the last century is Rapid Applications Development (RAD), or the rapid application creation model. It is based on major improvements made in four areas, which include:

- i. tools-source code generators, tool (s) layout tools, and fourth-generation programming languages;
- ii. methodology-optimization of the application development cycle;
- iii. recruitment of highly qualified and interested personnel;
- iv. choosing an innovative management strategy.

The introduction of fast visual tools for app developers has increased the speed of creating a graphical application interface. Rapid development of applications is the creation of a layout (prototype) of applications. The application layout consists of components (components) that form a visual programming environment, an object-oriented lineage. Each component of this genome has a set of properties that are determined by its behavior and its own response to events occurring in the operating system. Creating a graphical application interface is similar to the game "constructor".

However, creating an app layout does not mean that the app code will be sufficiently efficient and high-quality. As a rule, rapid application development languages are interpreted (analyzed). This fact can be attributed to two reasons:

- i. In cases when interpretation is used, simplifies the interpreter. In particular, the compiler loses the component of generating machine codes, which has a serious complexity. As a result, the rapid development tool can be applied faster. A work-worthy version of the app will also be received faster.
- ii. The use of machine-dependent intermediate coding technique not only eliminates the problem of transferring (or at least internationalizes) information systems created on its basis, but also eliminates the problem of transferring (or at least interprets) the development tool itself for the new platform.

But in any case, the interpreter remains an interpreter that cannot effectively execute a program like a computer. But in the mid-90's, Borland developed the Delphi visual programming environment, which provides code creation by compilation, which provides code creation by compilation. This is another step in the development of rapid development tools.

Here are some important aspects of visual programming:

1. based on the visual programming environment, which has the following advantages, lies in event programming:
 - a. the user of the program determines the order of its execution;
 - b. when an event-driven program is idle, it uses almost no computer resources, which allows the computer to perform other tasks;
 - c. using events simplifies programming, because instead of constantly checking each input device, it waits for the operating system to report an incident;
 - d. events also allow applications that define their own behavior to work with objects.
2. The operating system passes events to the object, while the object's event handlers determine how it will be processed. The program does not need to know the structure of the object, it only needs to know how to handle the object.
3. Visual programming changes the design scheme of an application: programming begins with viewing the appearance of the application (the application interface), which allows the user and programmer to develop



a view of the work that makes the application the only view. The ability to quickly layout applications related to enterprise-level technologies opens the way to developing projects of any scale, both wavy and predictable.

4. Building the visual programming environment and applications in which it will be developed is based on the principles of object-oriented programming.
5. in Addition, the ideas of modular programming have reached logical accuracy in the languages of the visual programming environment.

CASE-Technology (Computer Aided Software Engineering-software development automation)

The developer begins his work by planning large programs, drawing some diagrams, writing some preliminary specifications, creating some layout that allows you to determine how all the components interact, how to solve the problem. In the 60s, this process was formed using blockchain schemes. With their help, they tried to explain all the stages of program development. Even there were schemes, special workstations for automating the development process. The idea of a complete description and management of development is called software engineering. Software engineering is the science that allows you to build complex software with predictable style and measurement and guaranteed quality. It was an attempt to automate personal work. In the 80s, software development automation systems, or system analysis systems, began to appear, designed for system analysts and designers who were not intended to be used throughout the software lifecycle. These include tools for applying graphical models, designing specifications, and data dictionaries. Experts developed the program by drawing its logical structure, showing on the screen what to do and in what order. After the structure was drawn, you could start creating the program code.

The second stage of development of case tools is characterized by more developed capabilities of tools and a complete approach to the life cycle. First of all, in different third-and fourth-generation languages, it was necessary to specify support for automatic code generation, which could include manual correction and insertion, allowing you to see the product skeleton. Information about graphic requirements, design specifications, project management, analysis, and system information is provided by functional support. It comes with tools for testing, verifying (verifying), generating (generating) programs, and analyzing the production of project documentation.

The attitude is not the same. On the one hand, the fact is that technologies have high reserve

capabilities for increasing labor productivity, improving the quality of software products, and maintaining a uniform and consistent work style. At the same time, existing case tools, using methods of structural and object-oriented analysis and program design, can be attributed to various tools for describing external requirements, relationships between program creators, and work dynamics (for example, diagrams, texts, etc.).

Another point of view is that CASE-Technology evaluates that drawing and diagrams are nothing more than a design package.

LET'S LIST THE MAIN CHARACTERISTICS OF THIS TECHNOLOGY

- i. the methodology of system analysis became the basis of the case technology;
- ii. When developing using CASE systems, the main amount of work was distributed at the initial stages of the software lifecycle, and the creative factor was considered important. Using CASE minimizes the complexity of the coding stage and significantly reduces product testing time.
- iii. Integration of individual founders of CASE tools provides management of the information system development process.
- iv. Using a specially created project meta-data repository (repository) ensures that project versions and individual organizers are saved, and that information received from different vendors is synchronized when working in a group, so that meta-data is not complete and contradictory.

But there are also disadvantages of case tools. One of them is that any automated design system has its own specification, and the system will never reflect the requirements of this user 100% or, if the CASE system is powerful and multifunctional enough, the system will take a long time to master it. History repeats itself. More and more apps are required.

Programmers will need computer-based design tools. Study of the structure of pedagogical activity of V. p. Bepalko, T. E. Bobudko, N. V. Kuzmina, V. A. Slastenin, Yu. G. It is devoted to the scientific research of Tatur and other similar scientists.

N. V. Kuzmina [1] identifies the main functional components of pedagogical activity, which include: Gnostic (depending on obtaining information about all aspects of pedagogical activity); project (the content of which consists of forming and reformulating pedagogical goals and objectives, updating old plans and programs of training and education and drawing up new ones); constructive (in fact, the process of modeling, drawing up a plan for upcoming training, equated to



its preparation); organizational (reflects the actual activity performed for the practical application of the established curriculum or program); communicative (includes procedures that ensure the necessary relationships and connections between various participants in the educational process).

G. A. Kruchinina [2] showed the necessary pedagogical skills in using new information technologies (new information technologies) in the structure of pedagogical activity:

1. Gnostic skills:

- i. selection of the main topic for the content of the textbook in the characteristics of the use of new information technologies;
- ii. formation of goals for the use of new information technologies in the classroom, elective classes;
- iii. identification of the main topic in the content of computer programs, assessment of the need to use the appropriate specific training program;
- iv. assessment of the interest of individual groups of students in working with training programs, depending on the type of tasks, their degree of complexity in one form;
- v. V. analysis of possible ways to use new information technologies, revision of the work based on objective requirements;
- vi. comparison of individual assessment with the assessment of students provided for the use of various types of training programs;
- vii. Ver. assessment of individual readiness for pedagogical activity in the conditions of new information technologies.

2. Constructive skills:

- i. development of summaries of various types of educational and cognitive activities of students with the inclusion in the system of activities of the curriculum "Teacher-student-computer-student";
- ii. taking into account the individual characteristics of the student when reading using a computer, anticipating their difficulties;
- iii. analysis of the content of the entire course, writing scenarios of training programs, a separate topic of the lesson;
- iv. development of problem-cognitive and creative tasks, search work of the student on working with a computer program, educational games, etc.;

3. Organizational skills:

- i. management of educational-cognitive activity of pupils in conditions of the use of new information technologies in the classroom, extracurricular activity, independent training circle on the subject, the context of knowledge;

- ii. the implementation of the organization of individual, group and collective activities on the computer use at different stages of the lesson;
- iii. working with different groups of students and objective evaluation of their activities;
- iv. system monitoring of students' activities both in a computer and in a complex (computer-pedagogical) way.

4. Communication skills.

- i. in the context of using new information technologies, from a pedagogical point of view, establishing purposeful relationships with students, stimulating interest in classes;
- ii. if it is difficult for the reader to complete the task, analyze how clear the tasks, "help" that are given in various types of educational programs are for him;
- iii. assessment of students' interest in working with programs in order to establish a better teacher-computer-student relationship;
- iv. the creation of creative search of the atmosphere;
- v. V. creating a positive attitude to the use of the computer in training sessions;
- vi. to predict the reaction of readers to establish an emotional connection.

5. Project skills.

- i. determine the place of use of computer programs in the context of a particular lesson, the type of program that is most suitable for the tasks;
- ii. The ability to plan the study of the entire topic (lesson system) using new information technologies;
- iii. teaching the results of using new information technologies as a means of teaching and developing students, planning.

Having considered the structure of pedagogical activity and methodological features of teaching oil and gas, T. A. Lavina [3] defined the content of the main organizers of the activity as follows:

The constructive component (organizer) takes into account the skills of planning the educational process using new information technology tools:

- i. determine the pedagogical feasibility of using modern new information technologies (modern new information technologies), taking into account the purpose of training, the content of the material being studied, the age characteristics of students, their knowledge and interests in the learning process;
- ii. taking into account the capabilities of new information technologies;
- iii. analyze the capabilities of modern information technologies in order to



- determine their feasibility in the educational process (description, consolidation, repetition, control of new knowledge in preparation for the lesson).;
- iv. selection of effective methods of using Informatization tools in the educational process;
- v. V. implementation of lesson planning using information technologies;
- vi. use of information and methodological support for the educational process.

IT ASSUMES THE PRESENCE OF SKILLS RELATED TO THE GNOTIC COMPONENT

- i. Study and analysis of the possibilities of new information technology tools;
- ii. evaluation of software for educational purposes (expert evaluation of software for educational purposes) ;
- iii. iii.study and analysis of the activities of individuals and students in the application of new means of Informatization of education.
- iv. The designer assumes that they have skills related to the production of educational software.

THE ORGANIZATIONAL COMPONENT INVOLVES THE AVAILABILITY OF SKILLS FOR THE SYSTEM OF EDUCATIONAL WORK WITH USE OF MODERN INFORMATION TECHNOLOGIES

- i. preparing for the introduction of modern information technologies;
- ii. using the ZAT at different stages of the class;
- iii. to familiarize readers with instructions for work with modern information technologies;
- iv. the exercise of independent activity to work with modern information technologies;
- v. the organization of independent work of students using modern information technologies;
- vi. organization of students ' work in groups and individually with modern new information technologies;
- vii. creating motivation for students to work with ZAT;
- viii. perform a selection of tasks that include performing training activities using modern information technologies.

REQUIRES SKILLS IN THE COMMUNICATION COMPONENT

- a. working in a learning environment organized by the local network of the training and computing complex;
- b. the use of modern information technologies in the context of telecommunications.

T. V distinguish the following types of

Extracurricular activities [4].

"Information-oriented activities. Search and processing of information necessary for the implementation of the set or formulated goals of pedagogical activity from the outside. Understanding the pedagogical problem. Formation (or awareness of what is given from the outside) of the goal of pedagogical activity aimed at solving the problem. Updating, searching, processing (descriptor stage) of information necessary for the implementation of a formulated or set goal. Getting independent education.

Modeling activities. Building information models of the educational process, algorithms of pedagogical activity. Interpretation and decomposition of goals. Transformation of descriptive information into written form: development of curricula, programs, manuals, etc. (prescriptive stage).

Mobilization activities. Formation of cognitive activity of students. Establish purposeful relationships with all DJs involved in the teaching process. Creating the necessary psychological climate, forming students ' satisfaction with educational and cognitive activities. Development and stimulation (implementation stage) of motivation, interest in educational and cognitive activities among students.

Broadcast activities. Broadcast social experience. Assimilation (implementation stage) of social experience transmitted by students.

Control and Evaluation activities. Evaluating the effectiveness of the social experience transfer process. To study the existing capabilities of students, their levels of mental development. Formation of an information base for analytical activities of students and The center for the information base of educational and cognitive activities (implementation stage).

Analytical activity. Theoretical analysis ("retrospective stage") of practical activities in order to adjust it if necessary during the next pedagogical cycle.

In the framework of the constructed model T. V. Dobudko allocated the algorithm structure of the professional activity of teachers of oil and gas:

- i. In the framework of information-oriented activities teachers of oil and gas provides for the development of new algorithms for information-oriented activities, such as the possibility of new means of information



- technology implementation as a tool of cognitive activity, the algorithms independent reading teacher of oil and gas in the framework of remote forms of working and learning in computer networks.
- ii. II. the Specifics of the simulated activity of the oil and gas teacher is based on the need to master algorithms for selecting the broadcast educational content using modern information technologies, algorithms for optimal distribution of broadcast functions and control and evaluation activities in the teacher-computer system, algorithms for modeling activities related to the organization of team-cognitive activities.
 - iii. Changes in the composition of the analytical activity of the oil and gas teacher are related to the algorithms of interpretation (analysis) and primary statistical processing of the results of control and evaluation activities using new information technology tools, algorithms for the use of expert systems implemented in analytical activities based on the pedagogical knowledge base system.
 - iv. The specificity of mobilization, translation, monitoring and evaluation activities of

teachers of oil and gas is characterized by the following set of new algorithms: algorithms mobilization activities implemented in individual work with students in the application of new information technologies, algorithms mobilization activities during the participatory learning activities, modern information technology (training programs, algorithms, providing translational activities using simulation and modeling software environments of expert systems), algorithms that implement feedback in the "teacher-student " system based on modern information technologies, algorithms for pedagogical assessment within the framework of modern information technologies.

In accordance with the constructed model of activity of the oil and gas teacher, a cycle of disciplines aimed at training future teachers in the methodology of teaching oil and gas and new information technologies of training, as well as providing General scientific training in the oil and gas industry (Fig. 1):

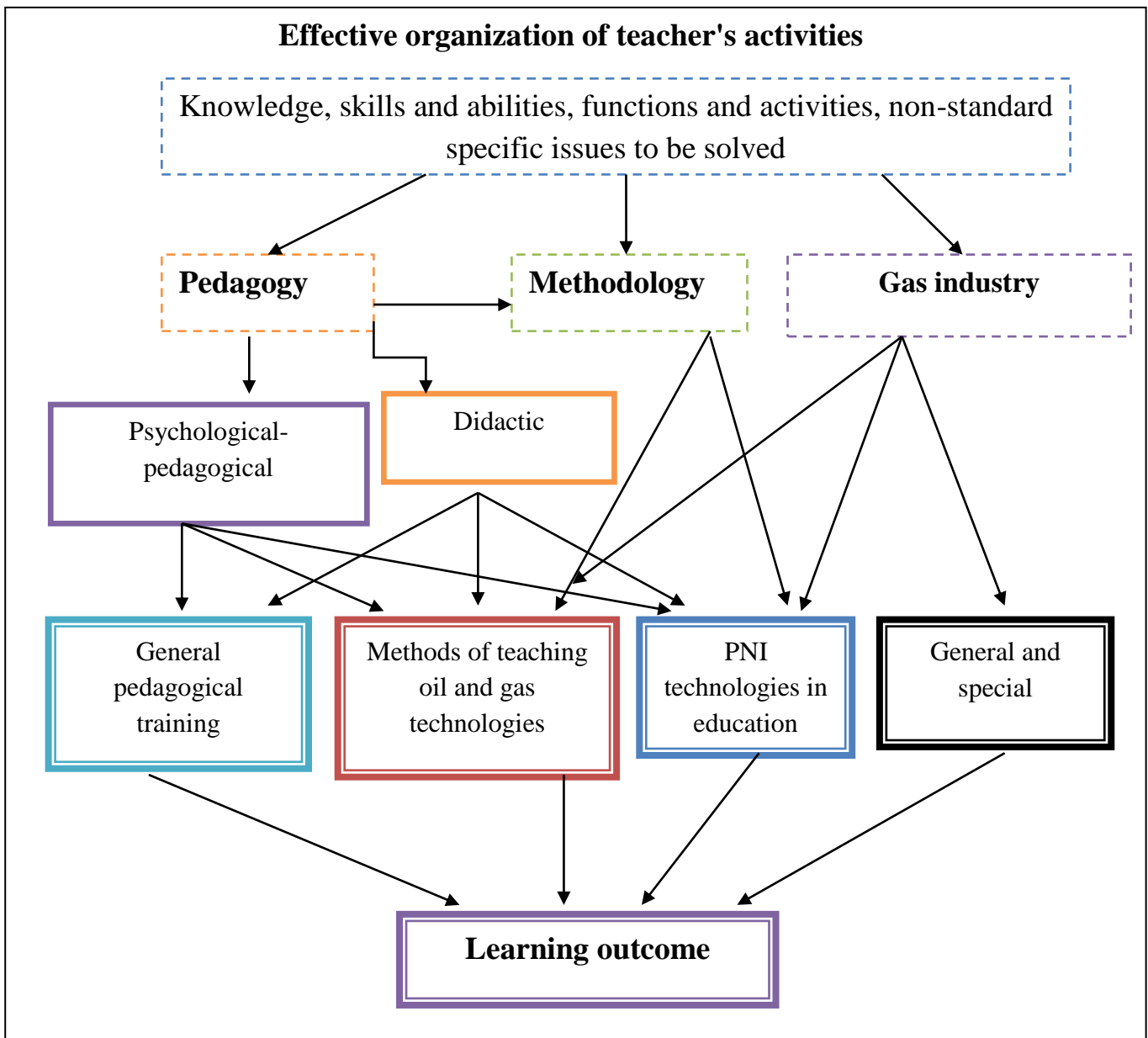


Figure 1. Improving the process of organizing the activities of a teacher of the oil and gas industry

In accordance with this model, a graduate of a pedagogical University is required in the main areas of education: pedagogical, methodological and scientific level of oil and gas, according to which, when preparing a teacher of oil and gas, a block of pedagogical Sciences, a block of methodological disciplines and a block of subject disciplines are allocated.

Depending on the tradition of continuous growth of knowledge, the school needs a teacher with fundamental knowledge in the field of information.

CONCLUSION

The oil and gas teacher must be prepared to perform all the tasks that may be assigned to him at school. To do this, the student must not only know the scope of the oil and gas school course, but also have a certain amount of knowledge in various areas of oil and gas development (Programming, databases, algorithm theory, computer networks).

At the same time, mastering programming technologies will allow the future teacher of oil and gas science to form a complete picture of the history of programming development, show the principles laid down in software at the programming level, develop skills in developing high-quality software



products, and prepare for specialized programming courses.

Currently, programming skills in the visual programming environment are becoming promising in the professional activity of an oil and gas teacher.

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CONTAMINATION OF HEAVY METALS IN SOIL OF MANDIDEEP INDUSTRIAL AREA, MADHYA PRADESH, INDIA

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1. ABSTRACT

A study has been conducted to assess the heavy metal contamination in soil of Mandideep industrial area of Madhya Pradesh, India. Total twelve locations and one control location were selected in Mandideep industrial area for soil quality monitoring w.r.t. heavy metals. The thirteen soil samples were monitored for heavy metals such as Chromium (Cr), Manganese (Mn), Nickel (Ni), Copper (Cu), Zinc (Zn), Iron (Fe), Cadmium (Cd), Lead (Pb) and Cobalt (Co) analysis during different four quarters from April 2018 to March 2019. The present study is an attempt to visualize the heavy metal contamination with w.r.t. Contamination Index (CI), Pollution Load Index (PLI) study at selected locations in Mandideep industrial area. Over all Pollution Load Index of soil was found greater than one which shows polluted soil w.r.t. heavy metals at all selected monitoring locations in Mandideep industrial area of Madhya Pradesh, India during this study.

KEYWORDS: Industrial Area, Soil, Heavy Metals, Contamination Index (CI), Pollution Load Index (PLI)



2. INTRODUCTION

Heavy metals are accumulated in soils mainly due to dry and wet atmospheric deposition from various sources; the main and most important origin of heavy metals is related to industrial emissions (chemistry, mining, iron and steel industry, metallurgy, building and electronics industry, etc.), fuel combustion, and waste management and transport (automobile traffic, a fuel composition, road types etc [1]. Heavy metals can be transferred into the human body as a consequence of dermal contact, inhalation, and ingestion [2-4]. Industrialization has been accompanied by increased concentrations of metals and semimetals in soils. Some, such as lead and cadmium, are non-essential, being potentially toxic even in very low concentrations; essential ones, such as copper, nickel, zinc, and manganese, are fundamental for many metabolic activities, but become toxic for concentrations above a certain threshold [5]. Due to rapid industrialization, excessive application of metals and synthetic chemicals in the terrestrial environment coupled with deficient environmental management has led to large scale pollution in the environment. Soils contaminated by heavy metals from human activities have raised serious concern in recent decades regarding potential risk to human health through the direct intake, bioaccumulation through food chain, and their impacts on ecological system [6,7]. Furthermore, exposure to the high amount of heavy metals can cause serious problems to human [8]. Heavy metals can be derived from both local and distant sources of emissions, and therefore can be deposited in situ or, due to their ability

to be bound by dust, can be transported over long distances [9-11]. Most anthropogenic pollutants are emitted into the atmosphere and then are deposited on the soil surface [12]. Accumulation of metals may also be supported by natural processes. Vehicular pollution is also participates in heavy metal pollution of soil ecosystem. In addition to this, soil is also considered as the major sink for airborne metals. All aspects stated above become responsible for accumulation of heavy metals in the soil by one or way and thus give rise to soil pollution [13]. Therefore pollution load index w.r.t. heavy metals in soil of Mandideep industrial area was observed in this study.

3. METHODOLOGY

3.1. Study Area

Mandideep is a municipality in Goharganj subdistrict of Raigarh district in the Indian state of Madhya Pradesh. It is situated between the latitude 22° 47' and 23° 33' north and the longitude 77°21' and 78°49' east and is bounded in the west by Sehore District, in the north by Vidisha District, in the east and southeast by Sagar District, and in the south by Hoshangabad and Sehore districts.

3.2. Monitoring Locations

Total twelve locations and one control location in Mandideep industrial area were selected for soil monitoring w.r.t. heavy metals is depicted in table no 1 and figure no 1.

Table 1: Monitoring Locations at Mandideep Industrial Area

S.N	Code	Monitoring Points
1	S1	Near M/S Bansal Extraction & Exports Pvt, Ltd Mandideep
2	S2	Near M/S Bhaskar Industry, Mandideep
3	S3	Near M/S Proctor & Gamble, Mandideep
4	S4	Near M/S Mahindra Steel Service Centre, Mandideep
5	S5	Near M/S Dawat Food Industry, Mandideep
6	S6	Near M/S TMTL (Eicher Tectors), Mandideep
7	S7	Near M/S HEG, Mandideep
8	S8	Near M/S Lupin Ltd, Mandideep
9	S9	Near M/S Vardhman Yarns, Mandideep
10	S10	Near Lalit Gitanjali Hospital, Mandideep
11	S11	Near AKVN, Mandideep
12	S12	Near M/S Crompton & Greaves, Mandideep
13	CS (Control Site)	Near St Chavara, H. S. School, New Satlapur Mandideep

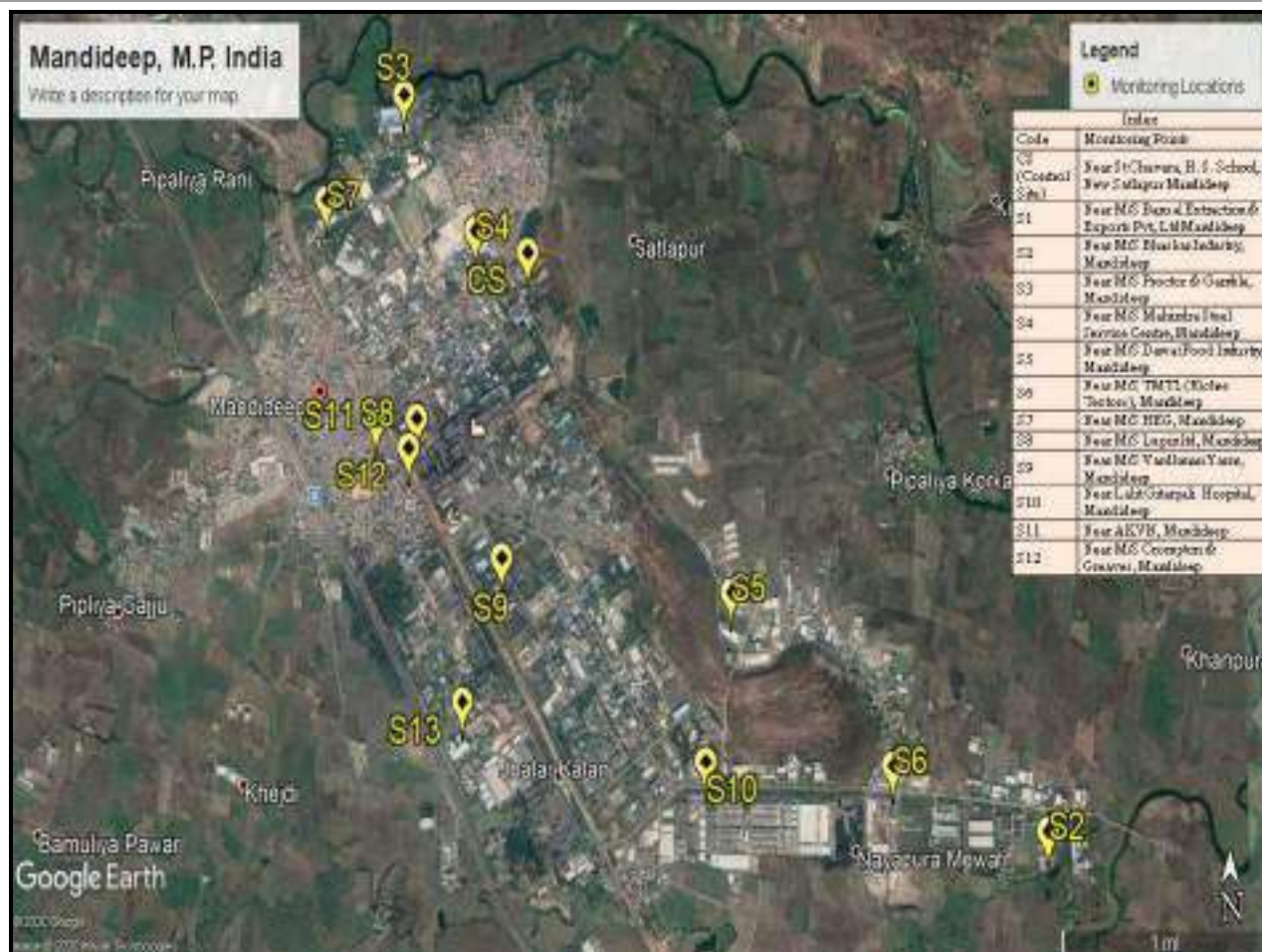


Figure 1: Monitoring Locations at Mandideep Industrial Area

3.3. Monitoring

All soil monitoring was done as per standard guidelines followed by Central Pollution Control Board. The aliquots of soil mixed together (unwanted matters to be separated manually before mixing of samples) during collection from the each selected sampling area. Out of this mixture, approx. 500 gm sample to be taken into polypropylene zip pouch, duly coded, labeled at field as per guidelines of Central Pollution Control Board. Soil samples were collected from the 05–15 cm depth, after removing surface contamination. Sampling was carried out using a plastic spatula and the use of metal tools was avoided. The samples were collected in self-locking polythene bags and were sealed in double bags.

3.4. Digestion and Analysis

Soil samples were dried for two days at room temperature. The dry soil sample was disaggregated with mortar and pestle. The sample was finely powdered to –250 mesh size (US Standard) using a swing grinding mill. All soil samples were digested by

EPA Method 3050B (Acid Digestion of Sediments, Sludges And Soils) [14] and analyzed by atomic absorption spectrophotometer (Perkin Elmer Pinnacle 900H).

3.5. Soil Pollution Indices

Pollution assessment models are indicators used to assess the presence and intensity of anthropogenic contaminant deposition on soils. In this study, the following pollution assessment models were employed: Contamination Index (CI), Pollution Load Index (PLI) w.r.t heavy metals concentration present in soil.

3.5.1. Contamination Index (CI)

The contamination factors were derived by using the CI equation as defined [15]:

$$CF = C_n / B_n \dots \dots \dots (1)$$

Where C_n = measured metal concentration and B_n = background concentration from control site. The concentration factor observe as; $CF < 1$ low; $1 < CF <$



3 moderate; $3 < CF < 6$ considerable, and $CF > 6$ as high contamination [16].

3.5.2. Pollution Load Index (PLI): The PLI gives a generalized assessment on the level of soil contamination. The PLI is obtained using approach as follows [17]:

$$PLI = [CF_1 \times CF_2 \times CF_3 \times \dots \times C_n]^{1/n} \quad (2)$$

Where, CF= contamination factor; and n = number of metals. $PLI > 1$ indicates pollution exists; $PLI < 1$

indicates no metal pollution [18]; and $PLI = 1$ indicates heavy metal loads close to the background level [19].

4. RESULT & DISCUSSIONS

The observed concentration of heavy metals in soil is depicted in Table 2. Contamination index (CI) and Pollution load index (PLI) w.r.t. heavy metals in soil of all selected locations are presented in Table 3. All results are shown in figure no. 2 to figure no 11.

Table 2: Metals Concentration in Soil

S.N.	Heavy Metals	Unit	CS	S1	S2	S3	S4	S5	S6
1	Cr	mg/kg	17	29	22	21	22	25	20
2	Mn	mg/kg	195	346	249	245	210	316	231
3	Ni	mg/kg	22	27	23	30	25	26	27
4	Cu	mg/kg	28	37	266	65	68	58	38
5	Zn	mg/kg	56	93	76	75	67	78	72
6	Co	mg/kg	16	29	23	24	28	27	26
7	Cd	mg/kg	2	3	2	2	3	3	2
8	Fe	mg/kg	2077	11867	7235	11260	9928	10340	7154
9	Pb	mg/kg	11	18	15	18	20	12	15

S.N.	Heavy Metals	Unit	S7	S8	S9	S10	S11	S12
1	Cr	mg/kg	18	24	27	26	19	18
2	Mn	mg/kg	209	269	230	219	361	312
3	Ni	mg/kg	25	28	26	28	33	23
4	Cu	mg/kg	32	56	63	63	32	31
5	Zn	mg/kg	63	50	62	59	57	76
6	Co	mg/kg	27	26	26	24	24	23
7	Cd	mg/kg	2	3	2	2	3	8
8	Fe	mg/kg	11885	7549	10429	11901	9450	4994
9	Pb	mg/kg	13	23	13	16	26	11

Table 3: Contamination index (CI) and Pollution load index (PLI) of Soil

Heavy Metal	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
Cr	1.7	1.294	1.235	1.294	1.47	1.176	1.058	1.411	1.588	1.529	1.117	1.058
Mn	1.774	1.276	1.256	1.076	1.62	1.184	1.071	1.379	1.179	1.123	1.851	1.6
Ni	1.227	1.045	1.363	1.136	1.181	1.227	1.136	1.272	1.181	1.272	1.5	1.045
Cu	1.321	9.5	2.321	2.428	2.071	1.357	1.142	2	2.25	2.25	1.142	1.107
Zn	1.66	1.357	1.339	1.196	1.392	1.28	1.125	0.892	1.10	1.053	1.017	1.357
Co	1.812	1.437	1.5	1.75	1.687	1.625	1.687	1.625	1.625	1.5	1.5	1.437
Cd	1.5	1	1	1.5	1.5	1	1	1.5	1	1	1.5	4
Fe	5.713	3.483	5.421	4.779	4.978	3.444	5.722	3.634	5.021	5.729	4.549	2.404
Pb	1.636	1.363	1.636	1.818	1.09	1.363	1.181	2.09	1.181	1.454	2.363	1
PLI	1.807	1.747	1.64	1.676	1.672	1.414	1.385	1.631	1.554	1.589	1.642	1.492

Figure no 2 is showing that average concentration of Chromium (Cr) was found 17 mg/kg at control site (CS). Minimum average concentration was found 18

(S7 & S12) mg/kg and maximum average concentration was found 29 (S1) mg/kg during this study.

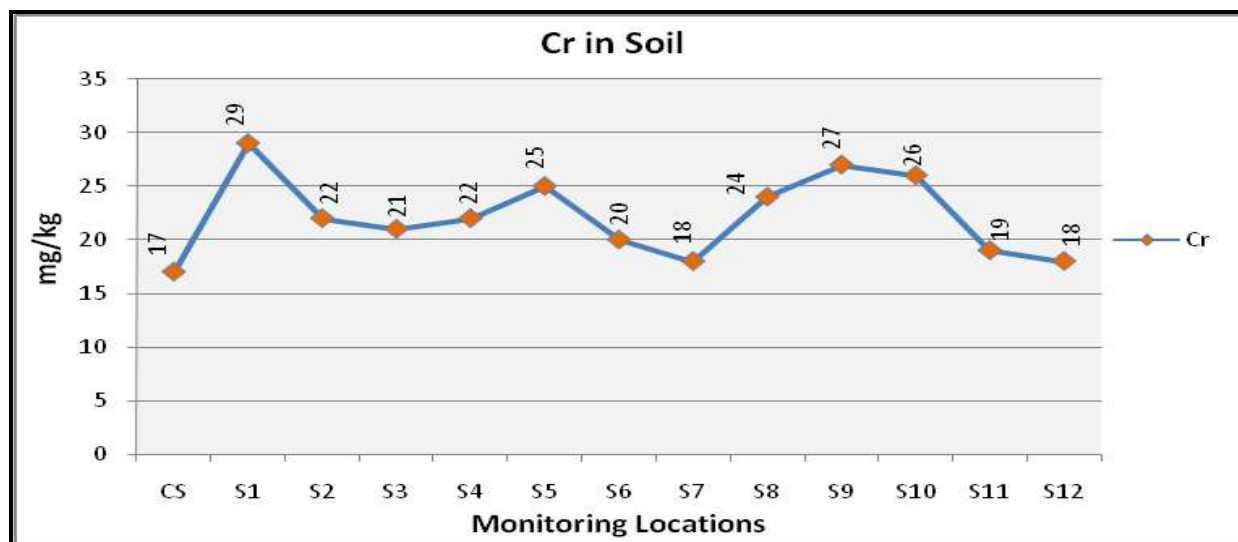


Figure 2: Chromium (Cr) concentration in Soil

Figure no 3 is showing that average concentration of Manganese (Mn) was found 195 mg/kg at control site (CS). Minimum average concentration was found 209

(S7) mg/kg and maximum average concentration was found 361 (S11) mg/kg during this study.

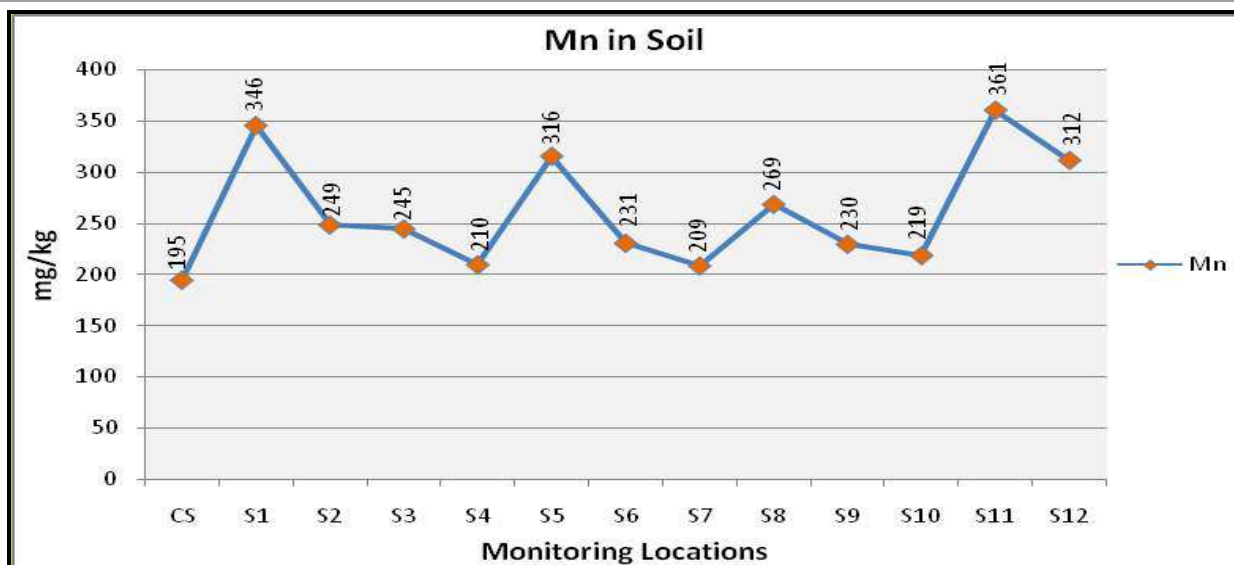


Figure 3: Manganese (Mn) concentration in Soil

Figure no 4 is showing that average concentration of Nickel (Ni) was found 22 mg/kg at control site (CS). Minimum average concentration was found 23 (S2 &

S12) mg/kg and maximum average concentration was found 33 (S11) mg/kg during this study.

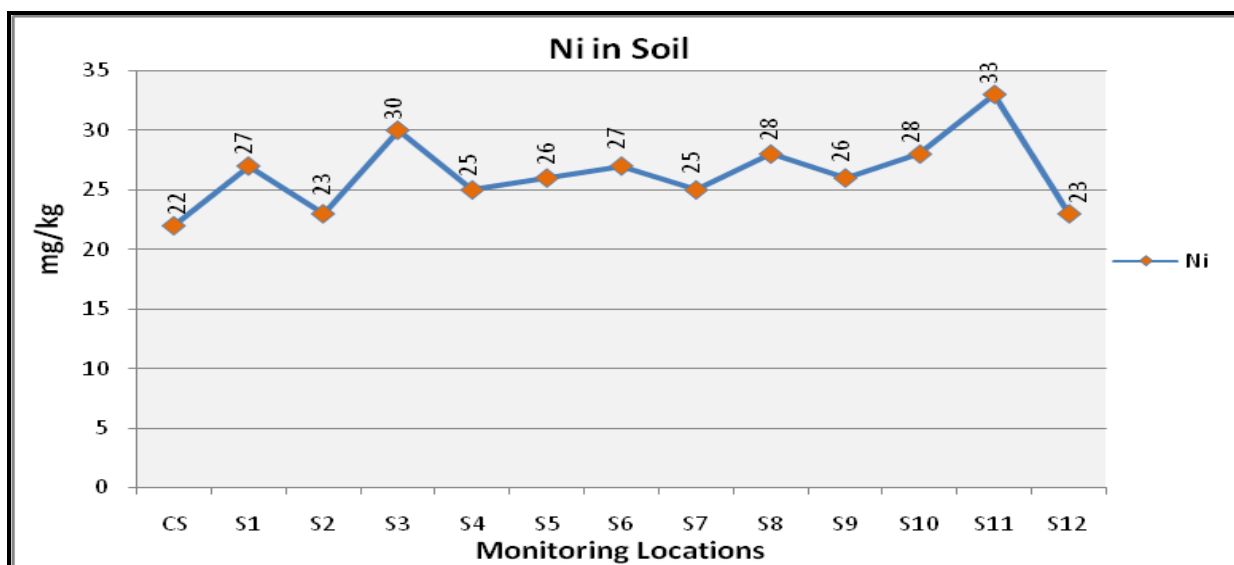


Figure 4: Nickel (Ni) concentration in Soil

Figure no 5 is showing that average concentration of copper (Cu) was found 28 mg/kg at control site (CS). Minimum average concentration was found 31 (S12)

mg/kg and maximum average concentration was found 266 (S2) mg/kg during this study.

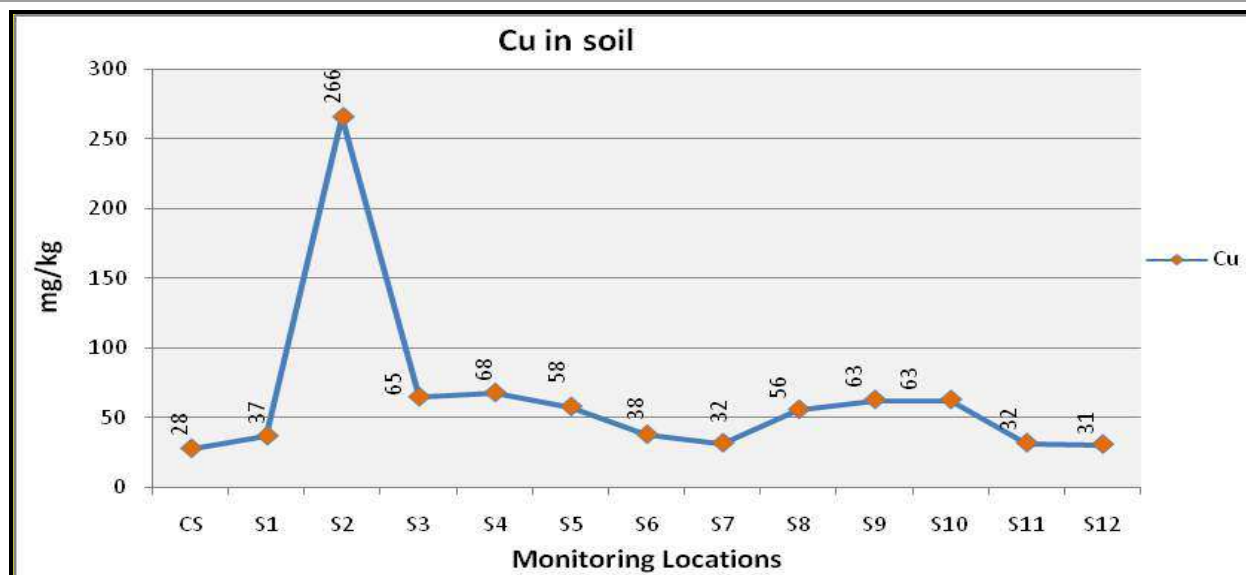


Figure 5: Copper (Cu) concentration in Soil

Figure no 6 is showing that average concentration of zinc (Zn) was found 56 mg/kg at control site (CS). mg/kg and maximum average concentration was found 93 (S1) mg/kg during this study. Minimum average concentration was found 50 (S8)

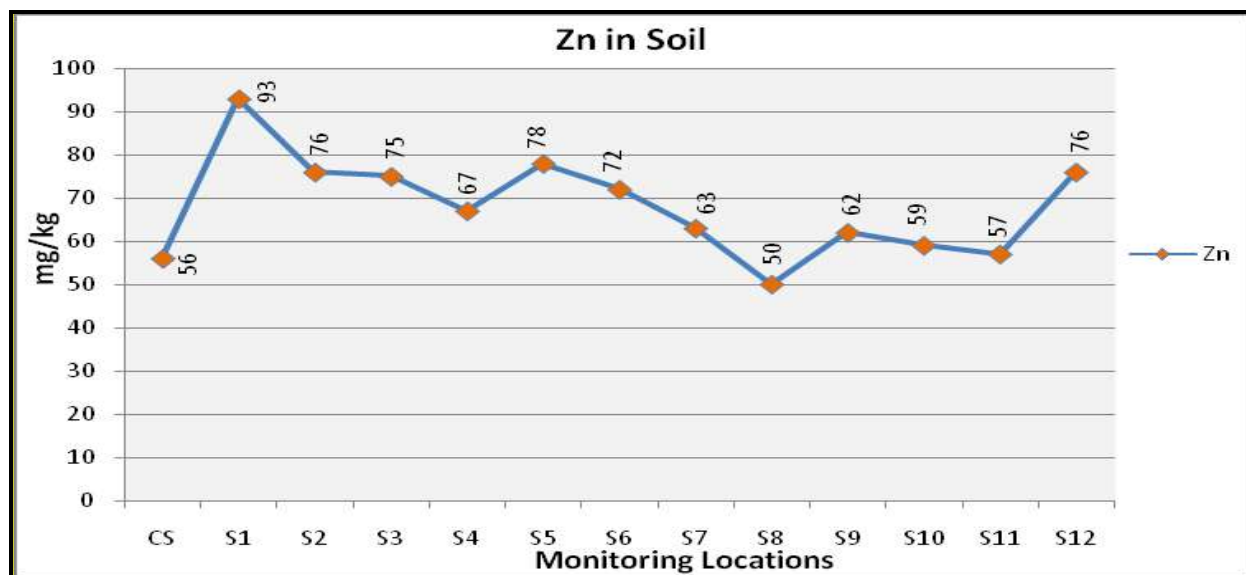


Figure 6: Zinc (Zn) concentration in Soil

Figure no 7 is showing that average concentration of Cobalt (Co) was found 16 mg/kg at control site (CS). S12) mg/kg and maximum average concentration was found 29 (S1) mg/kg during this study. Minimum average concentration was found 23 (S2 &

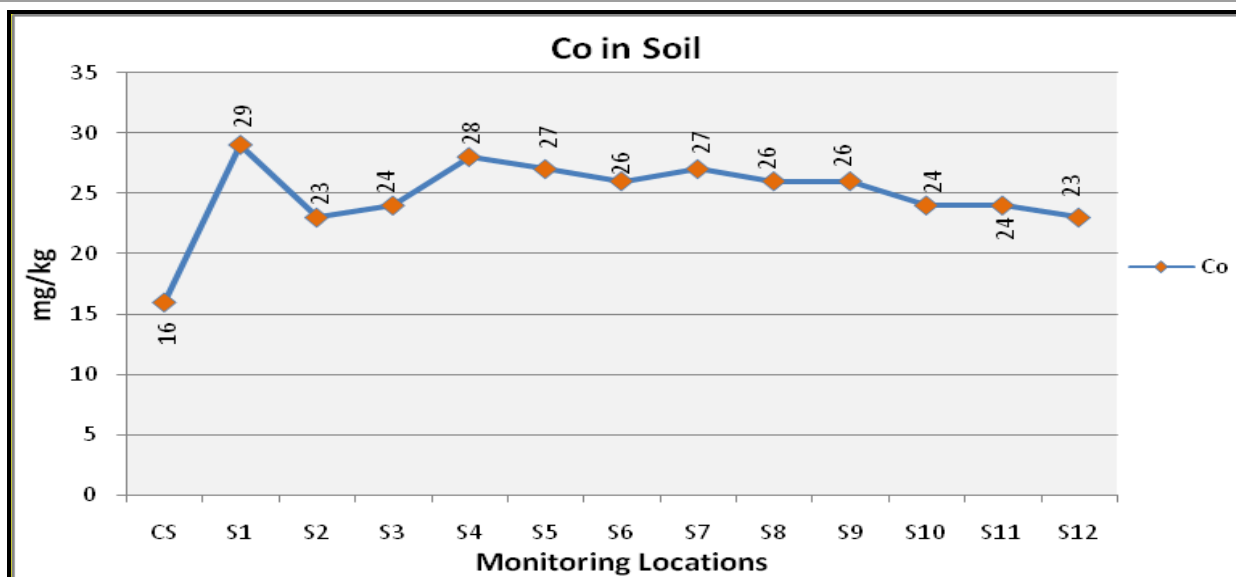


Figure 7: Cobalt (Co) concentration in Soil

Figure no 8 is showing that average concentration of cadmium (Cd) was found 2 mg/kg at control site (CS). Minimum average concentration was found 2 (S2, S3,

S6, S7, S9 & S10) mg/kg and maximum average concentration was found 8 (S12) mg/kg during this study.

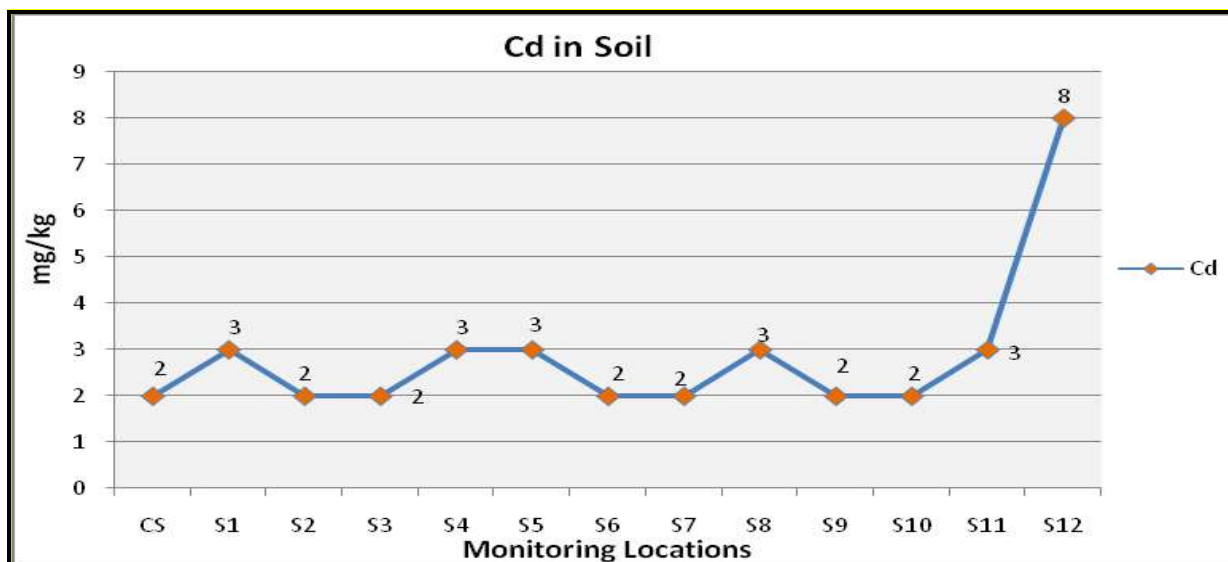


Figure 8: Cadmium (Cd) concentration in Soil

Figure no 9 is showing that average concentration of iron (Fe) was found 2077 mg/kg (CS) at control site. Minimum average concentration was found 4994 (S12)

mg/kg and maximum average concentration was found 11867 (S1) mg/kg during this study.

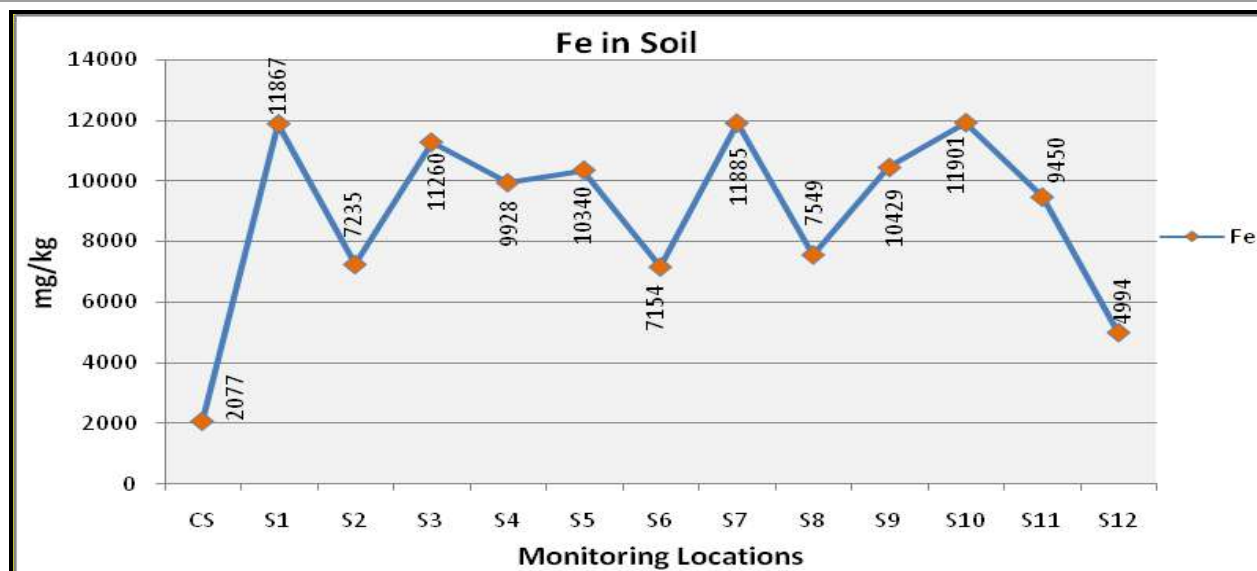


Figure 9: Iron (Fe) concentration in Soil

Figure no 10 is showing that average concentration of lead (Pb) was found 11 mg/kg at control site (CS). mg/kg and maximum average concentration was found 26 (S11) mg/kg during this study. Minimum average concentration was found 11 (S12)

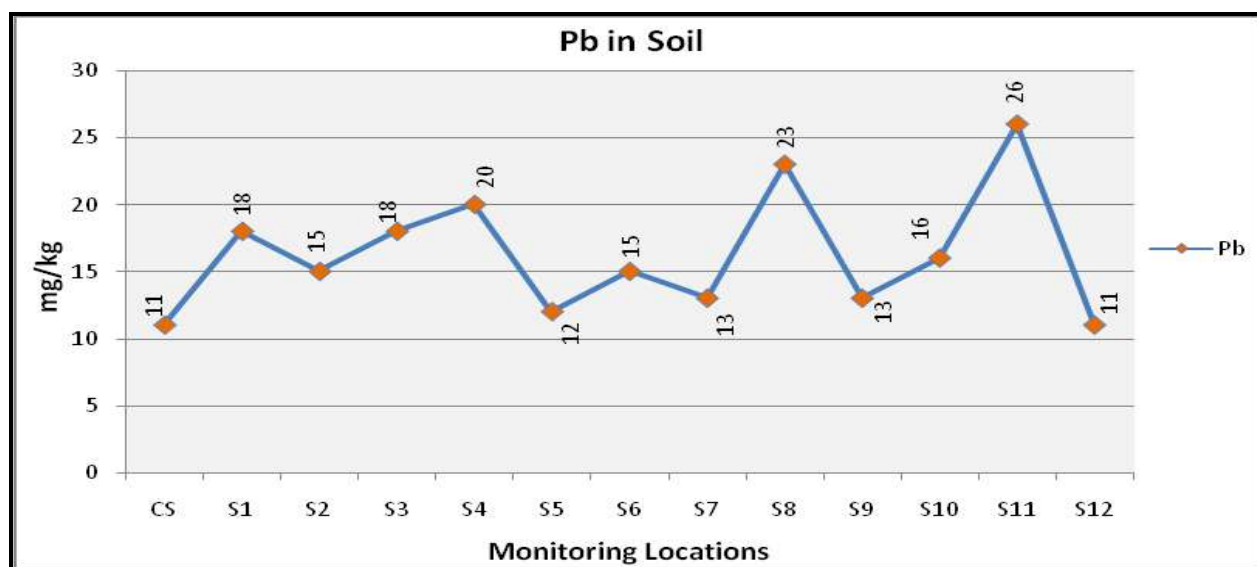


Figure 10: Lead (Pb) concentration in Soil

Figure no 11 is showing that minimum Pollution Load Index was found 1.385 (S7) and maximum Pollution Load Index was found 1.807 (S1). Over all Pollution Load Index was found greater than 1 which show polluted soil w.r.t. heavy metals under study at all selected monitoring locations during this study.

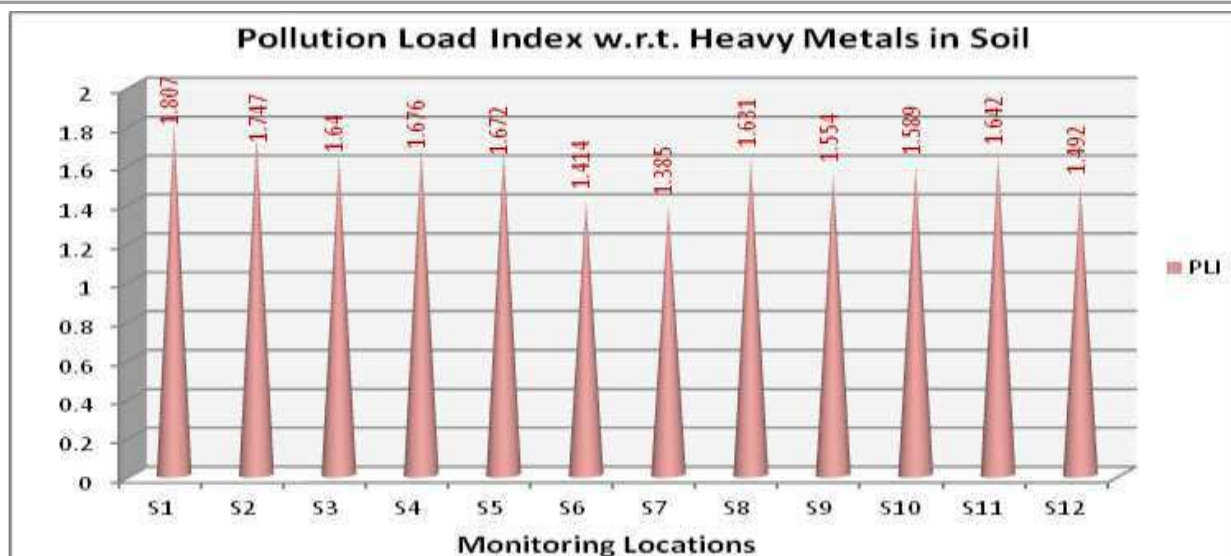


Figure 11: Pollution Load Index w.r.t. Heavy Metals in Soil

5. CONCLUSION

Mandideep is fast developing industrial area near Bhopal, the capital of Madhya Pradesh. The present study is an attempt to visualize the heavy metal contamination with w.r.t. Contamination Index (CI), Pollution Load Index (PLI) study at selected locations in Mandideep industrial area. Over all Pollution Load Index of soil was found greater than 1 which shows polluted soil w.r.t. heavy metals under study at all selected monitoring locations in Mandideep industrial area of Madhya Pradesh, India during this study.

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SOCIAL STRUCTURE AND FAMILY PROBLEMS OF NEUROTIC PATIENTS

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INTRODUCTION

The term neurosis refers to general types of disorder in which the individual suffers from severe anxiety but tries to function in the real world. It is a mild type of mental illness wherein patients show either excessive or prolonged emotional reaction to any given stress. They have symptoms like; anxiety, fear sadness, vague aches and pains and other bodily symptoms. They are aware of their problems and seek help. These patients lose the ability to interact with other and fail to carry out normal functions. In some mild types of neurosis, though the patient is in touch with reality, his mental functions are disturbed causing discomfort to him. The important thing is that the pattern of behaviour of this kind of disorder not fit the facts as other persons see them and is usually aware of their behaviour which is some what inappropriate and has some understanding of the reasons behind it. The neurotic disorder does not carry responsibilities in society and may be full of hostilities. Rosenhan (1973) has also observed that the various forms of disorders are vague and obstruct, and these types of disorders have always little relationship between the behaviour and function.

The incidence of neurotic disorders varies in population, society and different strata of the same society. The several investigation as well as studies conducted by Dube (1970), Sethi et al. (1972) in hospital settings, found the importance of socio-economic, demographic and cultural factors in the development of various mental disorders. Study by Schwab et al. (1970) in the development of various mental disorders. Schwab and Schwab (1975) have also found that socio- cultural condition which markedly led to an increase in the stressfulness of living trends and played havoc with the human organism and led to the increased incidence of stress and neurotic disorders. Other studies, particularly those showing status controls, have been conducted by Ruesch (1946), Ruesch et al. (1948), Lipset and Bendix (1963) and Lensik (1967). They observed that upward mobility also increased neurotic disorder.

These factors developed due to the recent changes in the society, industrialization, and urbanization and emerging social and family problems.

TYPES OF PSYCHOLOGICAL DISORDERS

- **Psychological Disorder**
 - **Atypical behavior:** not enough in itself
 - **Disturbing:** varied with time and culture
 - **Maladaptive:** harmful to oneself or others
 - **Justifiable:** sometimes there's a good reason

HISTORICAL PERSPECTIVE

- Perceived Causes (in the past): movements of sun or moon; evil spirits
- Ancient Treatments: exorcism, caged like animals, beaten, burned, castrated, mutilated, blood replaced with animal blood

PSYCHOLOGICAL DISORDERS

- **Medical Model**
 - Concept that diseases have physical causes
 - Can be diagnosed, treated, and in many cases, cured
 - Assumes that "mental" illnesses can be diagnosed on the basis of their symptoms and cured through therapy in a psychiatric hospital
- **Bio-psycho-social Perspective:** Assumes that biological, socio-cultural, and psychological factors combine and interact to produce psychological disorders.



ETIOLOGY: DSM - IV

- American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorder*
- Widely used system for classifying psychological disorders
- **Neurotic disorder:** distressing but allows one to think rationally and function socially.
- Freud saw the neurotic disorders as ways of dealing with anxiety.
- **Psychotic disorder:** person loses contact with reality
- Experiences irrational ideas and distorted perceptions

ANXIETY DISORDERS

- **Anxiety disorders:** distressing, persistent anxiety or maladaptive behaviors that increase anxiety
- **Generalized Anxiety Disorder:** client tense, apprehensive, and in a state of autonomic nervous system arousal
- **Phobia:** persistent, irrational fear of a specific object or situation
- **Obsessive-Compulsive Disorder:** characterized by unwanted (repetitive thoughts obsessions)
- **Actions = (compulsions)**
- **Panic disorder:** Marked by a minutes-long episode of intense dread in which a person experiences terror and accompanying chest pain, choking, sweating, hyperventilation or other frightening sensations.

DISSOCIATIVE DISORDERS

- **Dissociative Disorders:** conscious awareness becomes separated (dissociated) from previous memories, thoughts, and feelings
- **Dissociative Amnesia:** selective memory loss often brought on by extreme stress.
- **Dissociative Fugue:** flight from one's home and identity accompanies amnesia
- **Dissociative Identity Disorder:** rare dissociative disorder in which a person exhibits two or more distinct and alternating personalities; also known as multiple personality disorder

MOOD DISORDERS

- **Mood Disorders:** Characterized by emotional extremes
- **Major Depressive Disorder:** Mood disorder in which a person, for no apparent reason, experiences two or more weeks of depressed moods, feelings of worthlessness, and diminished interest or pleasure in most activities

- **Mania:** Mood disorder marked by a hyperactive, wildly optimistic state
- **Bipolar Disorder:** Mood disorder in which the person alternated between the hopelessness and lethargy of depression and the overexcited state of mania; formerly called manic-depressive disorder

SCHIZOPHRENIA

- **Schizophrenia:** literal translation "split mind"
 - group of severe psychotic disorders characterized by:
 - **Disorganized and delusional thinking.**
 - **Disturbed perceptions**
 - **Inappropriate emotions and actions**
- **Delusions:** false beliefs, often of persecution or grandeur, that may accompany psychotic disorders
- **Hallucinations:** false sensory experiences such as seeing something without any external visual stimulus
- **Types of Schizophrenia**
- ✓ **Paranoid:** preoccupation with delusions, or hallucinations
 - ✓ **Disorganized:** disorganized speech or behavior, or flat or inappropriate emotion.
 - ✓ **Catatonic:** Immobility (or excessive, purposeless movement), extreme negativism, and/or parrot-like speech (repeating of another's speech or movements)
 - ✓ **Undifferentiated or Residual Schizophrenia:** Symptoms not fitting one of the above

PERSONALITY DISORDERS

- **Personality Disorders:** disorders characterized by inflexible and enduring behavior patterns that impair social functioning (usually without anxiety, depression, or delusions).
- **Antisocial Personality Disorder:** disorder in which the person (usually male) exhibits a lack of conscience for wrongdoing, even toward friends and family members; may be aggressive and ruthless or a clever con artist

A number of neurotic often come to psychiatric Centre for their treatment. It has been experienced that often these people and need the supportive counselling to their family along with psychiatric treatment regarding control of neurotic behaviour. The sick society of conflict family model suggested that fundamental reforms in the family relationship are necessary. It was, therefore, planned



to find out sort of problems faced by such patients in the family relationship.

Method

The present study was conducted on the basis of one year population (From 1st January to 31st December) of neurotic disorders viz., anxiety, depression, hysteria, phobia and obsession, who were attending Psychiatric Centre, Lucknow for the treatment, diagnosed as per International Classification of Disease ICD (10) The total number of cases registered at the Centre was 871. Of these, 91 cases drawn from cases of out – door- patient department (OPD) which were 10.4% of the total population. The information was gathered through the interview schedule on the basis of random sample method.

The number of male and female in our sample selected from different sub-type of neurotic cases have been organized into three areas:

1. Social structure of the patients
2. Presenting complaints when they approach the OPD.
3. Nature of family problems identified during the treatment process.

Results

It is evident that neurotic problems are affecting females of above 20 years age- group. A large numbers of them are married and are living in the urban area. Hindu were in majority with 89 percent of the total population. A large number (49.5%) were primary educated. As far as the wives and no income group was found in the sample. Streets factors in more than two third of the sample group have been found.

The second aspect of data, namely presenting complaints of the sample when they approach OPD for help reveals that a majority (30%) complained of sleep disturbance. It can be observed the problem of the sample more than one-third conflict of various degrees with spouse. More than one-fourth of the sample had inter-personal conflict with parental family of spouse (in-laws), one-fifth had conflict with either person with his/her sibling (in-laws), one-fifth had conflict with either person with his/her sibling and finally one eighth had conflict with their own with their own parents. The causes of conflict in the family were mainly environmental tension, economic tension and clashing temperament. The remaining social indicators of quarrels are miscellaneous.

Discussions

Our findings in the area of social structure of the neurotic disorders indicate that it agrees with the findings of other research done in this area. As the sex, age and income-wise distribution is concerned some studies on neurosis in Vellore town reported higher prevalence of neuroses in females (Varghese and Beig, 1974). Other findings reveal that the prevalence of neurotic disturbance was more

among females, which is in the conformity with the observations of other workers both in the West and in the East (Lamkan, et al., 1942; Lin, 1953; Sethi, et al., 1967; Dube, 1970). Other studies also reported higher occurrence of neurosis in females.

It has been found has found most of neurotic patients come from female class (52.2%) as against their 47.9 Percent distribution of Uttar Pradesh population (Census Report, 2011), especially the house wife in all age groups but are more commonly found in the 20-30 years age group. In this aspect, there is a difference from the findings of Sethi et al. (1967) and Dube (1970). This is a significant as it indicates about no income groups are working as a significant finding as it indicates about no income groups are working as house wives, which is an important factor and may explain the inter-personal conflict as revealed by our sample. The findings, regarding religion and marital status of the sample are also significant. In our sample, 89 percent belong to the Hindu religion, the Muslims in our sample constitute 9.9 percent and Jains constitute 1.1 percent.

The marital status of the sample is significantly related to neurotic disorders. In our sample, 86.8 percent were married and 13.2 percent unmarried. Similarly this relationship also showed that married people are more prone to get neuroses than those who are single (Varghese, et al. 1973). The same pattern was also found by Dube (1970). Similarly, we have also observed about domicile and education of our sample that the urban status of the sample is also significant as compared to the education. This is corroborated by the study of Ostfeld and D'Atri (1995) who extensively reviewed data from the literature examining the relationship of urbanization changes and chronic diseases. The urban domicile in our sample constitutes 84.6 percent which is different from the general population distribution (21.1% urban population of Uttar Pradesh), whereas the rural was 15.4 percent of the group as against 78.9 percent of general population of Uttar Pradesh (Census report, 2011). As far as the education is concerned, our sample constitutes 49.5 percent of school level 13.7 percent of college and 18.8 percent of non- school level which shows that schooling level is lower literacy rate is also significantly related to neurotic disorder.

The occupation in our sample constitutes 17.6 percent government servants, 4.4 percent businessmen, 1.1 percent Farmers 2.3 percent daily wages worker 7.7 percent student, 3.2 percent retired person,, 5.5 percent unemployed person, 58.2 percent house wives which reveals that house wives are more significantly related to neurosis.

The analysis of the stress in the family of our sample constitutes 17.1 percent parent's loss in child-hood, 10.5 percent family members suffering from mental illness, 23.8 percent from chronic illness



of spouse, 27.1 percent loving kin-expire, 10.7 percent childless family, 3.3 percent no son and 7.5 percent too many children which reveal that the loving kin-expired of the sample is significantly related to neurotic problems.

The finding regarding present complaints in our sample constitutes 5.5 percent impaired social functions, 9.9 percent physical complaints, 30.0 percent sleep disturbance, 28.2 percent neurotic symptoms and 26.0 percent neurological symptoms, which reveals that the sleep disturbance of the sample is significantly related to neurotic disorders.

The analysis of the above presented complaints of the sample indicates the family problems. of these, husbands (26.7 percent) conflict with their own parents, (12.3 Percent) parental family of spouse have conflict (26.7 percent) and finally conflict with either person with his/her sibling (20 percent) which reveals that the conflict with husband is due to economic tension and parental family of spouse due to environmental tension are significantly related to neurotic disorder .

CONCLUSION

It may be concluded that there are social problems in the family and mainly the spouse and in-Laws of the patients in their inter-personal relationship. In these cases we need supportive counseling also with psychiatric treatment. But most of the cases have requirement of change in the social structure of the family or psychiatrists must advise them for family therapy for their better adjustment with family and society.

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A STUDY ON CUSTOMERS ATTITUDE TOWARDS HANDLOOM PRODUCTS WITH SPECIAL REFERENCE TO COIMBATORE DISTRICT

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ABSTRACT

Handloom Industry is the essential piece of material industry in our nation. This industry is set in the second position as far as arrangement of business and comes close to horticulture. It is the biggest cabin businesses which produce Cotton, Silk, Jute and Khadi in huge amounts. The interest and prevalence of Indian handloom has been becoming in our nation, yet in addition around the globe. Handloom texture has a one of a kind character which other factory made or powerloom texture doesn't have. The uniqueness of handloom items looked at with other plant made fabrics isn't known to the client. Henceforth the current examination is an endeavor to comprehend the client mindfulness about handloom items.

INTRODUCTION

Today, in Tamilnadu, out of 4.27 lakh handlooms, 2.83 Lakh handlooms are in cooperative fold producing about Rs.450 Crore worth of handloom cloth. of these weavers within the State are organized through 1354 handloom weavers' cooperative societies. Since of these societies were scattered and were unable to plug their handloom individually, formation of a state level apex-marketing cooperative was needed to plug procured handloom through the network of outlets in and out of doors of Tamilnadu thus providing ensured marketing support. it's only during this context, the Tamilnadu Handloom Weavers' Cooperative Society Limited, popularly referred to as "Cooptex" was established in 1935. Besides, marketing of handloom, Cooptex also procure yarn from 14 Coop. Spinning Mills of the State and also from the National Handlooms Development Corporation to provide to member societies.

STATEMENT OF THE PROBLEM

The utilization of handloom items all in all isn't just agreeable yet additionally don't make any issue to the clients. Then again, the utilization of material/power loom items are either regular or momentary situated. For the way that, utilizing the material/power loom items are chic, customers resort to purchase a greater amount of these items in the customary day today life. Other than this reality, handloom items don't experience the ill effects of different constraints, for example, non-accessibility of assortments, shading, structure and so forth.

Scope of study

The current investigation is elucidating in nature and is primarily based on essential information. Organized survey technique was utilized as a primary device for gathering the essential information. The survey was structured in a systematic method of covering satisfactory data in all features of the examination.

Objective of study

- To study the mindfulness level of clients with respect to handloom items



- To study the current practices and factors that impacts the acquisition of handloom items.
- To study the clients thoughts, feeling and inclination towards handloom items.
- To study the clients fulfillment towards handloom items.
- To study the issues looked by the clients in utilizing the handloom items.
- To offer recommendations dependent on the aftereffects of the investigation.

STATISTICAL TOOL USED

1. Simple Percentage Analysis
2. Likert Scale Analysis
3. Rank Analysis

Limitation of study

The research is being carried out in Coimbatore city only from 150 respondents using an interview schedule method. However, data were collected from those respondents with utmost care and personal attention to avoid ambiguity in the results of the study.

REVIEW OF LITERATURE

R Ravi Kumar¹, Dr S K Gopal², (2020) 'A Study of Handloom Sector to Increase Productivity, Reduce Costs and Improve Quality', which they observed that different kinds of looms available for weaving process in the study area. In general handlooms are divided into two kinds one is pit loom and another one is frame loom. The productivity of the handlooms is very low and cost of production is also high due to lack of attention towards modern technologies.

Gunti Amaravathi, K. Bhavana Raj (2019), the most of the handloom products are not much have impressive, in later period have idle looms increased from the 1980s to 2010s. Younger generation is not interested to take handloom as a profession, low productivity, lagging behind technology, low income generation, health problems, competition from organized power loom and mill sector, insufficient marketing infrastructure, lack of initiation in export, and lack of government support.

Asit Paul (2019) as a small scale and cottage industry it deserves a special attention as it need a small capital investment. This industry is labour intensive and decentralized in nature. Handloom sector also has the competence to minimize the regional imbalances as it are decentralized in nature and even in the most remote and backward areas handloom industry may flourish.

Low wage of labour is a severe problem for the weavers of whole Dakshin Dinajpur. Among the all other problems this problem ranks first in handloom of Dakshin Dinajpur. It has the highest intensity in Gangarampur, Tapan and Kumargang Block. The problem of poor wage is so wide that the weavers are compelled to adopt substitute job.

DATA ANALYSIS AND INTERPRETATION

The data collected from the samples have systematically applied and presented in the tables under various headings in the following pages. They were also arranged in such a way that, a detailed analysis can; be made so as to present suitable interpretation for the same. The data have been analyzed using the following statistical tools.

- Simple percentage analysis
- Likert scale analysis
- Rank analysis

SIMPLE PERCENTAGE ANALYSIS:

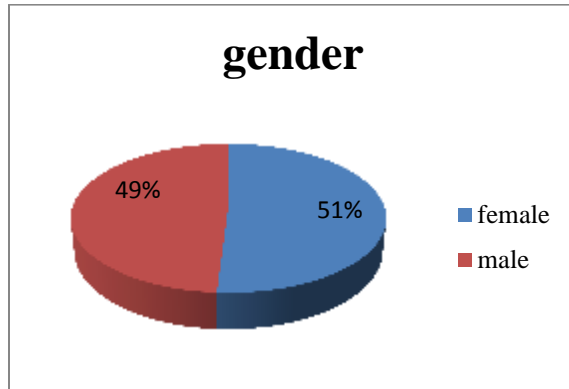
The percentage analysis is mainly employed to find the distribution of different categories of respondents. As the value are expressed in percentage it facilitates comparison and standardization. The analysis describes the classification of the respondents falling under each category.

FORMULA PERCENTAGE=

$$\frac{\text{Number of respondents}}{\text{Total number of respondents}} * 100$$

**TABLE NO: 1
GENDER OF THE RESPONDENTS**

Sl.NO	Gender	NO. OF. RESPONDENT	PERCENTAGE
1	MALE	74	49%
2	FEMALE	76	51%
	TOTAL	150	100



ITERPRRETATION

The above table, 49% respondents are male and 51% respondents are female.

Majority 51% of the respondents are female.

Table 2:
Aware of the handloom products

SI.NO	AWARE	NO. OF. RESPONDENT	PERCENTAGE
1	HIGH	86	57%
2	LITTLE	11	7.4%
3	NUETRAL	49	33%
4	NO AWARE	4	3%
	TOTAL	150	100%

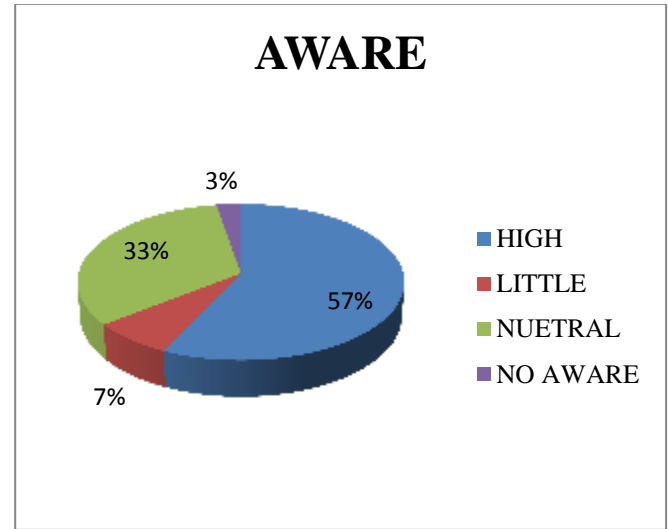
LIKERT SCALE ANALYSIS

A Likert scale analysis is a method of meaning attitude. Ordinal scale of responses to a question or statement, ordered in hierarchical from strongly negative to strongly positive. Used mainly in behavioral science, in likert's method a person's attitude is measured by combining (adding pr averaging) their responses all items.

Table 3:
TABLE SHOWS THE SATISFACTION LEVEL OF THE RESPONDENTS
(opinion about usage of handloom products)

SI. NO	FACTOR	NO. OF. RESPONDENT	LICKE R SCALE	TOTAL SCALE
1	Highly satisfied	87	4	348
2	Satisfied	51	3	153
3	Neutral	12	2	24
4	Dissatisfied	0	1	0
	TOATL	150		525

Likert Value= $\frac{fx}{no. \text{ of respondent}} = \frac{525}{150} = 3.5$



ITERPRRETATION

The above table, 57% of the high aware, 7% little of aware, 33% of neutral, 3% of the peoples are no aware.

Majority (57%) of the respondents are high aware.

FORMULA:

Likert scale = $\frac{\sum (FX)}{\text{Total number of respondents}}$

F = Number of Respondents

X = Likert Scale Value

(FX) = Total Scale

INTERPRETATION

From the above table about the level of satisfaction regarding the shows opinion of the handloom products Likert Scale value is 3.5 which are greater than the mid value(3). Hence the customers are most of the members are highly satisfied.



Table 4:
TABLE SHOWS THE SATISFACTION LEVEL OF
THE RESPONDENTS
(comfortable with buying of handloom
products)

SL.N O	FACTOR S	NO. OF. RESPONDEN T	LICKE R SCALE	TOTA L SCALE
1	Easily available	103	4	412
2	Rare available	25	3	75
3	Less available	21	2	42
4	No available	1	1	1
	TOTAL	150		530

Likert Value= $\frac{fx}{\text{no. of respondents}}$
= $\frac{530}{150} = 3.53$

INTERPRETATION

From the above table about the level of satisfaction regarding the shows opinion about comfortable of buying handloom products Likert Scale value is 3.53 which are greater than the mid value(3). Hence the customers are most of the members are says easily available.

RANK ANALYSIS

A Rank analysis is any of several statistics that measure an ordinal association. The relationship between ranking of different ordinal variables or different ranking of the same variable. Where “ranking” is the assignment of the label “first”, “second”, “third”, etc. to different observations of a particular variable.

Table 5
TABLE SHOWS THE RESPONDENTS HANDLOOM PRODUCTS.

SL.NO	FACTORS	RANK I	RANK II	RANK III	RANK VI	RANK V	RANK VI	RANK VII	RANK VIII	TOTAL	RANK
1	Sarees	100(8) 800	17(7) 199	12(6) 72	4(5) 20	2(4) 8	0(3) 0	3(2) 6	12(1) 12	1,117	1
2	Dhoti	77(8) 616	41(7) 287	12(6) 72	4(5) 20	2(4) 8	0(3) 3	4(2) 8	10(1) 10	1,024	2
3	Towel, Gramsa and Angavasthrum	72(8) 576	30(7) 210	30(6) 180	2(5) 10	4(4) 16	1(3) 3	5(2) 10	6(1) 6	1,011	3
4	Lungi	73(8) 584	27(7) 189	22(6) 132	14(5) 70	3(4) 12	1(3) 3	5(2) 10	5(1) 5	1,005	4
5	Case, Bed sheet, Bedcover counter pan, furnishing.	77(8) 616	31(7) 217	13(6) 78	3(5) 15	14(4) 56	2(3) 6	5(2) 10	5(1) 5	1,003	5
6	Jamukkalam, Tevy or Tort	82(8) 656	11(7) 77	18(6) 108	4(5) 20	4(4) 16	12(3) 36	4(2) 8	7(1) 7	928	8
7	Dress material	70(8) 560	30(7) 210	16(6) 96	8(5) 40	1(4) 4	2(3) 6	14(2) 28	9(1) 9	953	6
8	Blanket, Woolen	68(8) 544	28(7) 196	21(6) 126	6(5) 30	3(4) 12	2(3) 6	6(2) 12	16(1) 16	942	7

(Source: Primary Data)

INTERPRETATION

The table shows that out of 150 respondents, Sarees is in the rank 1, Dhoti is in the Rank 2, Towel, Gramsa and Angavasthrum is in the Rank 3, Lungi is in the Rank 4, Case, Bed sheet, Bedcover counter pan, furnishing is in the Rank 5, Dress material is in the Rank 6, Blanket, Woolen is in the Rank 7, Jamukkalam, Tevy or Tort is in the rank8.

INFERENCE

This is resulted that Sarees is in the Rank 1 that respondents give for the handloom products.

FINDINGS, SUGGESTIONS AND CONCLUSION

Finding

- From the study it was found that majority of the handloom user age is between 21-30.
- From the study it was found that majority of the respondents are student.
- From the study it was found that majority of the respondents are highly aware about handloom products.



- From the study it was found that majority of the respondents are aware from television.
- From the study it was found that majority of the respondents are using handloom products influence by self only.
- From the study it was found that majority of the respondents use Sarees, Shawls only.
- From the study it was found that majority of the respondents are highly satisfied about handloom product about products, price, quality, Variety.
- From the study it was found that majority of the respondents are female so the respondents are highly ranked for Sarees.
- From the study it was found that majority of the respondents are usage of handloom products is highly satisfied.
- From the study it was found that majority of the respondents are highly comfortable to buy the handloom products.

Suggestions

From the above analysis of the survey and personal observation of the study of customer attitude towards handloom products, lots of experience was gained from the survey. The observations and suggestions provided by the researcher will help in the competitive environment.

- From the study it was found that majority of spend RS.1500 and above of the handloom products.
- From the study it was found that majority of the respondents buy handloom products from retailers.
- From the study it was found that majority of the respondents are mostly buy cloth items.
- From the study it was found that majority of recently purchased the handloom products between 1-4 months.
- From the study it was found that majority of the respondents are use handloom products are comfort ability.

Conclusion

Through the research paper entitled, "A study on customer attitude toward handloom product special reference to Coimbatore district", it is concluded that the demographic variables such as group, gender and occupation are having less impact on the factors of customer satisfaction. The research outcome also indicates that, most of the respondents are females they are comfortable with buying and using of handloom products. The study it was found

that majority of the respondents are use handloom products are comfort ability.

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<http://www.researchersworld.com/ijms/> Vol.-V, Issue -2(3), April 2018 [1] DOI : 10.18843/ijms/v5i2(3)/01 DOI URL :[http://dx.doi.org/10.18843/ijms/v5i2\(3\)/01](http://dx.doi.org/10.18843/ijms/v5i2(3)/01).



A STUDY ON CUSTOMER SATISFACTION TOWARDS SHANTHI SOCIAL SERVICES WITH SPECIAL REFERENCE TO MEDICAL SHOP, COIMBATORE

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ABSTRACT

Healthcare is one of India's largest sectors, in terms of revenue and employment and one can well witness the sector to expand rapidly. It has been observed that delivery of quality service is imperative for Indian healthcare service. The number of people requiring health care services has steadily increased, and this trend will likely continue. Due to many of society's changing social and health issues, pharmacists will face new challenge.

KEY WORDS: Pharmacist, Health Care, Service Quality, Service Sector

INTRODUCTION

Health as one of the Fundamental Human Right has been accepted in the Indian Constitution. Although Article 21 of the Constitution requires the State to endure the health and nutritional well being of all people, the Federal Government has a substantial technical and financial role in the sector. Post liberalization, the healthcare industry emerges with greater opportunities and quality changes. Health care sector is an important segment in the service industry. In fact, healthcare services are essential at every place as its need may arise anywhere. Hospitals are service organizations that have now become and industry legally and practically.

SCOPE OF THE STUDY

This report provides a detailed view of Shanthi Gears medical services and detailed information on Shanthi Gears medical services. Medical services specialized in public health and they work in hospitals or other specialized medical settings like nursing

STATEMENT OF THE PROBLEM

Nowadays the customers can purchase any products, but the customers want to like the quality products. So quality is an important for any product. Now the level of satisfaction of is customer an Essential one. Highly quality products are most welcome by the customers, because the poor quality products may easily affect the health. So the necessity that has arisen for the study has been to identify the level of customer satisfaction towards Shanthi Gears Medical Shop. Hence, the current study on customer satisfaction towards Shanthi Gears Medical Shop has been conducted.

homes, related home care services the social services are in many areas our specific study is on Shanthi Gears towards Coimbatore city.



OBJECTIVES OF THE STUDY

- ❖ To review on customer Expectation and satisfaction towards Medical Shop.
- ❖ To study of perceived quality services on customer.
- ❖ To study the level of satisfaction of the customer towards Medical Shop.

STATISTICAL TOOL USED

1. Simple Percentage Analysis
2. Likert Scale Analysis
3. Rank Analysis

LIMITATIONS OF THE STUDY

1. The effectiveness of the study may be affected due to the personal bias of the respondents.
2. My study is only limited to Coimbatore City.
3. The sample size is limited to 120 respondents only. With the limited respondents the findings may not be applicable to the total population.

REVIEW OF LITERATURE

Fugaru Cecilia (2017)¹The purpose of the present research consists in diagnosing the zone tolerance for the medical services provided by an Shanthi Gears Medical Shop, in orders to improve the quality of its services and customer satisfaction. Consequently, the Shanthi Gears Medical shop considered for this research should use its best efforts in order to enhance its medical equipment to increase customer satisfaction. The purpose of this research was to identify the zone to tolerance and measure the quality of services provided by the Shanthi Gears Medicals Shop.

D.P. Sudhagar (2017)² the present study will aim to see the factors associated with medical shops outlets. Customer's holds strong importance towards Quality, Offers, Discount, Convenience and performance of workers. The study successfully accomplishes the overall objective of the research by taking out the gaps

in the quality attributes of the medicines outlets in the Chennai City South India.

Dr. S.J. Manjunath (2016)³, every business needs not only to retain its current customers but also to expand customer's base significantly and it is possible only when target customer is fully satisfied from some parameters. Customer satisfaction in medical shop is showing dependency on service quality, Product Quality, Price, Customer satisfaction, Physical Environment, discount and offers. This study tested the model of customer satisfaction in full services on Medical shops.

DATA ANALYSIS AND INTERPRETATION

The data collected from the samples have systematically applied and presented in the tables under various headings in the following pages. They were also arranged in such a way that, a detailed analysis can be made so as to present suitable interpretation for the same. The data have been analyzed using the following statistical tools.

- Simple percentage analysis
- Likert scale analysis
- Rank analysis

SIMPLE PERCENTAGE ANALYSIS:

The percentage analysis is mainly employed to find the distribution of different categories of respondents. As the value are expressed in percentage it facilitates comparison and standardization. The analysis describes the classification of the respondents failing under each category.

FORMULA

PERCENTAGE=

$$\frac{\text{Number of respondents}}{\text{Total number of respondents}} * 100$$

TABLE 1
TABLE SHOWS THE GENDER OF THE RESPONDENTS

S.NO	FACTORS	NO.OF RESPONDENTS	PERCENTAGE
1	Male	51	43%
2	Female	69	57%
	Total	120	100%

(Source : Primary Data)

INTERPRETATION

The table shows that out of 120 respondents, 57% of the respondents are Female, 43% of the respondents are Male.



INFERENCE

Hence, Majority of 57% of the respondents are Female.

TABLE 2
TABLE SHOWS THE OCCUPATION OF THE RESPONDENTS

S.NO	FACTORS	NO.OF RESPONDENTS	PERCENTAGE
1	Business	29	24%
2	Professional	26	22%
3	Student	21	17%
4	Employee	32	27%
5	Others	12	10%
6	Total	120	100%

(Source: Primary Data)

INTERPRETATION

The table shows that out of 120 respondents are Employee, 24% of the respondents are business, 22% of the respondents are Professionals, 17% of the

respondents are Students, 10% of the respondents are Others.

INFERENCE

Hence, Majority 27% of the respondents are Employees.

RANK ANALYSIS

A Rank analysis is any of several statistics that measure an ordinal association. The relationship between ranking of different ordinal variables or

different ranking of the same variable. Where "ranking" is the assignment of the label "first", "second", "third", etc. to different observations of a particular variable.

TABLE 3
TABLE SHOWS THE RESPONDENTS PREFERENCE/IMPORTANCE WILL BUYING MEDICINES.

S.NO	FACTOR S	RANK I	RANK II	RANK III	RANK IV	RANK V	RANK VI	RANK VII	TOTAL	RANK
1	Good Service	23(7) 161	30(6) 180	27(5) 135	18(4) 72	5(3) 15	9(2) 18	8(1) 8	589	1
2	Price	27(7) 189	22(6) 132	21(5) 105	21(4) 84	12(3) 36	6(2) 12	11(1) 11	569	2
3	Good Quantity	15(7) 105	21(6) 126	19(5) 95	12(4) 48	17(3) 51	25(2) 50	11(1) 11	486	3
4	Good Quality	18(7) 126	14(6) 84	12(5) 60	22(4) 88	20(3) 60	16(2) 32	18(1) 18	468	4
5	Discount	11(7) 77	10(6) 60	18(5) 90	8(4) 32	22(3) 66	22(2) 44	28(1) 28	397	7
6	Home Delivery	7(7) 49	14(6) 84	11(5) 55	14(4) 56	29(3) 87	25(2) 50	20(1) 20	401	6
7	Reputed Name	20(7) 140	9(6) 54	13(5) 65	25(4) 100	15(3) 45	16(2) 32	22(1) 22	458	5

(Source: Primary Data)



INTERPRETATION

The table shows that out of 120 respondents, Good service is in the rank 1, Price is in the Rank 2, Good Quantity is in the Rank 3, Good Quality is in the Rank 4, Reputed Name is in the Rank 5, Home Delivery is in the Rank 6, Discount is in the Rank 7

INFERENCE

This is resulted that Good Service is in the Rank 1 that respondents give preference/Importance while buying Medicines.

LIKERT SCALE ANALYSIS

A Likert scale analysis is a method of meaning attitude. Ordinal scale of responses to a question or statement, ordered in hierarchical from strongly negative to strongly positive. Used mainly in behavioral science, in likert's method a person's attitude is measured by combining (adding or averaging) their responses all items.

FORMULA:

Likert scale = $\sum (fx) / \text{Total number of respondents}$

F = Number of Respondents

X = Likert Scale Value

(fx) = Total Scale

TABLE 4
TABLE SHOWS THE SATISFACTION LEVEL OF THE RESPONDENTS (EXCHANGE OF MEDICINES)

S.NO	FACTORS	NO.OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL SCALE
1	Highly Satisfied	15	5	75
2	Satisfied	83	4	332
3	Neutral	20	3	60
4	Dissatisfied	1	2	2
5	Highly Dissatisfied	1	1	1
	Total	120		470

(Source: Primary Data)

Likert Value = $fx / \text{no. of respondents}$
= $470 / 120$
= 3.9

INTERPRETATION

From the above table about the level of satisfaction regarding the Shanthi Gears medical shops shows Likert Scale value is 3.9 which are greater than the mid

value(3). Hence the customer satisfied with the Exchange of Medicines.

TABLE 5
TABLE SHOWS THE SATISFACTION LEVEL OF THE RESPONDENTS (CREDIT AND DEBIT CARD FACILITIES)

S.NO	FACTORS	NO.OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL SCALE
1	Highly Satisfied	23	5	115
2	Satisfied	62	4	248
3	Neutral	30	3	90
4	Dissatisfied	3	2	6
5	Highly Dissatisfied	2	1	1
	Total	120		460

(Source: Primary Data)



$$\begin{aligned}\text{Likert Value} &= \sum x / \text{no. of respondents} \\ &= 460 / 120 \\ &= 3.8\end{aligned}$$

INTERPRETATION

From the above table, it shows the level of satisfaction regarding the Shanthi Gears medical shop shows Likert Scale value is 3.8 which are greater than the mid value(3), Hence the customer satisfied with the Credit and Debit Card Facilities.

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

- ❖ Majority 45% of the respondents are between the age of 2-30 years.
- ❖ Majority of 57% of the respondents are Female
- ❖ Majority of 52% of the respondents are Married.
- ❖ Majority of 27% of the respondents are Employees.
- ❖ Majority 39% of the respondents of the family income is 2-3 Lakhs.
- ❖ Majority 62% of the respondents Family size is 3-4 Members.
- ❖ Majority of 38% of respondents are influenced by Friends.
- ❖ Majority of the respondents are spending Rs.601-1500 on Medicines.
- ❖ Majority 41% of the respondents prefer Shanthi Gears Medicals for Good Quality.
- ❖ Majority of respondents 1-2 family members are consuming tablets regularly.
- ❖ Majority of 83% of the respondents are agreeing that all types of Medicines are Available in Shanthi Gears Medical Shop.
- ❖ Majority 96% of the respondents are not faced any problem due to Expiry date tablets.
- ❖ Majority 37% of the respondents are visiting Shanthi Gears Medical Shop 8.12 Months.
- ❖ This is resulted that Good Service is in the Rank I that respondents give Preference/Important while buying Medicines.
- ❖ Hence the customer satisfied with the Exchange of Medicines.
- ❖ Hence the customer satisfied with the Credit and Debit Card Facilities.
- ❖ Hence the customer satisfied with the Environment of the Medical Shop
- ❖ Hence the customer satisfied with the Service of the Medical Shop.
- ❖ Hence the customer satisfied with the Over all Performance of Shanthi Gears Medical Shop.

- ❖ The discount rate must be increased because normally other medical shops are also providing the same discount rate.

SUGGESTIONS

- ❖ Sales by telephone and internet should be encouraged.
- ❖ Door delivery should be promoted or extended to more kms. A large proportion of customers recommended to adopt these measures and aged people tended to prefer door delivery.
- ❖ Sufficient stock of medicines should be always made available.
- ❖ There must be high quality goods with a wide choice of Brands.
- ❖ Introduce customer relationship management by collecting customer information.
- ❖ There is no any advertisement for the Medical Shop so have to make an advertisement for the customer to know about the medical shops and offers and discounts.
- ❖ Provide an opportunity for the customers to give feedback is an excellent way to improve your service.

CONCLUSION

Through the research paper entitled, "A Study on customer satisfaction towards Shanthi Gears Medical Shop", it is concluded that the demographic variables such as group, gender and occupation are having less impact on the factors of customer satisfaction. The research outcome also indicates that, most of the customers were satisfied towards Shanthi Gears Medical Shop with respect to the chosen factors. This study also indicates that the customers loyalty towards the Shanthi Gears Medical Shop is also good.

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G.B.SHAW'S SAINT JOAN - A DIALOGUE BETWEEN THE ANCIENT AND THE MODERN WORLDS

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ABSTRACT

My paper attempts to peruse Joan's religious fanaticism, reaching us through the perspective of 600 years and then filtered through Shaw's imagination, becoming the protest of a plain-spoken individual conscience. "What other judgment can I judge by but my own?" The events presented constitute the birth of the great changes that would hit the middle-aged Europe in the forthcoming decades. Indeed, if one adopts a post-colonial stance, it is quite possible to see Joan as a champion not only of Nationalism, but also of anti-colonialism. We are shown Joan's posthumous rehabilitation as an example of a modern show trial, and her original court hearing as one of history's terrible state trials. In Shaw's view Joan was, like Jesus, an agent for change, a change within the established church. When Cauchon, the Bishop of Beauvais, cries out: "Must then a Christ perish in torment in every age to save those who have no imagination?" this connection is made plain, and Joan herself endorses it when she tells the court: "I am His Child, and you are not fit that I should live among you." So Saint Joan becomes Shaw's passion play and represents Joan's life as another coming of Christ to our world.

KEYWORDS: Fanaticism, nationalism, Saint Joan, torment, trial.

INTRODUCTION

The character of Saint Joan has been a source of inspiration for many writers. Besides Schiller and Shaw, she became a central figure in the works of Shakespeare, Voltaire and Mark Twain. The unique power of Shaw's Saint Joan arises from its emphasis on factors which seem to conflict with the legend of a saint, yet under grid the legend by giving it a fresh, contentious, and broad context. Shaw subjects mysticism to rationalism, heroism to skepticism, villainy to understanding, and sanctity to humor, piercing traditional stereotypes with an unrelenting scrutiny. The myth emerges with a new energy and strength, having been rendered both credible and poignant on grounds which appeal to the modern imagination. Charles Berst comments, "The tale of Joan is vividly presented, but more intriguing is Shaw's penetrating conceptualization of the intrinsic nature of Joan, of the complex society in which she lived, and of their nearly epic inter- relationship. While qualifying

the supernatural with the human, Shaw links the human to great abstractions. He thereby vitalizes both myth and history with a twofold thrust, rendering them movingly alive through convincing human denominators and memorably significant through timeless social and spiritual implications" (Berst 73).

Saint Joan offers a wide range of aspects open to interpretation. Apart from the historical picture of her person and the circumstances of her time, Shaw manages to interlace his own ideas on progress, nationalism and religion into the character of Joan. In order to understand the character Joan of Arc, it is inevitable to take a closer look at the political situation of France at the end of the 14th and beginning of the 15th centuries. The major focus at that time was the conflict between England and France, which were at war intermittently between 1337 and 1453 based on the fact that Edward III of England and later Henry V lay claim to the French throne. It was in 1428 that the English forces occupied the northern part of France and



lay siege to Orleans. At this point the young country girl Joan of Arc arrived on the scene and took a major role in lifting the siege by leading the Dauphin's troops to Orleans. Born around 1412 in the village of Domremy she started hearing voices at an early age of thirteen, voices and visions of St. Michael, St. Catherine and St. Margaret. In May 1428 these voices led her to the king of France to help him recover his kingdom. After lifting the siege of Orleans, which proved a crucial turning point for the French forces, further significant victories followed. In July 1429 Joan was invited to attend the coronation of Charles VII at Rheims Cathedral. It was in May 1430 that she was captured by Burgundian soldiers and handed over to the Bishop of Beauvais. The trial took place at Rouen at the end of March 1431. After Joan had changed the initial declaration that she repudiated her heresies, she was condemned to death and burned at the stake on May 30, 1431. 25 years later, the Pope annulled the sentence passed on her and she was exonerated of all guilt. In 1920 she was ultimately canonized by Pope Benedict XV. We are shown Joan's posthumous rehabilitation as an example of a modern show trial, and her original court hearing as one of history's terrible state trials. Perhaps Shaw had a sense of what was soon to happen in Hitler's Germany. He believed that when a country fell too far behindhand with its political institutions you were likely to get dictatorships, and when you get dictatorships you will get secret tribunals dealing with sedition and political heresy - like the Inquisition.

The established Church, the Catholic Church, was the supreme authority in religious matters and even kings and princes dared not go against its dictates. The Holy Inquisition had the sole jurisdiction over religious offences and not even the King could dare to question its judgement. The belief in witchcraft and magic was widespread and the burning of witches was an everyday phenomenon. However in the early 15th century the Church was engaged in a life and death struggle against the rising tide of Protestantism. Huss in Central Europe and Wycliffe in England had already thundered against the authority of the Church, and Martin Luther was soon to be born.

In Shaw's view, Joan was, like Jesus, an agent for change - change within the established church. When Cauchon, the Bishop of Beauvais, cries out: "Must then a Christ perish in torment in every age to save those who have no imagination?" this connection is made plain, and Joan herself endorses it when she tells the court: "I am His Child, and you are not fit that I should live among you." She, with her individual judgement and inspiration, comes into a headlong clash with this

all-powerful organization. She represents a force greater than herself, she is guided by a power vaster than her individual self. She has firm faith in her visions and voices.

Joan's religious fanaticism, reaching us through the perspective of 600 years and then filtered through Shaw's imagination, becomes the protest of a plain-spoken individual conscience. "What other judgment can I judge by but my own?" she asks. Shaw presents her to us as an evolutionary force all of whose miracles, though capable of natural explanation, are allowed to trail as legends in the wake of her miraculous personality. In the staging of this 15th-century campaign he translated his own assertion of style into Joan's inspired efficiency of action. But Saint Joan is a tragedy without villains, for everyone, in some way or another, believes he or she is acting for the good. The tragedy lies in human nature itself, which involves us all. Holroyd says that "The epilogue gives Shaw the chance to step forward and talk the play over with the audience. What he tells us is that we too would burn Joan at the stake if we got the chance. It is a sombre message, and Shaw has been attacked for it. For this, out of more than 50 plays, is his only tragedy" (Holroyd 18).

Shaw wrote *St Joan* in 1923, three years after her canonization by the Catholic Church. In this opus Joan is the receptive individual which the Shavian Life Force needs in order to shape history-in fact, Shaw considers Joan as the first Nationalist and the first Protestant the world has ever known. Still, as many great leaders, according to Shaw Joan was not fully aware of her historical role. The prevailing structures in the middle-aged religious and social framework were Catholicism and feudalism. In the Shavian view, Joan was repudiating both such structures. Joan's *divine* mission to crown the Dauphin as King of France is seen as an affirmation of national pride-which cuts across class divisions. On the other hand, Joan is regarded as the first protestant in as much as she rejected the institutional authority of the Church. In fact, her refusal to allow priests to mediate between her and the divine would form the core of Protestantism.

An important historical breakthrough in *St Joan* is the legitimating of double standards. The same action, even if recognized as objectively wrong, unethical, immoral or discriminating at a given historical moment like the present time-can be pious and deemed as correct at another historical moment-the Middle Ages. According to Shaw, individuals cannot be *judged* as pious or corrupted if not considered and analyzed altogether with the historical moment they live in. Their actions alone are insufficient for such task. This



legitimation of double standards allows Shaw to defend Bishop Peter Cauchon - the judge who condemned Joan D'Arc to death for heresy and witchery-against charges of corruption raised by the 20th century scholars. Shaw argues that the judge's decision was conform to the values of his time, expression of the middle-aged culture. Even though absurd for the modern man, those values were meant to produce order and meet the needs of the era they were introduced, i.e., Middle Ages.

In the conclusion, Joan d'Arc is presented as a practical woman, a harbinger of radical change who was condemned not by the vices of her time but its virtues as personified by Bishop Cauchon. The drama is not to be seen as a fight between good and evil. The events presented constitute the birth of the great changes that would hit the middle-aged Europe in the forthcoming decades.

For Shaw, a mere presentation of the given facts, with whatever dramatic dexterity it might be carried out, was not enough. What he does in the play is to give his interpretation of Joan's story; this is in fact what each of the authors dealing with the theme before him had done in his or her own way, but by the course of history Shaw was privileged over the previous writers dealing with Saint Joan in two ways: he had access to the "historical truth" through Quicherat's documents. He studied minutely the complete and authentic records of Joan's trial through the scholarly translation of T. Douglas Murray published in 1902 and Joan's canonization in 1920 opened an additional perspective from which her story could be viewed. Though this act was in principle only a perfection of the 1456 rehabilitation process, such intensive interest in her person nearly half a millennium after her time and the symbolical significance of proclaiming Joan a saint, offered Shaw an opportunity to give his opinion not only on the story of Joan's life and death but on modern history in general.

Shaw held that history was "an indispensable part of the education of a citizen" (Shaw 180). But he was grossly dissatisfied with the way history was taught at schools. He proclaimed to have derived his knowledge and consciousness of history from the works of Shakespeare, Scott, Dickens, Dumas and others - i.e. from artistically transformed interpretations of history, and he hoped that his own plays would serve next generations in a similar way.

Through history comes the value of learning, through learning come lessons and through lessons come the applicable knowledge to the present. In Bernard Shaw's Saint Joan, the modern world can adapt to three main lessons. The first one being that a single person can make a big difference. Another

lesson would be to achieve your goals no matter the boundaries set by the world, finally, one of the important character traits, loyalty. By discovering these lessons and applying it to the contemporary world, we can make an evolution to create a flourishing existence. "The wind has changed. God has spoken. You command the king's army. I am your soldier." Joan has created an influence and a belief that she has changed the winds of fate with the help of God, and turned over a victory to France. To look over Joan's devotion to her hard work, she has accomplished what most say is a miracle beyond belief.

With his keen understanding, Shaw has discerned that the tragic story of Joan would be devoid of meaning altogether if it is read as one in which an innocent "Lamb" is slaughtered by evil 'butchers.' Instead, he presents Cauchon, the Bishop of Beauvais, the Inquisitor and all those with them in the long drawn-out sham of a trial as fools who act out of ignorance born of self-importance or pride. They are all, as Joan comments penetratingly in the *Epilogue*, "as honest a lot of poor fools as ever burned their betters." In terms of Plato's myth, they are prisoners who are so caught up with and certain of the shadows on the wall of their cave that they simply cannot see the Light, even when it comes down to them from above.

This is supported by a point discussed by Shaw himself in his lengthy *Preface*. He argues that inborn genius provokes fear and hate, whereas shallow abilities, especially in the realm of military leadership and politics, are welcomed and even praised. We readily reward and elevate the soldiers, while we gladly get rid of the rare seers and the saints in our midst. Or as Shaw says more pithily, "it is far more dangerous to be a saint than to be a conqueror". In a way the play is a record of what mankind does to its geniuses and saints. Man wants neither. This remarkable saint-soldier who lived as God told her, yet a simple maid, who delivered her country from confusion, claiming nothing for herself, who was a leader of the men, yet no more than a girl, is taken as an example of how the chief instruments of human society, the state and the Church combine in natural hatred to crush goodness, purity and the voice of truth.

CONCLUSION

The art of Shaw is discernible in the universal significance that he has imparted to the martyrdom of Joan. She is viewed as representing forces of revolt-Protestantism and Nationalism against the established Church and the Feudal order. Warwick stands for the feudal order and Bishop Cauchon for the Catholic Church. Thus particular is generalized. The *Epilogue*



further suggests that there is no end to the struggle in which Joan was engaged. There is no cessation in the march of the Evolutionary will, it enters into a new phase as one generation succeeds another.

With *Saint Joan* (1924), his masterpiece, Shaw was again accepted by the post-war public and was also the recipient of the prestigious Nobel prize. Now he was regarded as a second Shakespeare, who had revolutionized the British theatre. I conclude with a quote by Raymond Williams, "Shaw has redeemed and embellished our fantasies, and we are properly grateful. But for how long, how long?" (Williams 152).

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CHARACTERISTICS OF SMOOTH MAPPING AND SINGULAR POINTS

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ABSTRACT

This paper is devoted to the study of smooth mappings and it has been shown its mapping of surface into 3-dimensional spaces, as well as Thom-Boardman singularities. Certain other results have also been proved.

In mathematics, singularity theory studies spaces that are almost manifolds, but not quite. A string can serve as an example of a one-dimensional manifold, if one neglects its thickness. A singularity can be made by balling it up, dropping it on the floor, and flattening it. In some places the flat string will cross itself in an approximate "X" shape. The points on the floor where it does this are one kind of singularity, the double point: one bit of the floor corresponds to more than one bit of string. Perhaps the string will also touch itself without crossing, like an underlined "U". This is another kind of singularity. Unlike the double point, it is not stable, in the sense that a small push will lift the bottom of the "U" away from the "underline".

Vladimir Arnold describes the main goal of singularity theory as describing how objects depend on parameters, particularly in cases where the properties undergo sudden change under a small variation of the parameters. These situations are called perestroika bifurcations or catastrophes. Classifying the types of changes and characterizing sets of parameters which give rise to these changes are some of the main mathematical goals.

A simple example might be the outline of a smooth object like a kidney bean. From some angles the outline is a smooth curve but as the object is rotated, the outline will first form a sharp corner and then a self-intersection with cusps. Singularities can occur in a wide range of mathematical objects, from matrices depending on parameters to wave fronts.

1-Preliminaries

Singularities arise naturally in a huge number of different areas of mathematics and science. As a consequence Singularity Theory lies at the cross roads of the paths connecting the most important areas of applications of mathematics with its most abstract parts. For example, it connects the investigation of optical caustics with simple Lie algebras and regular polyhedral theory, while also relating hyperbolic PDE wave fronts to knot theory and the theory of the shape of solids to commutative algebra.

The main goal in most problems of singularity theory is to understand the dependence of some objects of analysis and geometry, or physics, or from some other science on parameters. For generic points in the parameter space their exact values influence only the quantitative aspects of the phenomena, their qualitative, topological features remaining stable under small changes of parameter values.

However, for certain exceptional values of the parameters these qualitative features may suddenly change under a small variation of the parameter. This change is called a perestroika, bifurcation or catastrophe in different branches of the sciences. A typical example is that of Morse surgery, describing the perestroika of the level variety of a function as the function crosses through a critical value. (This has an important complex counterpart - the Picard-Lefschetz theory concerning the branching of integrals.) Other familiar examples include caustics and outlines or profiles of surfaces obtained from viewing or projecting from a point, or in a given direction.

In spite of its fundamental character, and the central position it now occupies in mathematics, singularity theory is a surprisingly young subject. So, for example, one can consider the singularities arising from the



orthogonal projections a generic surface in 3-space, a problem of surely classical interest. Their classification was completed as recently as 1979.

In one sense singularity theory can be viewed as the modern equivalent of the differential calculus, and this explains its central position and wide applicability. In its current form the subject started with the fundamental discoveries of Whitney (1955), Thom (1958), Mather (1970), Brieskorn (1971). Substantial results and exciting new developments within the subject have continued to flow in the intervening years, while the theory has embodied more and more applications.

This program will bring together experts within the field and those from adjacent areas where singularity theory has existing or potential application. Applications of particular interest include those to wave propagation, dynamical systems, quantum field theory, and differential and algebraic geometry, but these should not be deemed prescriptive. It is the program's aim both to foster exciting new developments within singularity theory, and also to build bridges to other subjects where its tools and philosophy will prove useful.

2-How Singularities may arise

In singularity theory the general phenomenon of points and sets of singularities is studied, as part of the concept that manifolds (spaces without singularities) may acquire special, singular points by a number of routes. Projection is one way, very obvious in visual terms when three-dimensional objects are projected into two dimensions (for example in one of our eyes); in looking at classical statuary the folds of drapery are amongst the most obvious features. Singularities of this kind include caustics, very familiar as the light patterns at the bottom of a swimming pool.

Other ways in which singularities occur is by degeneration of manifold structure. The presence of symmetry can be good cause to consider orbifolds, which are manifolds that have acquired "corners" in a process of folding up, resembling the creasing of a table napkin.

3 - Arnold's view

While Thom was an eminent mathematician, the subsequent fashionable nature of elementary catastrophe theory as propagated by Christopher Zeeman caused a reaction, in particular on the part of Vladimir Arnold.^[2] He may have been largely responsible for applying the term singularity theory to the area including the input from algebraic geometry, as well as that flowing from the work of Whitney, Thom and other authors. He wrote in terms making clear his distaste for the too-publicized emphasis on a small part of the territory.

The foundational work on smooth singularities is formulated as the construction of equivalence relations on singular points, and germs. Technically this involves group actions of Lie groups on spaces of jets; in less abstract terms Taylor series are examined up to change of variable, pinning down singularities with enough derivatives. Applications, according to Arnold, are to be seen in simplistic geometry, as the geometric form of classical mechanics.

4-Duality

An important reason why singularities cause problems in mathematics is that, with a failure of manifold structure, the invocation of Poincare duality is also disallowed. A major advance was the introduction of intersection theory, which arose initially from attempts to restore duality by use of strata. Numerous connections and applications stemmed from the original idea, for example the concept of perverse sheaf in homological algebra.

5-Other Possible Meanings

The theory mentioned above does not directly relate to the concept of mathematical singularity as a value at which a function is not defined. For that, see for example isolated singularity, essential singularity, removable singularity. The monodromy theory of differential equations, in the complex domain, around singularities, does however come into relation with the geometric theory. Roughly speaking, *monodromy* studies the way a covering map can degenerate, while *singularity theory* studies the way a *manifold* can degenerate; and these fields are linked definitions.

6-Cone-like singularities

A manifold with singularities of Baas-Sullivan type is a topological space \bar{A} that looks like a manifold outside of a compact 'singularity set', while the singularity set has a neighborhood that looks like the product of manifold



and a cone. Here is a precise definition. Let P_1 be a closed manifold. A manifold with a P_1 -singularity is a space of the form

$$\bar{A} = A \cup_{A(1) \times P_1} A(1) \times CP(1)$$

$$\partial A = A(1) \times P_1$$

Here, A is a manifold with boundary $A(1)$.

More complex singularities occur if, instead of taking a cone over only one manifold P_1 , we allow a collection $\{P_1, \dots, P_k\}$ of several closed manifolds. In this case, we define a manifold with a $\{P_1, \dots, P_k\}$ -singularity to be a (second-countable and Hausdorff) topological space \bar{A} locally homeomorphic to one of the spaces

$$\mathbb{R}^n, \mathbb{R}^{n_1} \times CP_1, \mathbb{R}^{n_2} \times CP_1 \times CP_2, \dots$$

An alternative approach to manifolds with singularities would be to remove the singular set and to define an equivalence relation on the remaining manifold that 'remembers' the singularities.

7- Σ -manifolds

An alternative definition can be given. Let (P_1, \dots, P_k) be a (possibly empty) collection of closed manifolds and denote by P_0 the set containing only one point. Then define $\Sigma k = (P_0, P_1, \dots, P_k)$. For a subset $I = \{i_1, \dots, i_q\} \subset \{0, \dots, k\}$ define $P^I = P_{i_1} \times \dots \times P_{i_q}$.

A manifold M is a Σk -Manifold if there is given

1. a partition $\partial M = \partial_0 M \cup \dots \cup \partial_k M$, such that $\partial_I M := \partial_{i_1} \cap \dots \cap \partial_{i_q} M$ is a manifold for each $I = \{i_1, \dots, i_q\} \subset \{0, \dots, k\}$, and such that

$$\partial(\partial_I M) = \bigcup_{j \notin I} \partial_j M \cap \partial_I M$$

1. for each $I \subset \{0, \dots, k\}$ a manifold $\beta_I M$ and a diffeomorphism
- 2.

$$\phi_I: \partial_I M \rightarrow \beta_I M \times P^I$$

such that if $J \subset I$ and $i: \partial_I M \rightarrow \partial_J M$ is the inclusion, then the composition

$$\phi_J \circ i \circ \phi_I^{-1}: \beta_I M \times P^I \rightarrow \beta_J M \times P^J$$

restricts to the identity on the factor P^J in P^I . The diffeomorphisms ϕ_I are called product structures.

On a Σk -manifold M , there is a canonical equivalence relation \sim : two points $x, y \in M$ are defined to be equivalent if there is an $I \subset \{0, \dots, k\}$ such that $x, y \in \partial_I M$ and $pr \circ \phi_I(x) = pr \circ \phi_I(y)$, where $pr: \beta_I M \times P^I \rightarrow \beta_I M$ is the projection. Now we can give a general definition: a manifold with a Σk -singularity is a topological space \bar{A} of the form

$$\bar{A} = A / \sim$$

for a Σk -manifold A .

The spaces defined above as manifolds with a (P_1, \dots, P_k) -singularity are contained in this new definition. Given manifolds P_1, \dots, P_k , set $\Sigma k = (P_0, P_1, \dots, P_k)$. Removing a neighborhood of the cone-tips in a manifold with (P_1, \dots, P_k) -singularity \bar{A} gives a Σk -manifold M . Now the collapsing of the equivalence relation in M corresponds to the re-attachment of the cone-ends.

When dealing with manifolds with singularities it is convenient to work with the underlying Σ -manifold and make sure that all operations one performs on them are compatible with the equivalence relation.



8-Singularities of differentiable mappings:

A branch of mathematical analysis and differential geometry, in which those properties of mappings are studied which are preserved when the coordinates in the image and pre-image of the mapping are changed (or when changes are made which preserve certain supplementary structures); a general approach is proposed to the solution of various problems on degeneration of mappings, functions, vector fields, etc.; a classification is given of the most commonly encountered degenerations, and their normal forms, as well as algorithms which reduce to the normal forms, are determined.

A point of the domain of definition of a differentiable mapping (i.e. a mapping of class C^k , see Differentiable manifold) is said to be regular if the Jacobi matrix has maximum rank at this point, and critical in the opposite case.

The classical implicit function theorem describes the structure of a mapping in a neighborhood of a regular point; in a neighborhood of this point and in a neighborhood of its image, there exist coordinates in which the mapping is linear.

In many cases it is not sufficient to confine the area of study simply to regular points; it is therefore natural to consider the following questions:

(a) the description of a mapping in a neighborhood of a critical point;

(b) the description of the structure of the set of critical points.

For an arbitrary mapping there are no answers to a) and b), for two reasons: In attempting to deal with all mappings, there is no chance of obtaining explicit results (for example, the set of critical points can locally be an arbitrary closed set), and for practical applications it is sufficient to know the answers for only a large set of mappings.

The questions (a) and (b) and many others in the theory of singularities are studied along the following lines:

- i. a set of "untypical" and "pathological" mappings is excluded from consideration;
- ii. a criterion of "typicality" of a mapping is determined;
- iii. it is ascertained that every mapping can be approximated by "typical" mappings;
- iv. the "typical" mappings are studied.

The choice of the set of typical mappings depends on the problem to be solved and is not unique: the fewer the mappings that are typical, the easier they are to study, although 2) and 3) require that the set of typical mappings is sufficiently broad and sufficiently constructively defined.

9-Singularities of Smooth Maps

A singular point of a smooth mapping $f: M \rightarrow N$ of manifolds is a point at which the rank of f is less than the minimum of dimensions of M and N .

Singularities of smooth mappings have a nice classification, with respect to which for almost any smooth mapping f , the set of singular points of any type J forms a smooth sub manifold $S_J(f) \subset M$. We study those topological properties of the set

$S_J(f)$ that does not change under homotopy of f .

One of the first questions that arises in the singularity theory asks whether a singularity type J is in essential for a mapping f ; in other words, does there exist a homotopy of f eliminating all the J -singular points? The primary obstruction is defined as the chorology class $[\overline{S_J(f)}] \in H^*(M; \mathbb{Z}_2)$ dual to the closure of $S_J(f)$. Remarkably, the class $[\overline{S_J(f)}]$ is a polynomial, called Thom polynomial. In Stiefel-Whitney classes of the tangent bundle TM and the induced bundle f^*TN .

The Thom polynomial turns out not to be a complete obstruction; O. Saeki constructed an example of a mapping from a 4-manifold into a 3-manifold where the chorology obstruction corresponding to certain singularities, cusps, is trivial though a homotopy to a general position mapping without cusp singular points does not exist.

We consider smooth mappings of 4-manifolds into 3-manifolds, determine the secondary obstruction, prove its completeness and express it in terms of the chorology ring of the source manifold.

Definition : A general position mapping of a 4-manifold into 3-manifold without cusp singular points is called a fold mapping.

Theorem: For a closed oriented 4-manifold M^4 , the following conditions are equivalent:

- i. M^4 admits a fold mapping into \mathbb{R}^3 ;
- ii. for every orient able 3-manifold N^3 , every homotopy class of mappings of M^4 into N^3 contains a fold mapping;
- iii. there exists a chorology class $\in 2 H^2(M^4; \mathbb{Z})$ such that $x \cup x$ is the first Pontrjagin class of M^4 .

For a simply connected manifold M^4 , we show that M^4 admits no fold mappings into N^3 if and only if M^4 is homotopy equivalent to CP^2 or $CP^2 \# CP^2$.

10-Regular Points of Smooth Mappings

Given a smooth mapping f of a manifold M of dimension m into a smooth manifold N of dimension n , the differential $df(x)$ of the mapping f at a point x of M is a linear map from the tangent space $T_x M$ of M at x to the tangent space $T_{f(x)} N$ of N at $f(x)$,

$$df(x) : T_x M \rightarrow T_{f(x)} N.$$

We say that $x \in M$ is a regular point of the mapping f if the rank $rk_x(f)$ of the differential $df(x)$ is exactly $\max(m, n)$. Otherwise we say that the point x is a singular point of the mapping f .

We observe that the set of regular points forms an open sub manifold of the source manifold. Indeed, if a homomorphism h of vector spaces sends a set $\{e_i\}$ of independent vectors into a set of independent vectors, then every homomorphism sufficiently close to h also sends the vectors $\{e_i\}$ into independent ones.

Consequently, if f is a smooth mapping and x is a point of the source manifold, then the rank of the differential $df(x)$ at x is not greater than the rank of the differential $df(y)$ at any point y sufficiently close to x . In particular, in a small neighborhood of a regular point, the mapping f has no singular points.

The regular points of a mapping have a simple description. In the case of a positive co dimension, $n - m > 0$, the regular points are precisely the points in a neighborhood of which the mapping f is an embedding. If the mapping f is of a non-positive co dimension, i.e., $n - m \leq 0$, then the regular points are the points of the source manifold in a neighborhood of which the mapping f is a submersion.

11-Singular Points of Smooth Mappings

We study singularities of smooth mappings up to an equivalence relation.

Definition. Given two mappings $f_i : M_i \rightarrow N_i$, $i = 1, 2$, we say that the points

$x_1 \in M_1$ and $x_2 \in M_2$ are of the same singularity type with respect to the right left equivalence if there are neighborhoods U_i containing x_i , neighborhoods V_i containing $f_i(x_i)$ and diffeomorphisms

$$g : U_1 \rightarrow U_2, h : V_1 \rightarrow V_2$$

that fit into the commutative diagram

$$\begin{array}{ccc} U_1 & \rightarrow & U_2 \\ \downarrow & & \downarrow \\ V_1 & \rightarrow & V_2 \end{array}$$

where the mappings $f_i|_{U_i}$ are the restrictions of the mappings f_i to U_i .

It is convenient to describe a right-left singularity type, say τ by choosing a normal form, i.e., a mapping $g : \mathbb{R}^m \rightarrow \mathbb{R}^n$ with singularity τ at the origin. Once the normal form is chosen, we say that a mapping $f : M \rightarrow N$ has τ singularity at a point $x \in M$ if in some local coordinate neighborhoods of x in M and $f(x)$ in N , the mapping f has the form g .

In the two subsequent sections we will consider examples of singularities in the cases of mappings of manifolds of small dimensions.



12-Mappings of Surfaces into 3-dimensional Spaces:

One of the singularities of mappings from a surface into a 3-manifold is the Whitney umbrella.

In a neighborhood of a Whitney umbrella, in some coordinates, the mapping f has the form

$$f(u, v) = (uv, u, v^2).$$

Theorem: 1.1 (Whitney) Every mapping of a surface into a 3-manifold can be approximated by a mapping with singularities of only Whitney umbrella type.

The set of Whitney umbrellas is a discrete set. In particular, a mapping of a closed surface may have only finitely many Whitney umbrellas.

In fact, the number of Whitney umbrellas is even. To prove this, we describe the Whitney umbrellas as the end points of self-intersection curves. If the source surface is closed, then each connected component of self-intersection points is either a circle which has no end points or a closed interval which has two end points. Thus the number of Whitney umbrellas is twice the number of closed intervals of self-intersection points.

If we consider mappings up to homotopy, then the Whitney umbrellas are no longer essential; every mapping of a surface into a 3-manifold is homotopic to an immersion. This follows from the Smale-Hirsch h-principle for immersions, which we will discuss in later sections.

13-Mappings Between Surfaces

Singularities of mappings between surfaces were studied by Whitney who proved that every continuous mapping of surfaces can be approximated by a mapping with only regular points, fold singular points, and cusp singular points.

A regular point of a mapping f , as it has been defined, is a point in a neighborhood of which the mapping f is a diffeomorphism.

The fold and cusp singular types are defined by normal forms. We say that a singular point p is of the fold type or the cusp type if in some neighborhoods of p and $f(p)$ there are coordinates in which the mapping f has the form

$$f(x, y) = (x, y^2) \text{ or } f(x, y) = (x^3 + xy, y)$$

respectively. As it follows from the normal forms of singularities, the set of singular points S of a mapping f with only fold and cusp singular points forms a smooth curve in the source manifold. The set of cusp points is discrete, while the set of fold points is the 1-dimensional complement to the cusp points in S .

We note that the rank of the differential of the mapping f is 1 both at a point of the fold type and at a point of the cusp type. To distinguish a fold singular point from a cusp singular point, Whitney considered the restriction of the mapping f to the smooth curve of singular points S and observed that the cusp points of f are exactly the singular points of $f|_S$.

The cusp singular points are essential even if we consider mappings up to homotopy. For example, the projective plane \mathbb{RP}^2 does not admit a mapping into \mathbb{R}^2 with only fold singular points.

Let us sketch a proof that motivates the notion "homology obstruction." We note that any two mappings into \mathbb{R}^2 are homotopic. Thus to prove the claim it suffices to construct a mapping $\mathbb{RP}^2 \rightarrow \mathbb{R}^2$ with fold and cusp singularities and then to show that the cusp singular points can not be eliminated by homotopy.

14-Types of Singularities

The right-left equivalence relation on singularities of smooth mappings is so fine that the number of different singularity types of a mapping is infinite in general. Besides, the behavior of the set of points of a right-left equivalence class under homotopy of a mapping has no simple description.

To overcome the difficulties arising here one may consider a coarser relation in which a class of equivalence is a union of some, perhaps infinitely many, right-left equivalence classes of singularities. One of such relations playing a special role in singularity theory is the Thom-Boardman classification.

Every continuous mapping of smooth manifolds admits an approximation by a mapping f with singularities of only finitely many different Thom-Boardman classes. Furthermore, the set of singular points of f of each Thom-Boardman class is a sub manifold of the source manifold.



14.1- Naive Definition

Let TM and TN denote the tangent bundles of smooth manifolds M and N respectively and df the differential of a smooth mapping $f: M \rightarrow N$. The set $S_i = S_i(f)$ is defined as the set of points x in M at which the kernel rank of f is $\text{kr}_x f = i$. Suppose that $\dim M = m \geq n = \dim N$.

Suppose that for each i , the set S_i is a sub manifold of M , then we can consider the restriction $f|_{S_{i1}}$ of f to S_{i1} and define the singular set $S_{i1,i2}$ as the subset $S_{i2}(f|_{S_{i1}})$ of S_{i1} . Again, if every set $S_{i1,i2}$ is a sub manifold of M , then the definition may be iterated. Thus, the set $S_{i1,\dots,ik}$ is defined by induction as $S_{ik}(f|_{S_{i1,\dots,ik-1}})$. The index $j = (i_1, \dots, i_k)$ is called the symbol of the singularity. We will write S_j for $S_{i1,\dots,ik}$.

For example the Whitney fold singular points of a mapping between surfaces and the Whitney umbrella of a mapping of a surface into a 3-manifold are Thom-Boardman singular points of the type $S_{1,0}$. From the Whitney description of singular points of a mapping between surfaces, it follows that the cusp singular points are of the type $S_{1,1,0}$.

Certainly, this natural definition makes sense only under heavy restrictions;

the singular set $S_{i1,\dots,ik}$ can be defined only if the singularity stratum $S_{i1,\dots,ik-1}$ is a sub manifold of the source manifold. By passing to jet spaces Boardman was able to extend the definition over all singular sets.

14.2 -Finite Jet Space

A singularity type of a mapping $f: M \rightarrow N$ at a point $x \in M$ depends on the behavior of the mapping f only in a small neighborhood of x . So, we pass to germs. A germ at a point $x \in M$ is an equivalence relation on mappings under which two mappings f_i , $i = 1, 2$, defined on a neighborhood of $x \in M$ represent the same germ at x if there is a possibly smaller neighborhood of x where the mappings f_1, f_2 coincide.

A k -jet is, by definition, a class of $\sim k$ -equivalence of germs. Two germs f and g at x are $\sim k$ equivalent if at the point x the mappings f and g have the same partial derivatives of order $\leq k$. As partial derivatives involved, our definition implicitly assumes coordinate systems in neighborhoods of x and $f(x) = g(x)$. It is easy to verify, however, that if in some coordinate systems f and g have the same partial derivatives of order $\leq k$, then the same is true for any other choice of the coordinate systems.

If a k -jet α_x is represented by a mapping f at x , then we also say that α_x is a k -jet of the mapping f at x .

The set of all k -jets $J^k(M, N)$ is called the k -jet space of mappings of M into N . Let α_x be a k -jet at a point $x \in M$ represented by some mapping f .

If a coordinate system in a neighborhood of x and a coordinate system in a neighborhood of $f(x)$ are fixed, then the k -jet α_x is determined by the Taylor polynomial of f at x of order k . In its turn, the set of polynomials of order k is naturally isomorphic to the finite dimensional Euclidean space as each polynomial characterized by the set of its coefficients. So, the k -jet space has a natural structure of a smooth manifold.

Formally, let u and v be coordinate covers of the manifolds M and N respectively. For each open set $U \in u$ and an open set $V \in v$ we define a subset W_{UV} of the k -jet space as the set of the jets α_x , $x \in U$, represented by mappings sending x into V . Note that the subsets $W = \{W_{UV}\}$, where U and V range over elements of u and v , cover the space of k -jets. Also, being isomorphic to the set of polynomials of order k , each of W_{UV} is isomorphic to a Euclidean space.

These isomorphism induce topologies, one for each W_{UV} , that coincide on intersections

$$W_{UV} \cap W_{U'V'}, U' \in u, V' \in v$$

Thus there is a natural topology on $J^k(M, N)$. Moreover, the cover W together with homeomorphisms from W_{UV} into the Euclidean space, $U \in u, V \in v$ defines a smooth structure on $J^k(M, N)$.

In fact the cover w not only helps to introduce a smooth structure on $J^k(M, N)$ but also allows us to introduce on $J^k(M, N)$ a structure of a smooth locally trivial bundle over $M \times N$. Indeed, $J^k(M, N)$ is covered by the sets $W_{UV} \in w$ each of which is a trivial bundle over $U \times V$. We note that the bundle projection

$$J^k(M, N) \rightarrow M \times N$$

sends a k -jet α_x represented by a mapping f into the point $x \times f(x)$.

14.3- Infinite Jet Space

A k -jet at a point x determines an l -jet for each $l < k$. Thus for each pair k, l with $l < k$ we have a natural projection

$$\pi_l^k: J^k(M, N) \rightarrow J^l(M, N)$$

The jet space $J^\infty(M, N)$ is a topological space defined as the inverse limit of the system $\{J^k(M, N), \pi_l^k\}$, though the jet space is infinite dimensional and we cannot define a smooth structure on $J^\infty(M, N)$, still, using projections

$$\pi_k^\infty: J^\infty(M, N) \rightarrow J^k(M, N)$$

we may define on $J^\infty(M, N)$ smooth functions, tangent vectors and submanifolds.

We say that a function on the jet space is smooth if locally it is the composition of the projection onto some k -jet space and a smooth function on the k -jet space. Having defined smooth functions we may define a tangent vector at a jet α .

The set of germs $\mathcal{F}(\alpha)$ of functions on $J^\infty(M, N)$ at the jet α is an algebra over \mathbb{R} .

A differential operator D_α at α is a correspondence

$$D_\alpha: \mathcal{F}(\alpha) \rightarrow \mathcal{F}(\alpha)$$

that is linear, i.e.,

$$D_\alpha(af + bg) = aD_\alpha(f) + bD_\alpha(g), \quad f, g \in \mathcal{F}(\alpha), \quad a, b \in \mathbb{R},$$

and satisfy the Leibniz rule

$$D_\alpha(fg) = D_\alpha(f)g + fD_\alpha(g), \quad f, g \in \mathcal{F}(\alpha)$$

We define a tangent vector at the jet α as a differential operator D_α . We may view a vector D_α as an infinite sequence of vectors $D_{\alpha k}$, $k \in \mathbb{N}$, respectively tangent to the jet spaces $J^k(M, N)$ at $\pi_k^\infty(\alpha)$ such that

$$(\pi_l^k)_*: D_{\alpha k} \rightarrow D_{\alpha l} \quad k > l \dots (2.1)$$

Indeed, let α_k denote the k -jet $\pi_k^\infty(\alpha)$

By definition of $\mathcal{F}(\alpha)$,

$$\mathcal{F}(\alpha) = \bigcup_{k \in \mathbb{N}} \mathcal{F}(\alpha_k)$$

where each $\mathcal{F}(\alpha_k)$ is identified with a subset of $\mathcal{F}(\alpha_{k+1})$ under the mapping induced by the projection $\mathcal{F}(\alpha_{k+1}) \rightarrow \mathcal{F}(\alpha_k)$. Given a vector D_α , its restrictions to $\mathcal{F}(\alpha_k)$ produce a sequence of operators $D_{\alpha k}$.

14.4 - Thom-Boardman Singularities

Given a smooth mapping $f: M \rightarrow N$, at each point of the manifold M we have an infinite jet of f . The correspondence that takes a point x into the jet of f at x is a mapping

$$j f: M \rightarrow J^\infty(M, N),$$

called the jet extension of f . Similarly for each k , we define the k -jet extension $j^k f$ of f . If v is a vector at a point x of M , then the sequence of vectors $d(j^k f)(v)$ satisfies the condition 2.1 and therefore defines a vector $d(j f)(v)$ at $j f(x)$.

Note that the map

$$d(j f): TM \rightarrow TJ^\infty(M, N)$$

is injective. The union of images of $d(j f)$ over all mappings $M \rightarrow N$ is called the total tangent bundle of the jet space and is denoted by D . Given a jet $j f(x)$, we will use the injective homomorphism $d(j f)|_{T_x}$ to identify the plane $T_x M$ with $D|_{j f(x)}$.



Every 1-jet at a point $x \in M$ determines a homomorphism

$$T_x M \rightarrow T_{f(x)} N,$$

where f is a germ at x representing the jet. Let y be a point of the jet bundle and $K_y \subset D_y$ the kernel of the homomorphism defined by the 1-jet component of y .

Boardman proved that for every i_1 the set

$$\sum_{i_1} = \{y \in j^\infty(M, N) \mid \dim K_y = i_1\}$$

is a sub manifold of $j^\infty(M, N)$. Let j^r denote the set of r integers (i_1, \dots, i_r) such that $i_1 \geq \dots \geq i_r$. Suppose that the sub manifold $\sum_{j^{r-1}}$ has been already defined.

Then define

$$\sum_{j^r} = \{y \in \sum_{j^{r-1}} \mid \dim(k_y \cap T \sum_{j^{r-1}}) = i_r\}$$

Boardman proved that for every symbol j^r the set \sum_{j^r} is a submanifold of $j^\infty(M, N)$.

A mapping f is called a general position mapping if the section $j f$ is transversal to every sub manifold \sum_{j^r} . By the Thom Strong Transversality Theorem every mapping can be approximated by a general position mapping.

Given a mapping $f: M \rightarrow N$, a point $x \in M$ is a singularity of type I if the image $j f(x)$ is in \sum_{j^r} . As has been mentioned, for general position mappings, the definition of singularity types given by Boardman coincides with the naïve definition given in section 3.14.1.

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THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY (CSR) ON CUSTOMER LOYALTY: A BIBLIOMETRIC ANALYSIS BETWEEN 2009-2020

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ABSTRACT

Customer loyalty has a noticeable impact on the long-term health of businesses. Hence, with the rise of consumers' awareness, corporate social responsibility (CSR) is essential in consumer behavior, specifically in attracting and retaining customers. This paper try to explore the link between corporate social responsibility (CSR) and customer loyalty based on a bibliometric analysis of 56 indexed articles between 2009 and 2020. First, the leading journals and countries in the field were identified. Subsequently, a citation analysis coupled with content analysis of the 16 most cited articles was performed. The challenge was to find out the clusters' divergence in a pinpointed topic. Accordingly, two main research streams were identified based on their mediating variables: (1) mediating effects related to consumer behavior; (2) mediating effects related to the brand. For future researchers, a future agenda was retrieved from the most influential and recent papers in the field to contribute to advancing the existing knowledge.

KEYWORDS: Corporate Social Responsibility, Customer Loyalty, Literature Review, Bibliometric Analysis, Content Analysis.

1. INTRODUCTION

In the existing context of the COVID-19 pandemic, businesses are becoming challenged with gaining customers' confidence. Companies learned now more than ever before the importance of retaining their customers and its impact on their businesses' long-term health. The shift in consumer behavior is tremendous. Customer demand was reconsidered and changed from discretionary products and services to essential ones. In the same way, customers started to require ethical and philanthropic actions toward the community over the price. However, socially responsible companies significantly start to overcome the profound crisis. The use of CSR actions is nowadays a promising path toward customer loyalty.

Considering that customer loyalty directly impacts companies' profits (Edvardsson et al. 2000) and

that CSR actions impact customer loyalty and purchase intentions (Sen et al. 2006), it is, therefore, crucial to confirm it through previous studies. CSR and customer loyalty are critical issues in the literature, as CSR actions are incredibly beneficial for companies (Palacios-Florencio et al., 2018). In this context, a need to compile the literature on this topic systematically is required. This paper aims to analyze thoroughly the highly reviewed scientific articles regarding the relationship between CSR and customer loyalty.

A bibliometric review based on a literature analysis of 11 years (See Figure 1) addresses the subsequent questions: (1) What are the most influential journals and countries that address this topic? (2) What are the main clusters in the literature of CSR and customer loyalty? (3) What are the relevant future research questions extracted from the influential and trending articles in the literature?

Consequently, to answer the research questions, this paper is organized in three main sections: section 1

DESCRIPTIVE ANALYSIS for influential aspects of the literature, section 2 **'CLUSTER ANALYSIS'** for the quali-quantitative analysis of research streams. Finally, section 3, **'FUTURE RESEARCH AGENDA'** to shed new light on future researcher

Figure 1 shows that the most influential articles were published in 2013 and 2015 and that the peak in terms of publications was in 2017 and 2019, with 11 articles each year.

Figure 1: Evolution of the number of publications and citations

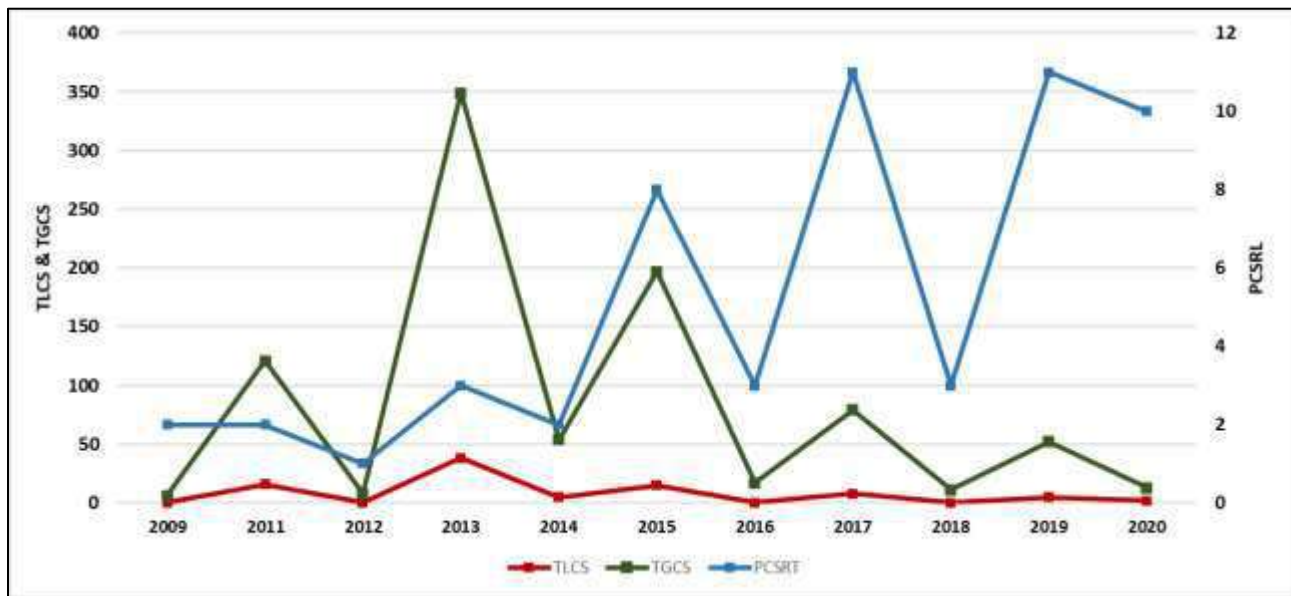


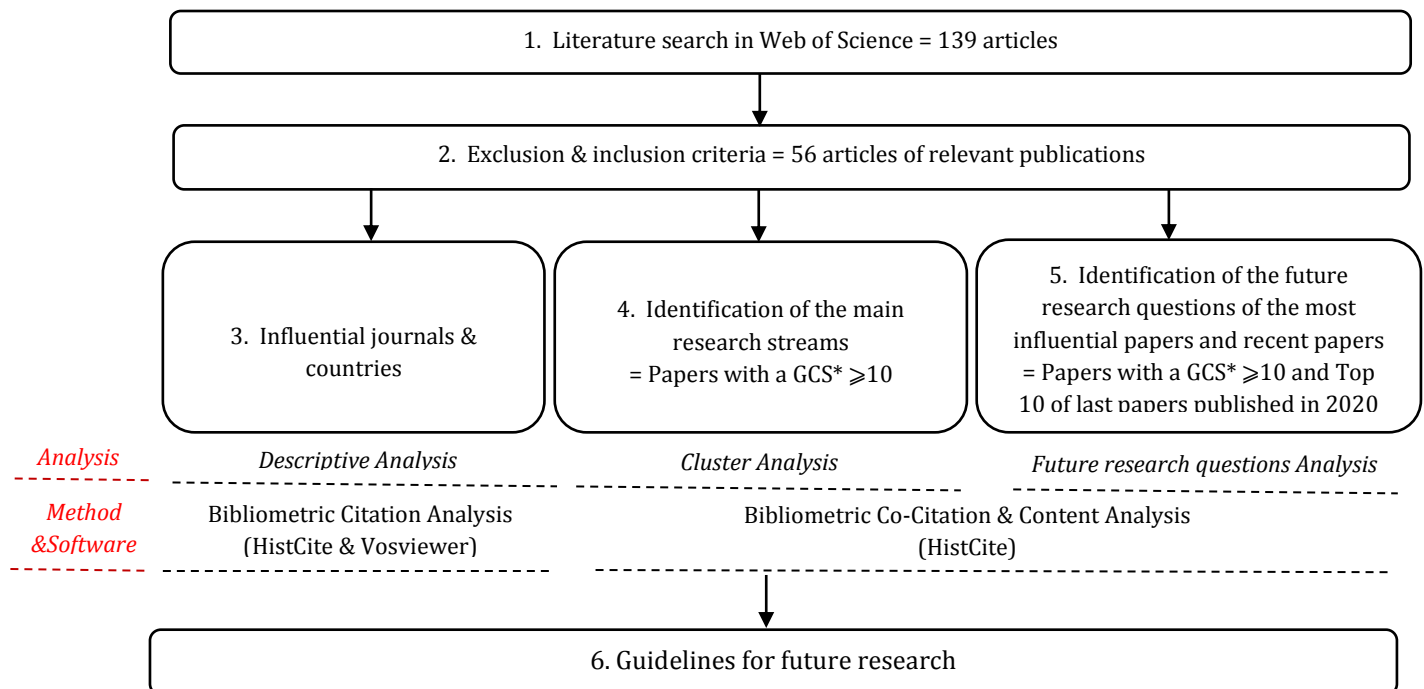
Table 1: Terminology used in this paper

Term	Explanation
PCSRL	The number of articles on CSR and customer loyalty in our bibliometric research.
TLCs	Total Local Citations Score is the number of times a paper is cited by other papers within the sample (56).
TGCS	Total Global Citations Score is the number of times a paper is cited by other papers in the whole WoS database.

2. METHODOLOGY

Figure 2 summarizes the methodology used in this paper.

Figure 2. Research Methodology



* For more details about LCS and GCS see

2.1. Data collection method

The research was done on ISI Web of Science, a high-quality database that covers 161 million records and 34,000 indexed journals, according to Clarivate's official website. Our study used Web of Science Core Collection, where cited references for all publications are indexed. To identify only the relevant papers, our search strategy was based on a structured data collection method consisting of both exclusion and inclusion criteria.

The search process used a three-step rigorous approach:

- The search in the 'topic' section, including titles of articles, their abstracts, and keywords, was defined by two keywords 'Corporate social responsibility' and 'Customer loyalty' (139). It was then restricted to only scientific articles written in English (118).
- The research areas were limited to 'Business Economics' and 'Social sciences, other topics' Business Economics and Environmental (95).
- To keep the study focused, the search was explicitly limited to CSR rather than related terms such as sustainable development. In addition to that, we excluded articles referring to only one component of CSR, like philanthropy. The data collected was then analyzed by reviewing the Titles, Abstracts,

and Keywords (56). The papers were then collected and extracted for bibliometric analysis.

2.2. Data collection analysis

The literature review has an essential role in scientific research. It aims at synthesizing literature relevant to a specific research question by producing a qualitative appraisal. Identifying the research streams of CSR can be performed using a bibliometric analysis (Lulewicz-Sas, 2017). Accordingly, a bibliometric analysis and content analysis was carried out. Bibliometric analysis is a statistical analysis based on the quantitative analysis of scientific publications. In the 'DESCRIPTIVE ANALYSIS' section, we used citation analysis to identify the most influential journals in the field and the papers' countries of origin. The citation analysis is a significant indicator used to measure a publication's influence by other scientific productions. For the 'CLUSTER ANALYSIS' section, we combined a citation analysis with content analysis. A content analysis gathers co-occurrences and co-absences keywords and thus identify fundamental themes (Ronda-Pupo and Guerras-Martin, 2012). A content analysis was carried out for the last section, 'FUTURE RESEARCH AGENDA.' We opted for Vosviewer and HistCite software to visualize and process the data.



3. DESCRIPTIVE ANALYSIS

3.1. Influential journals

Table 2: Journals outlets

Rank	Journals 1	PCSRL	% of total publications	Journals 2	TLCS	TLCS/t
1	Social responsibility journal	14	25%	Journal of services marketing	34	4.18
3	Sustainability	12	21%	International journal of hospitality management	28	3.5
3	Cogent business & Management	11	20%	Journal of business ethics	5	2.83
4	Journal of business ethics	10	18%	Social responsibility journal	5	1.25
5	Journal of services marketing	9	16%	Service industries journal	4	0.57
6	Corporate social responsibility and environmental management	7	13%	Asia pacific journal of marketing and logistics	2	1
7	Social behaviour and personality	5	9%	Corporate social responsibility and environmental management	2	0.33

The analysis of the journal outlets was represented in two different categories, according to the PCSRL and TLCS. These measures show the journal focus and influential journals on the research.

As given in Table 2, the most productive (PCSRL) and impactful journals (TLCS) are social responsibility journal, journal of business ethics, journal of services marketing, corporate social responsibility, and environmental management. Within

the 42 journals analyzed, various areas discuss the topic, which shows the interdisciplinarity of the field (i.e., management, psychology, marketing). Also, this indicates that the research has been tested in different sectors.

3.2. Countries

Figure 3: Citation network of author's countries

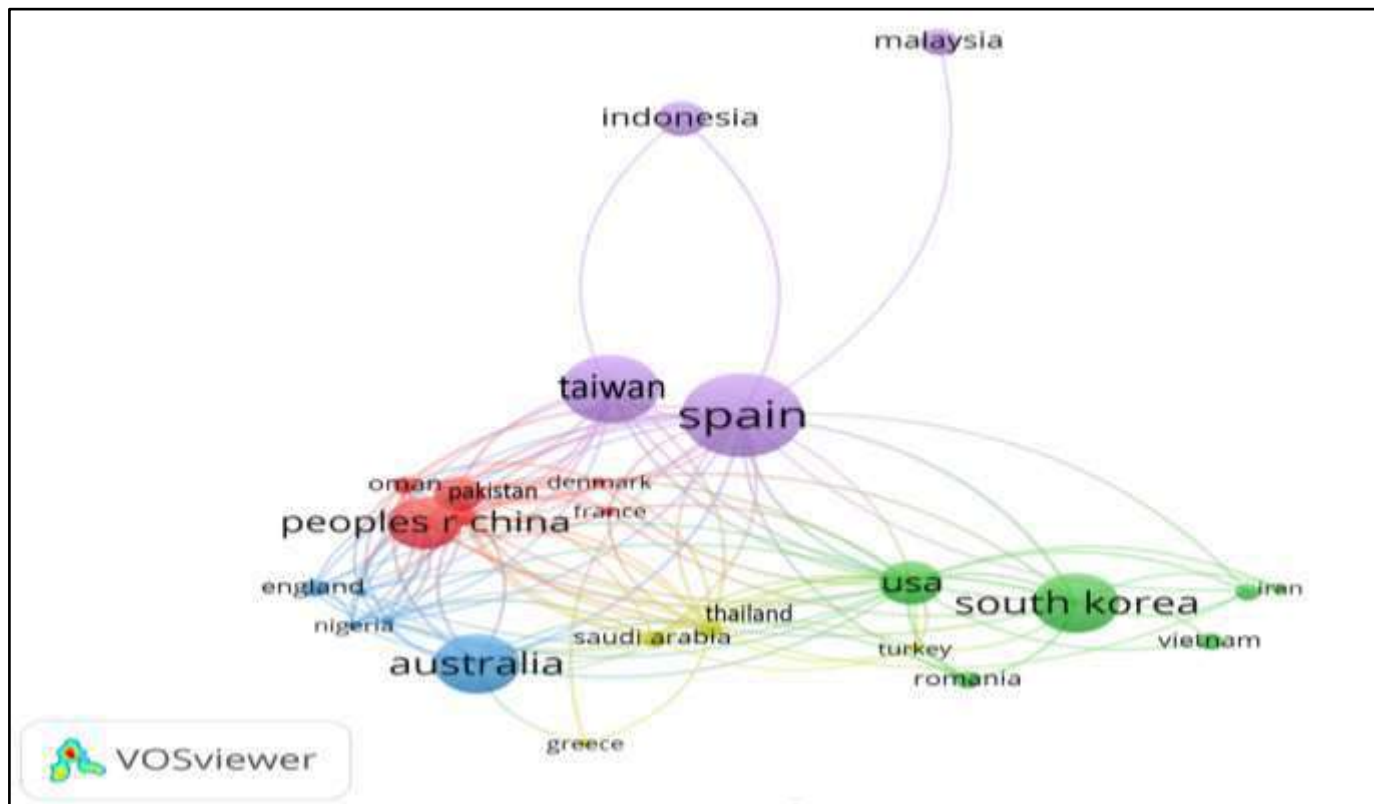


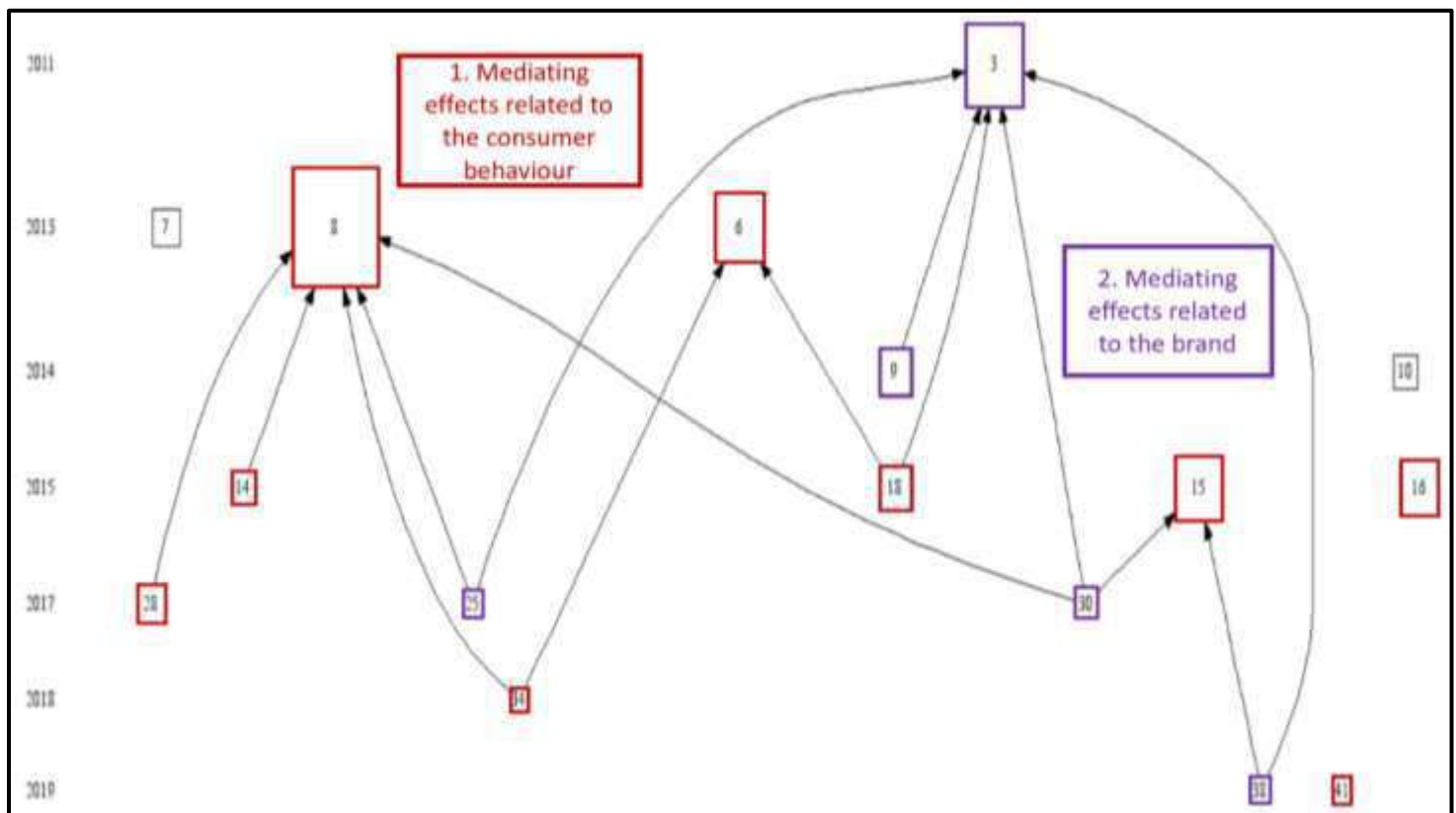
Figure 3 reveals the countries that stand out in terms of production in CSR and customer loyalty literature. The most productive countries are Spain, Taiwan, Australia, South Korea, China, and the USA. This is understandable given the importance of CSR in those countries.

Our results cast a new light on developing countries like Pakistan, Iran, Nigeria, Oman, and Saudi Arabia. Azmat and Ha (2013) stated that developing

nations are home to almost half of the world's consumers. The developing nations reveal the emergence of a new significant interest in CSR and its impact on customer loyalty. This shows that customers in developing countries are becoming more aware of their rights than before. This trend is now becoming a challenge for companies to establish a CSR strategy within the core of their business.

4. CLUSTER ANALYSIS

Figure 4: Citation mapping of the most influential articles in the field



Note: **Cluster 1: Mediating effects related to consumer behavior (Article Identification):** (8). Martinez and del Bosque (2013), (14). Yeh (2015), (28). Inoue et al., (2017), (34). Palacios-Florencio et al., (2018), (6). Choi and La (2013), (18). Shin and Thai (2014), (15). Pérez and del Bosque (2015), (41). Li et al., (2019), (16). Pérez and del Bosque (2014). **Cluster 2: Mediating effects related to the brand (Article Identification):** (3). Mandhachitara and Poolthong (2011), (9). Liu et al., (2014), (25). Gürlek et al., (2017), (30). Chang and Yeh (2017), (38). Aramburu and Pescador (2017).

As given in Figure 4, the 'Graph Maker' tool of HistCite allows us to produce a mapping that reveals the way articles refer or build on to each other. The most influential contributions (leading papers with at least a score of 10 global citations ($GCS \geq 10$) of the literature review are presented below. This resulted in a co-citation analysis of 16 articles. The most cited articles are the papers published by Martinez and del Bosque (2013), Mandhachitara and Poolthong (2011), Choi and La (2013), Pérez and del Bosque (2015) and Pérez and del Bosque (2014).

The two identified clusters were based on a bibliometric co-citation and a traditional detailed content analysis of all the articles presented in each group. As this analysis's topic is pinpointed and the same discussed by all the authors, the papers were

clustered build on their mediating variables. The articles were then classified into two distinct clusters: *mediating effects related to consumer behavior* and *mediating effects related to the brand*. A summary of the main contributions is presented below in each cluster according to their yearly chronological order. Moreover, it should be noted that all of the publications used the structural equation model except Liu et al., 2014, Chomvilailuka and Butcher (2014), who used regression analysis and Li et al., (2019), who used an experimental study.

Cluster 1: Mediating effects related to consumer behavior

The articles within this research stream deal with consumer behavior's mediating variables and their



prominent role in explaining the relationship between perceived CSR and customer loyalty.

One of the main contributions of the literature of CSR in general and its relationship with customer loyalty, in particular, is the publication of Martinez and del Bosque (2013). The authors presented trust, satisfaction, and customer identification with the company as mediators. Spanish hotel consumers confirm that socially responsible companies contribute to the trustworthiness, identification, and satisfaction toward these companies. However, corporate identity management is crucial for companies as perceived CSR indirectly impacts loyalty via those three mediators. In the same vein, Choi and La (2013) introduced customer trust as a mediating variable in examining perceived legal and ethical dimensions of CSR on customer satisfaction, trust, and loyalty after a service failure. The study was generalized to various service-types in the USA. Perceived CSR has a direct effect on loyalty and an indirect impact on loyalty through customer trust. Indeed, CSR is a vital component while restoring customer loyalty.

Moving to the shipping industry, Shin and Thai (2014) confirmed the positive impact of CSR's perceived ethical and environmental dimensions on customer satisfaction and then relationship maintenance and later customer loyalty. CSR reports are considered a powerful marketing tool in this service context that may lead to customer loyalty if the mediators are confirmed. In the same year, Pérez and del Bosque (2014) examined the topic through two paths for the Spanish banking service. First, the authors confirmed the positive impact of perceived CSR on customer-company identification, the company's emotions, and thus customer satisfaction. Second, the company's emotions in the first path positively impact the emotions derived from the service, which in turn positively impacts customer satisfaction. Subsequently, in both ways, customer satisfaction influences behavioral loyalty.

One year later, Pérez and del Bosque (2015) examined the impact of three CSR components related to employees, society, and customers on savings and commercial banks' customers' behavior in Spain.

Customer satisfaction was a critical variable for the relationship between CSR and loyalty with the company's type as a moderator. The findings confirmed that CSR image impacts customers' affective dimension (customer satisfaction and customer-company identification). Subsequently, through the affective dimension, the conative component is positively impacted (customer recommendation and repurchase behaviors). Regarding the customer dimension of CSR image, no difference exists between the two types of banks on the affective component. For the society and employees' dimension of CSR image,

savings banks' customers respond positively. Further, the employee dimension is the least significant on the affective part for both banks' types. Another contribution is the vital significance of affective variables on customer repurchase for commercial than savings banks' customers.

Moreover, Yeh (2015) investigated the wealth management customers in Taiwan regarding the impact of CSR and service innovation on customer loyalty through three different mediators: customer advocacy, relationship value, and relationship quality. The findings revealed that CSR and service innovation positively impact customer advocacy. Subsequently, customer advocacy positively impacts relationship quality and value, which in turn leads to customer loyalty. From his side, Inoue et al. (2017) introduced the involvement and commitment of customers' Australian professional football team as mediators. It was found that involvement positively mediates the relationship between the two constructs. However, this relationship is significant but not robust. On the opposite, commitment negatively mediates the relationship between involvement and behavioral loyalty. In other words, customer commitment is rather beneficial in the long run (i.e., word of mouth) than in the short-run (instant product sales).

In 2018, Palacios-Florencio et al. presented trust as a critical determinant mediator. The survey on Spanish hotels guests shows that the more the company is committed to socially responsible activities, the greater is the customers' image toward those hotels. However, CSR significantly impacts trust, which in turn positively influences customers' image and loyalty.

Li et al. (2019) examined a different CSR plan area – the approach of renewing a company's CSR strategy. The case study of Starbucks in China was used to explore customer-company identification as a mediator and brand reputation as a moderator in the relationship between renewed CSR strategy and customer loyalty. The findings were different in terms of the brand's strength. For strong brands, CSR renewal strategy increases customer-company identification with a moderating role of brand reputation and improves customer loyalty. Quite the opposite for weak brands; not changing CSR actions positively impact customer loyalty. This is mainly due to the customers' perceptions of CSR activities. In fact, the CSR renewal plan is perceived as based on altruism for strong brands and based on self-interest for weak brands.

Cluster 2: Mediating effects related to the brand

The articles within this research stream deal with the brand's mediating variables and their central role in explaining the relationship between perceived CSR and customer loyalty. Liu et al. (2014) introduced



brand preference as a mediator in Macau's casino industry. The findings revealed the perception of two CSR dimensions (stakeholders & society) that positively impact customer loyalty through a partial mediation of brand preference. Furthermore, the stakeholder-oriented actions of CSR have a significant effect on customers' brand preferences. Another critical contribution related to the brand as a mediator is the perceived service quality. Mandhachitara and Poolthong (2011) confirmed the positive impact of this mediator in Thailand's retail banking sector. Also, the direct influence between CSR and behavioral loyalty does not exist.

Moreover, corporate image constitutes the central part of this cluster. The study on Taiwan's intercity bus sector performed by Chang and Yeh (2017) showed that CSR would have no direct impact on customer loyalty with the absence of a mediator. Accordingly, customer satisfaction and, more particularly, corporate image significantly and positively mediate the relationship between CSR and customer loyalty.

Similarly, Gürlek et al. (2017) examined corporate image mediation in independent Turkish hotels. Partial mediation is confirmed through

corporate image. Consequently, CSR actions should be broadcasted through advertising tools such as the media to enhance customer loyalty via socially responsible activities. The last variable within this research stream is corporate reputation. Aramburu and Pescador (2017) validated its partial mediation in the banking industry of the Basque country. The moderation variable of the bank's type seems to have no impact on the mediation.

5. FUTURE RESEARCH AGENDA

To obtain an overview of the issues not addressed by the most influential papers of CSR's literature with customer loyalty, a review of the 16 top-cited papers was identified. In addition to the articles that create the citation map in Figure 4, the top ten of the most recent papers were also addressed.

The most important contributions of the first, second, and no cluster with a score of at least ten global citations ($GCS \geq 10$) published between 2011–2019 were identified respectively in Table 3, Table 4, and Table 5.

Furthermore, the ten emerging articles published in 2020, receiving few or no citations were also depicted and presented in Table 6.



Table 3: Cluster I- Future research questions

Reference	Sample & Country	Sector	Future Research Questions
Yeh (2015)	527 wealth management customers in Taiwan	Wealth service (banking industry)	<ul style="list-style-type: none"> • Generalize the findings to larger samples or other contexts/sectors. • Include the effects of new service model development abilities for making CSR & service innovation. • Include the effects of a new service mindset to create customers' advocacy. • Consider other variables (i.e., perceived quality).
Inoue et al. 2017	634 customers of an Australian professional football team	Professional sport (football)	<ul style="list-style-type: none"> • Generalize the findings to other segments/industries. • Use other measures of behavioral loyalty. • Test supplementary mediators, along with the ones identified in the study. • Use different data collection.
Choi and La (2013)	371 undergraduate business students from a mid-sized west coast university of USA	Different service types	<ul style="list-style-type: none"> • Test the link between 3 aspects of CSR and other constructs (i.e., such trust). • Explore the link between perceived CSR and customer trust. • Consider other methods (i.e., experimental) / longitudinal studies. • Test the impact of initial trust and loyalty after service failure and recovery.
Shin and Thai (2014)	1000 shippers and freight forwarders in South Korea	Shipping industry	<ul style="list-style-type: none"> • Generalize the findings to other sectors/countries. • Consider all CSR components. • Differentiate between CSR non and implementing shipping firms and between shippers and freight forwarders.
Pérez and del Bosque (2014)	1,124 spanish customers in banking services	Banks	<ul style="list-style-type: none"> • Consider each of the CSR dimensions on customer responses separately. • Test the influence of perceived CSR and perceived corporate ability in explaining customer satisfaction and loyalty. • Include other variables for the study (i.e., service quality, information quality).
Palacios-Florencio et al. (2018)	629 guests in four international hotels in Spain	Hotel	<ul style="list-style-type: none"> • Find out how the level of CSR awareness impact customer loyalty and image. • Study causal mechanisms in social and behavioral sciences. • Generalize the findings to other sectors/countries. • Consider different segments (i.e., drifters). • Perform a longitudinal study.
Pérez and del Bosque (2015)	648 savings banks' customers : 476 commercial banks' customers	Banks	<ul style="list-style-type: none"> • Generalize the findings to other sectors/countries.
Li et al. (2019)	154, 50 and 101 participants respectively in experiment one, two and three.	Coffee shop industry	<ul style="list-style-type: none"> • Perform a longitudinal study. • Generalize the findings to other sectors/countries. • Test different organizational behaviour variables/consumer characteristics.
Martínez and del Bosque, 2013	382 hotels customers in Spain	Hotels	<ul style="list-style-type: none"> • Generalize the findings to other sectors/countries. • Test different social exchange variables and different antecedents of customer loyalty. • Use other conceptual frameworks. • Test the two components of loyalty separately (attitudinal and behavioural).



Table 4: Cluster II-Future research questions

Reference	Sample & Country	Sector	Future Research Questions
Mandhachit ara and Poolthong (2011)	275 bank customers in Thailand	Bank	<ul style="list-style-type: none"> • Test the proposed relationship model using other loyalty measurements tool. • Test other mediators (trust, satisfaction, commitment).
Liu et al., 2014	616 among casinos players in China	Casino	<ul style="list-style-type: none"> • Use a sample of six major casinos that represent traditional and integrated casinos. • Generalize the findings to other hospitality firms / industries/cultures. • Expand the model and include new variables.
Aramburu and Pescador (2017)	572 personal surveys in the Basque country	Bank	<ul style="list-style-type: none"> • Test the impact of specific component related to corporate reputation on customer responses. • Perform a longitudinal study. • Perform a qualitative study in explaining the link between attitudinal loyalty and sustainability. • Generalize the findings to other countries.
Chang and Yeh (2017)	349 customers of bus services in Taiwan	Bus services	<ul style="list-style-type: none"> • Generalize the findings to other sectors. • Study the impact of CSR on customer loyalty in different transport modes and passenger groups.
Gürlek et al.(2017)	404 of hotels customers in Turkey	Hotel	<ul style="list-style-type: none"> • Generalize the findings to larger samples and other independent hospitality firms. • Use public relations tools such as corporate advertising could be used as mediators between CSR and corporate image. • Use customer satisfaction as a mediator between corporate image and customer loyalty. • Use moderators such as the type of customer and the nationality.

Table 5: No Cluster-Future research questions

Reference	Sample & Country	Sector	Future Research Questions
Azmat and Ha (2013)	No sample & case study of Bangladesh	Food Supply chain	<ul style="list-style-type: none"> • Check the conceptual model. • Test different CSR dimensions.
Chomvilalluka and Butcher (2014)	204 bank consumers in Australia	Banks	<ul style="list-style-type: none"> • Generalize the findings to more significant samples



Table 6: Recent papers -Future research questions

Reference	Sample & Country	Sector	Future Research Questions
Kim et al. (2020)	200 consumers who consumed airline services in South Korea	Airline	<ul style="list-style-type: none"> • Measure the carrier type as a continuous variable. • Test variables impacting income indirectly like occupation. • Generalize the findings to other countries. • Cover all or different seasons.
Mariño-Romero et al. (2020)	230 hotel managers in Spain	Hotel	<ul style="list-style-type: none"> • Generalize the findings to a larger sample and other countries/industries. • Consider other CSR variables (quality, image).
Iglesias et al. (2020)	1101 customers in Spain	Health insurance services	<ul style="list-style-type: none"> • Generalize the findings to other countries/industries. • Perform a qualitative study. • Test behavioral measures, in addition to attitudinal ones. • Assess brand outcome variables like brand equity.
Raza et al. (2020)	280 banking customers in Pakistan	Bank	<ul style="list-style-type: none"> • Generalize the findings to other sectors/countries. • Perform a longitudinal study. • Use other variables, such as perceived service quality, commitment, and satisfaction. • Use leadership style as a moderator in explaining the link between CSR and co-creation. • Use demographic variables (age, gender, education) as moderators in the relationship between CSR and loyalty.
Chen (2020)	466 customers in Taiwan	Real estate brokerage	<ul style="list-style-type: none"> • Generalize the findings to a national basis. • Perform a longitudinal study. • Explore the impact of CSR on sales ethics.
Qumawan (2020)	257 customers of bottled drinking water in Indonesia	Agro-industry	<ul style="list-style-type: none"> • Perform a longitudinal study. • Use other stakeholders in the study.
Osakwe et Yusuf (2020)	435 retail bank customers in Nigeria	Retail bank	<ul style="list-style-type: none"> • Generalize the findings to other contexts. • Perform a longitudinal study.
Akhari et al. (2020)	200 customers in Iran	travel agencies	<ul style="list-style-type: none"> • Generalize the findings to other sectors/countries. • Include other variables and other antecedents of loyalty.
Glaveli (2020)	333 customers in Greece		<ul style="list-style-type: none"> • Generalize the findings to other sectors/countries. • Include other variables and other antecedents of loyalty. • Test the two components of loyalty separately (attitudinal and behavioral).
Raza et al. (2020)	280 customers in Pakistan	Bank	<ul style="list-style-type: none"> • Generalize the findings to other contexts. • Perform a longitudinal study. • Include boundary conditions. • Use other conceptual frameworks and other mediating variables.



6. DISCUSSION & CONCLUSION

The journals with the highest citations and publications in the field are social responsibility journal, journal of business ethics, journal of services marketing, corporate social responsibility, and environmental management.

In addition to developed countries, developing nations started to give importance to the topic, which shows the rise of customers' awareness in CSR and the

challenge for companies to establish a CSR strategy within their business core. The most influential articles were published in 2013 and 2015. The most cited articles are the papers published by Martinez and del Bosque (2013), Mandhachitara and Poolthong (2011), Choi and La (2013), Pérez and del Bosque (2015) and Pérez and del Bosque (2014). The peak in terms of publications was in 2017 and 2019, with 11 articles each year.

The quali-quantitative content analysis, combined with the citation analysis, revealed two distinct clusters based on their mediating variables: *mediating effects related to the consumer behavior and mediating impact related to the brand*. The cluster analysis showed that CSR's impact on customer loyalty is mainly explained indirectly through mediators except for Choi and La (2013), who confirmed the relationship directly and indirectly. As a matter of fact, CSR indirectly impacts customer loyalty through mediators that, without them, no link seems to exist. The indirect impact is explained through two degrees of mediation' strength: significant mediation and partial mediation. The significant mediation was confirmed by studies using trust, customer satisfaction, customer-company identification, relationship maintenance/value/quality, emotions, service quality, and corporate image as mediators. The partial mediation was affirmed in researches using corporate reputation/image and brand preference as mediators. The mediating effect of involvement was not robust, but still does exist. Besides, the mediating variables that were rejected are commitment and customer-company identification in the case of a CSR renewal strategy for weak brands. Moreover, this bibliometric study stresses the importance of services that have attracted more academic attention than tangible products. Thus, special attention needs to be deserved for products to widen knowledge.

The future research agenda was extracted from the most influential (2011-2019) and highest trending articles (2020). Future guidelines mainly emphasize generalizing the findings to other sectors, countries, or contexts. Also, the authors suggest performing a

longitudinal study and testing other conceptual frameworks or other mediating variables.

This paper has a few limitations. This paper's analyses are based on WOS database, which does not include all the literature on the topic. Future researchers may use other databases like Scopus. Also, even though the bibliometric analysis is highly systematic, the research streams require a subjective method to review the literature through content analysis. Moreover, it is suggested for future academic researchers to perform a bibliometric analysis regarding the impact of CSR on consumer behavior in general and, in particular, for specific variables such as customer satisfaction.

However, and most importantly, it is hoped that the analyses put forward in this paper will contribute to advancing the existing knowledge and understanding the literature on the impact of CSR on customer loyalty.

Conflict of interest

The authors comply with ethical standards and declare that there is no conflict of interest.

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KNOWLEDGE LEVEL REGARDING JUNK FOOD CONSUMPTION AMONG SCHOOL CHILDREN IN DHARWAD DISTRICT, KARNATAKA

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ABSTRACT

Junk foods have gained rapid popularity as they are easily available, ready to eat or served ready to eat as fast foods. Additives used in junk food make them more appealing and palatable which in-turn encourages consumption. Junk foods are known to cause adverse health effects like obesity, hyperglycemia, hypertension, dyslipidemia etc., yet it is widely consumed especially among the adolescents. A study was undertaken with the objective to assess the knowledge level regarding junk food consumption among school children in Dharwad district. Schools selected were Narendra School in rural area and Krishinagar school in urban area. Random sampling technique was employed for selection of the samples. A total of 120 students (60 each school) studying in class 7th, 8th, 9th and 10th were selected. Each subject was asked to fill the questionnaire. Subjects belonged to age group of 13 – 16 years. Family occupation among most of the subjects was agriculture and the family income was less than Rs. 1 lakh per annum. Breakfast was consumed at home and lunch was provided at school under mid-day meal scheme. Food outlets available nearby were petty shops, canteen, bakery, grocery stores and hotels. Majority of subjects 36 (60.00%) from Narendra and 46 (76.67%) Krishinagar were knowing about junk foods but knowledge regarding various ingredients, preservatives and chemicals used in preparation of junk foods and their adverse health effects was limited. Junk food consumption among most of the subjects was on monthly basis that is 21 (35.00%) from Narendra and 17 (28.33%) from Krishinagar. Commonly consumed junk food were deep fried items like chips, namkeens, sweets and other items like toffees, candies and coloured ice candies. Hence there is a need create awareness and impart knowledge regarding junk food and its effect on health among school children.

KEY WORDS: Junk foods, fast foods, preservatives, chemicals, health.

INTRODUCTION

Junk food culture has a vigorously uprising trend among youngsters and it makes people eat without planning. Fast food refers to food that can be served ready to eat. The terms fast food and junk

food are often used interchangeably. Most of the junk foods are fast foods as they are prepared and served fast, but not all fast foods are junk foods, especially when they are prepared with nutritious contents (Kaushik *et al.*, 2011). The definition of various food



items: fast foods are rapidly prepared and quickly served in a packaged form for take away eg: burgers, pizzas, fries, Indian foods like *pakora*, *samosa*, *namkeen* etc. Junk foods are energy dense foods with high sugar/ fat/ salt content and low nutrient value eg: chips, chocolate, ice-cream, soft drinks, burgers, pizzas etc.

The ready availability, taste, low cost, marketing strategies and peer pressure make them popular with children and adolescents. Fast food sale is promoted among children mainly through advertisements. Fast food chains are gaining popularity with nuclear families as working parents have less time for meal preparation at home. Junk foods are widely available in schools through variety of outlets. Consumption of diet high in sugar, saturated fat, salt and calorie content in children can lead to early development of obesity, hypertension, dyslipidemia and impaired glucose tolerance (Printice and Jebb, 2003). The concerns with fast food consumption also include poor hygiene during preparation storage and handling leading to microbiological contamination. Fast foods have high content of trans fat which predispose children to risk of future heart diseases (Asgary *et al.*, 2009). Energy density of fast food is more than twice the recommended daily allowance for children. Junk foods often contain colors that are inedible, carcinogenic and harmful to the body. Food coloring may result in hyperactivity and lapses of concentration in children. Poor nutritional habits can undermine these pre-requisites of learning, as well as decrease the strength that children need for better

future foundation. Hence the present study was undertaken with the objective to assess the knowledge level regarding junk food consumption among school children.

MATERIALS AND METHODS

Selection of the sample: The study was conducted in Dharwad District, Karnataka. Two schools that is Government School of Narendra, Narendra taluk and Krishinagar Government School, Krishinagar of Dharwad District were selected for the study. Sixty subjects from each school studying in class 7th, 8th, 9th and 10th were selected for the study. Random Sampling Technique was employed and the total sample size was 120.

Development of Questionnaire: The questionnaire consisting general information, availability, knowledge level and frequency of consumption of junk food was structured. Great care was taken to see that the questions were unambiguous, clear, complete and comprehensive. The questionnaire was prepared in conformity with the objective of the study.

Method of data collection: The total 120 subjects (60 subjects from each school) were asked to fill the questionnaire. They were asked to describe personal details, availability of junk food and type of junk foods consumed. Subjects were asked to tick Yes/No for knowledge whereas for consumption they were asked to tick frequency. Frequency and percentage were calculated for knowledge level and consumption of junk food.

RESULTS AND DISCUSSION

Table 1 Socio-Demographic profile of school children

N=120

Sl No	Demographic profile	Narendra School	Krishinagar School
1	Age	13-16 years	13-16 years
2	Family size	3-8 members	3-6 members
3	Occupation of family head		
	Agriculture	41 (68.33%)	29 (48.33%)
	Non agriculture	19 (31.67%)	31 (51.67%)
4	Family Income (annual)	Low (<Rs.84,000/annum)	Low (<1 Lakh/annum)

Table 1 depicts socio-demographic profile of subjects studying Narendra Village and Krishinagar, Dharwad District. The age of subjects ranged between 13 to 16 years. The family size of subjects from Narendra rural area was 3 to 8 members, whereas those from Krishinagar urban area was 3 to 6 members. Families of subjects residing in rural area of Narendra had agriculture as main occupation 41 (68.33%) and 29 (48.33%) of families of subjects from Krishinagar

also had agriculture as occupation. Though Krishinagar school was situated in urban area, students from nearby village also attended school. Family annual income of the subjects from both school of Narendra and Krishinagar was less than Rs.84,000/- and Rs. 1 lakh respectively.



Table 2 Availability of food outlets and meal consumption of subjects

N=120

SI No	School details	Narendra School	Krishinagar School
1	Availability of food outlets		
i.	School	Petty Shops, bakery	Canteen, bakery
ii.	Home	Petty Shops, canteen	Canteen, petty shops
iii.	On the way	Bakery	Petty shops, hotels
2	Consumption of breakfast at home	Yes	Yes
3	Carrying lunch box to school	No	No
4	Mid-day meal at school	Yes	Yes

Table 2 depicts availability of food outlets and meal consumption of subjects. In Narendra the subjects stated that the food outlets available nearby school, home and on the way were petty shops, canteen and bakery whereas those available at Krishinagar were bakery, canteen, grocery stores, petty shops and hotels. These shops are common in

rural areas and also in surrounding area of schools. Breakfast was consumed compulsorily at home as suggested by parents and subjects wanted to be energetic in school. They did not carry any lunch box to school as lunch was provided under mid-day meal scheme.

Table 3 Knowledge level regarding junk food among the subjects

N=120

SI No	Question	Knowledge level	
		Narendra	Krishinagar
1.	Have you heard about the junk foods?	36 (60.00%)	46 (76.67%)
2.	Do you think it is harmful?	24 (40.00%)	38 (63.33%)
3.	Do you think it makes a person unhealthy/overweight?	36 (60.00%)	32 (53.33%)
4.	Do you think that junk food is convenient and cheap alternative to homemade food?	30 (50.00%)	16 (26.67%)
5.	Do you know about ingredients used in junk foods?	2 (3.33%)	22 (36.67%)
6.	Do you know about artificial/metallic colors?	14 (23.33%)	24 (40.00%)
7.	Have you heard about <i>ajinomoto</i> ?	20 (33.33%)	25 (41.67%)
8.	Do you know about the food preservatives?	24 (40.00%)	18 (30.00%)
9.	Do you know about empty calories?	8 (13.33%)	18 (30.00%)
10.	Do you know the harmful effects of chemicals present in junk food?	12 (20.00%)	15 (25.00%)
11.	Do toxins in junk food affect nutrient absorption?	4 (6.67%)	10 (16.67%)
12.	Does advertisement affect your junk food consumption?	48 (80.00%)	32 (53.33%)
13.	Is food, nutrition and health inter-related?	48 (80.00%)	36 (60.00%)

Frequency (percentage) – Subjects who answered YES

Table 3 depicts knowledge level regarding junk food among the subjects. Majority of subjects that is 36 (60.00%) from rural Narendra and 46 (76.67%) from urban Krishinagar knew about junk foods. Subjects from Narendra 48 (80.00%) and Krishinagar 36 (60.00%) were also aware that food, nutrition and health are inter-related but knowledge regarding various ingredients, preservatives and chemicals used in preparation of junk foods and their adverse health effects regarding consumption of junk food was less. This may be due to lack of nutrition

knowledge. Advertisement affected junk food consumption in 48 (80.00%) subjects from Narendra and 32 (53.33%) subjects from Krishinagar. Khongrangjem *et al.* (2018) in a study conducted on knowledge and practice of fast-food consumption among Pre-University students in Udupi Taluk, Karnataka, India reported that about 51 (31.87%) of the participants had inadequate knowledge, 67 (41.88%) of the participants had moderate knowledge and 42 (26.25%) of the participants had adequate knowledge about the effect of fast-food consumption.



Table 4 Frequency of junk food consumption among the subjects

N=120

Sl. No	Frequency of consumption	Narendra	Krishinagar
1)	Never	3 (5.00%)	5 (8.33%)
2)	Occasionally	7 (11.67%)	8 (13.33%)
3)	Once a month	21 (35.00%)	17 (28.33%)
4)	Once a 15 days	11 (18.33%)	10 (16.67%)
5)	Once a week	7 (11.67%)	10 (16.67%)
6)	Alternate day	5 (8.33%)	6 (10.00%)
7)	Daily	6 (10.00%)	4 (6.67%)
	Total	60.00	60.00

Frequency (percentage)

Table 4 shows frequency of junk food consumption among the subjects. Majority of subjects from both rural Narendra 21 (35.00 %) and urban Krishinagar 17 (28.33 %) consumed junk food on monthly basis. Subjects from Narendra 11 (18.33 %) consumed junk food once a 15 days. Subjects from Krishinagar 10 (16.67 %) consumed of junk food once a week and once a 15 days. Mirkarimi *et al.* (2016) stated that the adolescents consumed fast

food on monthly basis. Malushte and Hedeoo (2016) in a study conducted on buying behaviour of fast foods among adolescents aged 16-19 years reported that majority of respondents that is 64.5 per cent consumed fast foods 1-2 times followed by 26.5 percent consuming 3-4 times and 5 per cent more than 5 times per week.

Table 5 Commonly consumed junk food consumption among the subjects

Sl. No	School	Junk foods
1.	Narendra	Chips, namkeens, sweets and other items like toffees, candies
2.	Krishinagar	Chips, namkeens, coloured ice candy and toffees

Table 5 shows commonly consumed junk food consumption among the subjects. Subjects from rural Narendra consumed deep fried items like chips, namkeens, sweets and other items like toffees, candies whereas those from urban Krishinagar consumed chips, namkeens, coloured ice candy and toffees. Asundi and Chimmad (2012) noted that many rural people consumed unbranded junk food. Malushte and Hedeoo (2016) stated that advertisements and peer group influence junk food consumption.

CONCLUSION

Majority of subjects both from rural and urban consumed junk foods on monthly basis. Commonly consumed junk foods were deep fried items like chips, namkeens, sweets and other items like toffees, candies and coloured ice candies which were easily available in local area. Though most of the subjects from both schools were aware about junk food, their knowledge regarding composition and effects were limited. Hence there is a need create awareness and impart knowledge regarding junk food and its effect on health among school children.

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A STUDY THE PROBLEMS OF AUTO RICKSHAW DRIVERS IN KOLHAPUR CITY USING STATISTICAL TOOLS AND TECHNIQUES

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ABSTRACT

Health is a very significant matter in the daily life of a vehicle driver. The aim of this study is to identify the problems among the auto rickshaw service providers in relation to their standard of living and the number of hours put in driving the auto rickshaws, their life style, economic status, technology awareness, educational status, awareness about insurance. For this purpose, a well designed questionnaire prepared for collection of primary data containing various attributes and was circulated to 125 auto rickshaw drivers through convenient sampling technique and The data had been collected from different location in Kolhapur city . The collected data were then analysed with the help of various statistical tools and techniques to know the socio economic lifestyle of the autorickshaw drivers in kolhapur city .In our study the obtained results shows revealed major issues and backlogs in their socio economic lifestyle.

KEYWORDS: Graphical Representation, Large Test , Small Test, Level of significance.

INTRODUCTION

Auto rickshaw drivers in India have different life style. They work on daily basis and earn enough money to spend with their family. Rickshaw drivers with their humble behavior and hard work, earn money by taking the passengers to their destination. He is unable to buy his own rickshaw on his bases that's why, he takes loan from bank to

buying rickshaw or he rent it for a rickshaw's owner. He works day in, day out. The hard work by rickshaw driver does not match the money for their fulfillment. Most of the times people try to pay him less. Rickshaw drivers want easy cash so he takes more passengers in a day and hard work. His life is simple life as he as to stand near road intersection and wait for passengers. He is one of the reasons for traffic.



An auto rickshaw provides door to door service and acts as a feeder mode to public trans, generally of train commuters using rickshaw to access the station. While auto rickshaw serves an integral transport role to resident of Kolhapur. We aim to answer some of the following questions; How many hours they drive? How much time to waiting for passengers? What is there education qualification?

They face many problems and had to go through several messy situations, but still people try to pay them less. A rickshaw driver have not sufficient income to there expenditure.

So in this study we try to analyze the life-style of auto rickshaw drivers in Kolhapur city.

OBJECTIVES

- To study the lifestyle of auto drivers in Kolhapur city
- To study economic status of auto drivers
- To study the technology awareness in auto drivers
- To study the educational status of auto drivers
- To study of family status of auto drivers
- To study of insurance of auto and his family
- To study the health problems of auto drivers
- To study of no. of E-meter's in Kolhapur city
- To study the company of auto rickshaws

METHODOLOGY

To study we have selected auto rickshaw driver we have C.B.S, Kadamwadi, shivajiputala, Sadarbajar, Nagala Park and Tarabai Park from this study.

There are total 100 Drivers in C.B.S. Stand, 30 Drivers in Kadamwadi, 50 Drivers in Shivajiputala, 40 Drivers in Sadarbajar, 30 Drivers in Nagala Park, and 25 Drivers in Tarabai Park. We have selected 32 Drivers from C.B.S. Stand, 10 Drivers from Kadamwadi, 31 Drivers from Shivajiputala, 29 Drivers from Sadarbajar, 13 Drivers from Nagala Park, 10 Drivers from Tarabai park Therefore the total sample size of 125 Drivers considered.

In this study, we have observed they face many problems and had to go through several messy situations, but still people try to pay them less, High traffic, Bad condition of road, competition of government vehicles.

Method of data collection

We have collected data from C.B.S. Stand , Kadamwadi , Shivajiputala, Sadarbajar, Nagala park, Tarabai park of size 32,10,31,29,13 and 10 respectively. This study was conducted with a "interview" method. While information collecting from the auto stop is useful for making correct decision about the problem of auto drivers. following are some photographs of data collection



Statistical tools used:

- Graphical representation
- Testing of hypothesis

Software used:

- MS-Excel
- Microsoft Word
- R-software



GRAPHICAL REPRESENTATION

<table><tr><td>Rea</td><td>Rural</td><td>Urban</td></tr><tr><td>No. of auto drivers</td><td>33</td><td>92</td></tr></table>			Rea	Rural	Urban	No. of auto drivers	33	92	<div>Area of residential</div> <div><div></div> Rural</div> <div><div></div> Urban</div>						
Rea	Rural	Urban													
No. of auto drivers	33	92													
<table><tr><td>Type of housing</td><td>Flat</td><td>Bungalows</td><td>Simple</td><td>On rent</td></tr><tr><td>No. of auto driver</td><td>6</td><td>28</td><td>75</td><td>16</td></tr></table>			Type of housing	Flat	Bungalows	Simple	On rent	No. of auto driver	6	28	75	16	<div>Type of housing</div> <div>6287516</div> <div>FlatBungalowsSimpleOn rent</div>		
Type of housing	Flat	Bungalows	Simple	On rent											
No. of auto driver	6	28	75	16											
<table><tr><td>Marital Status</td><td>Married</td><td>Unmarried</td></tr><tr><td>No. of auto drivers</td><td>113</td><td>12</td></tr></table>			Marital Status	Married	Unmarried	No. of auto drivers	113	12	<div>10%Marital status</div> <div><div></div> Married</div> <div><div></div> Unmarried</div>						
Marital Status	Married	Unmarried													
No. of auto drivers	113	12													
<table><tr><td>Auto insurance (Yes/No)</td><td>Yes</td><td>No</td></tr><tr><td>No. of auto drivers</td><td>65</td><td>60</td></tr></table>			Auto insurance (Yes/No)	Yes	No	No. of auto drivers	65	60	<div>Loan</div> <div><div></div> Yes</div> <div><div></div> No</div>						
Auto insurance (Yes/No)	Yes	No													
No. of auto drivers	65	60													
<table><tr><td>Type of bank for loan</td><td>Co-operative</td><td>Central bank</td><td>Private Bank</td><td>No Bank</td></tr><tr><td>No. of auto drivers</td><td>17</td><td>41</td><td>16</td><td>51</td></tr></table>			Type of bank for loan	Co-operative	Central bank	Private Bank	No Bank	No. of auto drivers	17	41	16	51	<div>No. of Auto drivers</div> <div>17411651</div> <div>Co-operativeCentral bankPrivate BankNo Bank</div> <div>Type of Banks</div>		
Type of bank for loan	Co-operative	Central bank	Private Bank	No Bank											
No. of auto drivers	17	41	16	51											
<table><tr><td>Auto insurance (Yes/No)</td><td>Yes</td><td>NO</td></tr><tr><td>No. of auto drivers</td><td>121</td><td>4</td></tr></table>			Auto insurance (Yes/No)	Yes	NO	No. of auto drivers	121	4	<div>Auto insurance</div> <div><div></div> Yes</div> <div><div></div> NO</div>						
Auto insurance (Yes/No)	Yes	NO													
No. of auto drivers	121	4													
<table><tr><td>Family insurance (Yes/No)</td><td>Yes</td><td>No</td></tr><tr><td>No. of auto drivers</td><td>65</td><td>60</td></tr></table>			Family insurance (Yes/No)	Yes	No	No. of auto drivers	65	60	<div>Family insurance</div> <div><div></div> Yes</div> <div><div></div> NO</div>						
Family insurance (Yes/No)	Yes	No													
No. of auto drivers	65	60													

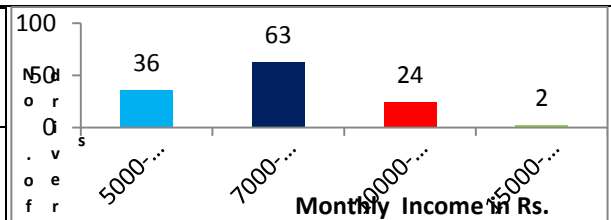


Type of company	Bajaj	TVS	Ape
No. of auto drivers	101	16	8

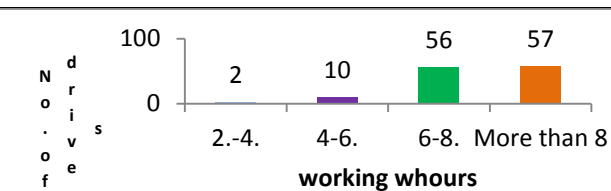
No. of auto drivers



Monthly income	5000-7000	7000-10000	10000-15000	15000-20000
No. of auto drivers	36	63	24	2



Working In hours	2.-4.	4-6.	6-8.	More than 8
No. of auto drivers	2	10	56	57

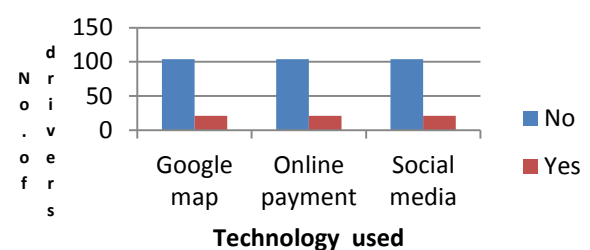


Fuels	Petrol	Gas	Both
No. of auto drivers	52	66	7

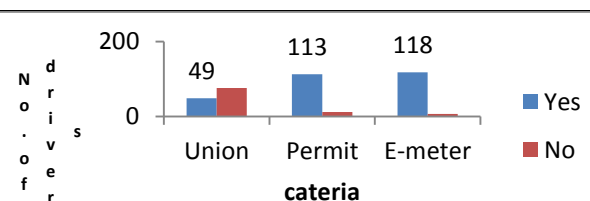
Fuel uses



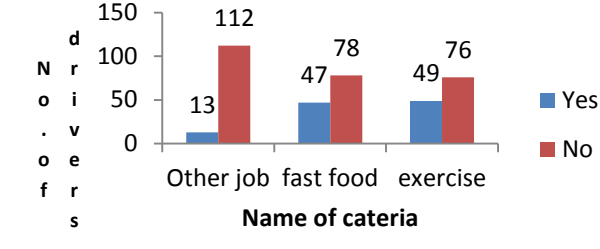
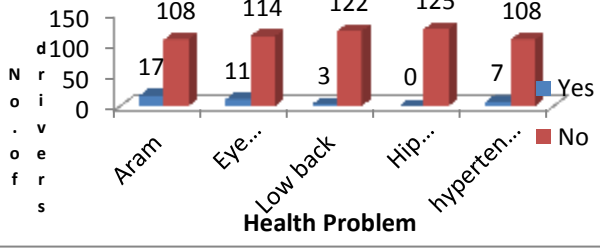
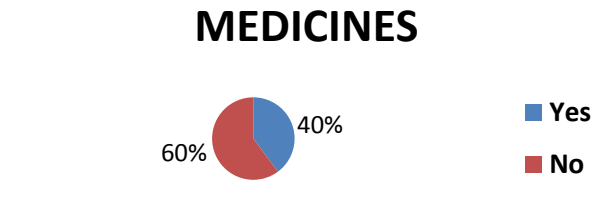
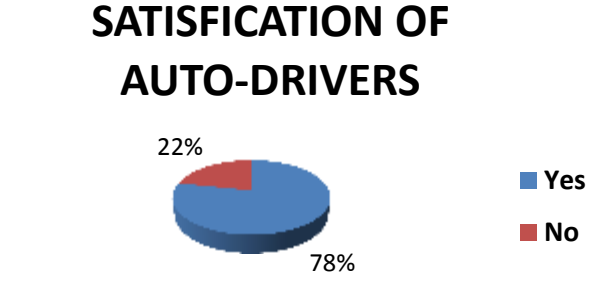
Yes/No	Google map	Online payment	Social media
No	104	104	104
Yes	21	21	21



Yes/No	Union	Permit	E-meter
Yes	49	113	118
No	76	12	7





<table><tr><td>Yes/No</td><td>Other job</td><td>fast food</td><td>exercise</td></tr><tr><td>Yes</td><td>13</td><td>47</td><td>49</td></tr><tr><td>No</td><td>112</td><td>78</td><td>76</td></tr></table>				Yes/No	Other job	fast food	exercise	Yes	13	47	49	No	112	78	76	 <p>Name of cateria</p>						
Yes/No	Other job	fast food	exercise																			
Yes	13	47	49																			
No	112	78	76																			
<table><tr><td>Yes/No</td><td>Aram</td><td>Eye problem</td><td>Low back</td><td>Hip Disorder</td><td>Hyper-tension</td></tr><tr><td>Yes</td><td>17</td><td>11</td><td>3</td><td>0</td><td>7</td></tr><tr><td>No</td><td>108</td><td>114</td><td>122</td><td>125</td><td>108</td></tr></table>				Yes/No	Aram	Eye problem	Low back	Hip Disorder	Hyper-tension	Yes	17	11	3	0	7	No	108	114	122	125	108	 <p>Health Problem</p>
Yes/No	Aram	Eye problem	Low back	Hip Disorder	Hyper-tension																	
Yes	17	11	3	0	7																	
No	108	114	122	125	108																	
<table><tr><td>Medicines(Yes/No)</td><td>Yes</td><td>43</td></tr><tr><td>No. of auto drivers</td><td>No</td><td>65</td></tr></table>				Medicines(Yes/No)	Yes	43	No. of auto drivers	No	65	 <p>MEDICINES</p>												
Medicines(Yes/No)	Yes	43																				
No. of auto drivers	No	65																				
<table><tr><td>Satisfy(Yes/No)</td><td>Yes</td><td>98</td></tr><tr><td>No. of auto drivers</td><td>No</td><td>27</td></tr></table>				Satisfy(Yes/No)	Yes	98	No. of auto drivers	No	27	 <p>SATISFICATION OF AUTO-DRIVERS</p>												
Satisfy(Yes/No)	Yes	98																				
No. of auto drivers	No	27																				

TESTING OF HYPOTHESIS

a) Test for independence between drive hours and health problem:

Hypothesis:

H₀: Drive hour and health problem are independent.

H₁: Drive hour and health problem are not independent



Observation Table:

Hours/Health	No	Yes	Grand Total		
2-4	1	1	2		
4-6	5	5	10		
6-8	41	15	56		
More than 8	49	8	57		
Grand Total	96	29	125		
				Chi-square calculated	7.92
				Chi-square tabulated	7.81
				DF	1
				p-value	0.037
				Alpha	0.05

b) Test for independence between the area and monthly income

H_0 : area and monthly income are independent.

H_1 : area and monthly income are not independent.

Observation Table:

Area/income	5000-7000	7000-10000	10000-15000	15000-20000		
Rural	15	13	5	0		
Urban	21	50	19	2		
					Chi-square calculated	6.496
					Chi-square tabulated	7.815
					DF	3
					p-value	0.090
					alpha	0.05

c) Test for independence between the education and monthly income

H_0 : The Education and monthly income are independent.

H_1 : The Education and monthly income are not independent.

Observation table

Education/Income	5000-7000	7000-10000	10000-15000	15000-20000	Chi-square calculated	19.723
HSC	5	14	2	1	Chi-square tabulated	28.869
Illiterate	0	2	0	0	DF	18
PG	0	0	1	0	p-value	0.349
SSC	10	27	10	1	alpha	0.05
UG	3	3	4	0		
below 5th	3	2	2	0		
below SSC	15	15	5	0		



d) Test for independence between education and family insurance

H_0 : Education and family insurance are independent.

H_1 : Education and family insurance are not independent.

Observation table:

Education/insurance	Yes	No	Chi-square calculated	12.552
HSC	12	10	Chi-square tabulated	12.592
Illiterate	2	0	DF	6
PG	0	1	p-value	0.051
SSC	21	27	alpha	0.05
UG	4	6		
below 5th	7	0		
below SSC	14	21		

e) Test for independence between education and loan:

H_0 : Education and loan are independent.

H_1 : Education and loan are not independent.

Observation Table

Education/loan	Yes	NO	Total	Chi-square calculated	5.095
HSC	10	12	22	Chi-square tabulated	12.592
Illiterate	0	2	2	DF	6
PG	0	1	1	p-value	0.532
SSC	22	26	48	alpha	0.05
UG	7	3	10		
below 5th	3	4	7		
below SSC	18	17	35		

f) Z test of rural and urban auto drivers

$H_0: \mu_1 = \mu_2$ and $H_1: \mu_1 \neq \mu_2$

	Owner	Rental
Mean	419.7692	319.625
Known Variance	7347.391	2160.984
Observations	117	8
Hypothesized Mean Difference	0	
Z	5.488519	
z Critical one-tail	1.644854	
P(Z<=z) two-tail	4.05E-08	
z Critical two-tail	1.959964	

g) F-test for equality of two variance

$H_0: \sigma_1 = \sigma_2$ and $H_1: \sigma_1 \neq \sigma_2$

	Rural	Urban
Mean	379.9697	425.337
Variance	7935.03	7122.182
Observations	33	92
df	32	91
F	1.114129	
P(F<=f) one-tail	0.337287	
F Critical one-tail	1.570625	



h) Test for proportion of auto driver stay in simple house

Let,

n: Sample of auto driver

x: No. of auto driver has simple house

p: Sample proportion of auto driver has simple house

$$= \frac{x}{n} = 0.60$$

Level of significance, $\alpha = 5\%$

Hypothesis

$$H_0: P=0.65 \quad \text{V/s} \quad H_1: P \neq 0.65$$

$$|Z_0| = 1.1702$$

Critical value = $Z_{\alpha/2} = 1.96$

i) Test for proportion of auto drivers are taking loan in central bank

Let, n: Sample of auto Driver

x: No. of auto drivers have loan at central bank

p: sample proportion of taking loan in central bank

Level of Significance, $\alpha=5\%$

Hypothesis

$$H_0: P=0.4 \quad \text{V/s} \quad H_1: P \neq 0.4$$

Calculation

$$|Z_0| = 1.6431$$

Critical value = $Z_{\alpha/2} = 1.96$

j) Test for proportion of auto driver use bajaj auto company

Let,

n: Sample of auto driver

x: No. of auto drivers use bajaj auto company

p: Sample proportion of use bajaj auto company

Level of significance, $\alpha = 5\%$

Hypothesis

$$H_0: P=0.85 \quad \text{V/s} \quad H_1: P \neq 0.85$$

$$\text{Calculation: } |Z_0| = 0.2236$$

Critical value = $Z_{\alpha/2} = 1.96$

k) Test for proportion of auto driver use gas as fuel

Let,

n: Sample of auto driver

x: No. of auto drivers use gas as fuel

p: Sample proportion of use gas as fuel

Level of significance, $\alpha = 5\%$

Hypothesis

$$H_0: P=0.60 \quad \text{V/s} \quad H_1: P \neq 0.60$$

$$|Z_0| = 1.6431$$



Critical value = $Z_{\alpha/2} = 1.96$

ANOVA TEST (CRD)

The Testing of equality average of Different types of Companies of auto Drivers

Hypothesis:

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$ i.e. There is no significant difference between Companies of Auto Drivers

Where μ_1 : Bajaj, μ_2 : TVS, μ_3 : Ape, μ_4 : Other

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit.
Between Groups	3241.372	2	1620.686	0.208396	0.812174	3.070512
Within Groups	948787.4	122	7776.946			
Total	952028.8	124				

MAJOR FINDING

Our study shows that the maximum auto drivers are lives in urban area in simple house, most of auto drivers are married and maximum of are taking bank loan for buying auto rickshaw. They are prepared Central Bank for taking Bank loan. Number auto drivers are taking family insurance as well as insurance for auto rickshaw. Bajaj Auto companys rickshaw preferred by most of drivers .the montly income is Rs. 7000-10000. and auto drivers have minimum one vehicle. they driving in daily more than eight hours. and uses gas and petrol for fuel options. auto drivers are waiting for Passenger are nearly about one-two hours. most of the auto drivers are not use Smartphone and doesn't aware about the technology. The most of the auto drivers are does not include in Union, almost every auto has permit, and most of the auto drivers use e-meters and are do not work in others job. Almost auto-drivers though lot of people do not have any exercise regime they also do not any fast food. most of the auto drivers are faced aram and eye related issues, and none of the auto rickshaw drivers have problem related to hip disorder. They does not use in medicine. mostly auto drivers are satisfy in their work and income. Finally conclude that drive hours and health problem are not in dependent but area and monthly income are dependent. Auto drivers education and their monthly income are independent. And there is significant difference between education monthly incomes. education and family insurance are not independent There is no significance difference between education and loan.

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A STUDY OF IMPACT OF WATCHING TV ON SOCIETY USING ON STATISTICAL TOOLS AND TECHNIQUES

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ABSTRACT

Twenty first century has seen rapid technological advancement in mass media. Among all mass media, television is an important and an unavoidable thing. It is a window to the world. In this study we want to see what is the influence of watching T.V. on society for this purpose we collect the primary information through systematic questionnaires contained number of attributes like gender, area, age group, expenditure etc. the collected data is analysed through various statistical measures. Our study shows that the proportion of watching T.V. in urban area is high as compared to rural area and maximum number of individuals of watching TV is in the age group 20-40.

KEYWORDS: Graphical Representation, chi-square Test, ANOVA, Level of significance.

INTRODUCTION

Twenty first century has seen quick mechanical headway in broad communications. Among all broad communications, TV is a significant and an unavoidable thing. It is a "window to the world". All out number of TV homes in India would be in excess of 100 million. The metropolitan provincial proportion of TV homes is expanding In India, before the appearance of TV, film and radio were extremely well known. At first, the TV was presented in 1959 as an instrument of correspondence. Afterward, it turned into an

amusement medium. Presently it has been accessible in every single family in India. The presentation of satellite TV in 1991 drastically changed the survey example of our kin. As of now, we have umpteen number of western, Indian, provincial, nearby and Govt. TV stations (Dr. Dhyan Singh). It is an incredible medium and go about as an impetus of social change. TV has changed our planet into a "immense electronic town" bringing all individuals and nations close (Bushan 1992). As of late, numerous specialists have demonstrated revenue as to TV's effect on human lives at any phase of



improvement. On account of its joined general media impacts, it has been considered as a conceivably solid specialist for youngsters and youths. Youthful watchers stare at the TV as a method of pie in the sky ID and hence, favor TV depictions (Boehnke, Munch and Hoffman, 2002). It is presently demonstrated that TV can profoundly affect kids and youths' turn of events and conduct.

Kubey and Csikszentmihaly (1990) have detailed that TV seeing is by all accounts a uninvolved movement and that necessary little focus on their part when contrasted with assortment of other recreation time exercises. TV seeing appears to have kept up its prevailing situation in the present youth recreation time. In spite of the fact that the presentation of PCs and the web appears to have definitely adjusted home admittance to media diversion, still TV keeps on convincing kids to dedicate significant part of their chance to its programming (Roberts, 2000 and Koolstra, 1999). Parker (1961) has set up that TV has extensively diminished an opportunity to be spent for different exercises. We know that recently the competition is increased in every field of life. Therefore the students should get the ability to compete the world. We know that every year 6.8 crores students complete their graduation in India. But how many of them are getting a good settled life is a more important question. Here we introduced the students time with their TV. All these things of consistency in their watching TV should benefit to get the knowledge. So this study gives an idea about the spending time with TV of students and teachers. In this article we studied the comparative with area as well as gender of students and teachers. We introduced the area wise separation of students and teachers for watching TV with gender. We also study the effect of TV in human mind. In 6 colleges we take 159 peoples in which 121 students and 38 teachers. We have collected their information in the form of primary data.

OBJECTIVES

- To test whether the correlation coefficient between age and time is correlated or uncorrelated.
- To test whether the correlation coefficient between age and time is correlated or uncorrelated.
- To test whether the different stages of a day are independent on working & non-working days for watching TV in urban area.
- To test whether the different stages of a day are independent on working & non-working days for watching TV in rural area.
- To test whether the education level is independent on different area.
- To tests whether the availability of television is independent on different
- To analysis of CRD for given data.

METHODOLOGY

For collection of data we use questionnaires and the questionnaires includes the information about their address, use of phone, marks, parent occupation and annual income, family and also their view about teachers performance. We collect information of 121 students and 38 teachers from Science faculty. Primary data collected from following three groups accordingly T.Y. B.Sc., S.Y. B.Sc. students and Teachers

Statistical tools

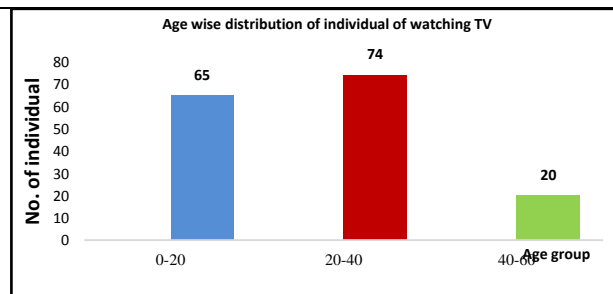
1. Graphical representation.
2. Testing of hypothesis.
3. Test for correlation coefficient.
4. One way ANOVA.

Software Used

1. MS-Excel

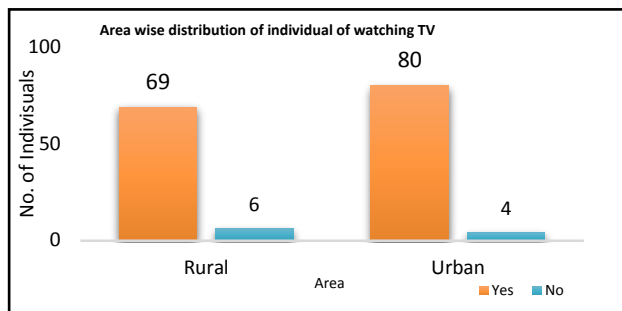
GRAPHICAL REPRESENTATION

Age group	No. of individuals
Below 20	65
20-40	74
Above 40	20

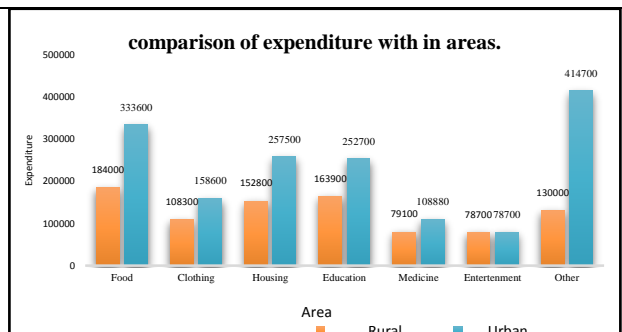




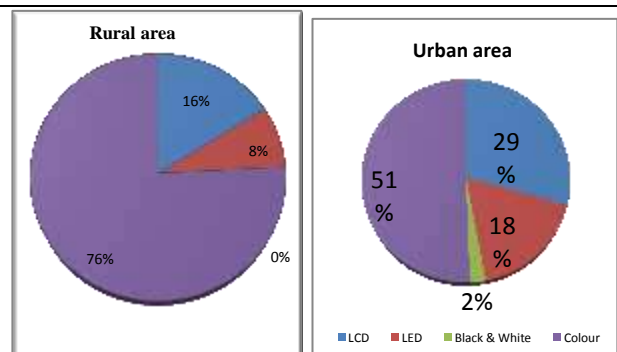
Area		No. of individuals
Rural	Yes	69
	No	6
Urban	Yes	80
	No	4



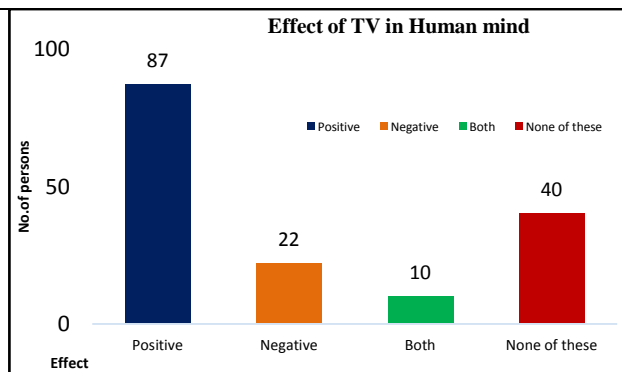
Expenditure/Area	Rural	Urban
Food	184000	333600
Clothing	108300	158600
Housing	152800	257500
Education	163900	252700
Medicine	79100	108880
Entertainment	78700	78700
Other	130000	414700



Types of TV	Rural	Urban
LCD	10	25
LED	5	15
Black & White	0	02
Colour	47	43
Total	62	85



Type of Effect on Human mind	No. of Persons
Positive	87
Negative	22
Both	10
None of these	40



TESTING OF HYPOTHESIS

a) Chisquare test for independency of age wise watching TV in areas:

Let the hypothesis are stated as

H_0 : Watching TV is independent on areas. v/s H_1 : Watching TV is dependent on areas.

Level of significance: $\alpha \% = 5\%$



Test Statistics

$$\chi^2 = \frac{N[ad-bc] - \frac{N^2}{2}}{(a+b)(a+c)(c+d)(b+d)} \sim \chi^2_1$$

Observation table

Area	Watching TV		Total
	Yes	No	
Rural	82	2	84
Urban	73	2	75
Total	155	4	159

Calculation

$$\begin{aligned}\chi^2 &= \frac{N[ad-bc] - \frac{N^2}{2}}{(a+b)(a+c)(c+d)(b+d)} \sim \chi^2_1 \\ &= 0.1539 \\ \chi^2_{\text{tab}} &= \chi^2_1 \\ &= 3.841\end{aligned}$$

b) Chisquare test for independence of education level in areas

Hypothes is:

H₀: Education level is independent on areas. v/s H₁: Education level is dependent on areas.
Level of significance=α % = 5 %

Test Statistics

$$\chi^2 = \frac{N[ad-bc] - \frac{N^2}{2}}{(a+b)(a+c)(c+d)(b+d)} \sim \chi^2_1$$

Observation table

Area	Education level		Total
	U.G.	P.G.	
Rural	58	22	80
Urban	46	33	79
Total	104	55	159



Calculation

$$\chi^2 = \frac{N[ad-bc]^2}{(a+b)(a+c)(c+d)(b+d)}$$

$$= 4.0896$$

$$\text{Degrees of freedom} = (r-1)*(c-1) \\ = (2-1)(2-1) = 1$$

$$\chi^2_{\text{tab}} = 3.576.$$

C) Chi-square test test for independency in different stages of a day and working and non-working days of watching TV in Rural area:

Hypothesis

H₀: The different stages of day are independent on working & non-working days for watching TV. V/s

H₁: The different stages of day are dependent on working & non-working days for watching TV.

$$\text{Test statistics : } \chi^2 = \frac{(O_i - E_i)^2}{E_i}$$

Level of significance : $\alpha \% = 5\%$

Observation Table

	Working day	Non-Working day	Total
Morning	0	14	14
Afternoon	4	18	22
Evening	22	14	36
Night	41	30	71
Total	67	76	143

Calculation

$$\text{Here,} \\ \sum \frac{(O_i - E_i)^2}{E_i} = 25.9424 \\ \chi^2_{\text{cal}} = 15.7341 \\ \chi^2_{\text{tab}} = \chi^2_6$$

d) Chi-square test test for independency in different stages of a day and working and non-working days of watching TV in Rural area

Hypothesis

H₀: The different stages of day are independent on working & non-working days for watching TV.

H₁: The different stages of day are dependent on working & non-working days for watching TV.



Observation Table

	Working day	Non-Working day	Total
Morning	4	12	16
Afternoon	2	28	30
Evening	21	19	40
Night	41	29	78
Total	76	88	164

Calculation

Here ,
 $\chi^2_{cal} = 31.0496$
 $\chi^2_{tab} = 7.815$

One way ANOVA:

Hypothesis

H₀: The average of time (in min.) by permanent, temporary, full time, part time is not equal.
 H₁: The average of time (in min.) by permanent, temporary, full time, part time is equal.

Calculation

G = 6080 ; C.F. = 535744.9275; TSS = 193058.6; SSTr = 11969.84

SSE = 181088.7 ; s^2_{tr} = 3989.948 ; s^2_e = 2343.769

ANOVA TABLE

	Sum of Square	Degrees of freedom	Mean Sum of square	F- ratio	$F_{tab} = F_{(3,66)} =$
Between Groups	11969.84	3	3989.948	1.454185	2.64
Within Groups	181088.7	66	2743.769		
Total	193058.6	69			

CONCLUSION

From our study we conclude that many students watch TV for long time and maximum number of individuals of watching TV is in the age group 20-40, also observed that number of individual of watching TV is in urban area is more than rural area. The expenditure of individuals from rural area is less as compared to that of urban area but in case of entertainment, the expenditure of individuals from both the area is approximately same. The more use of colour TV in urban area than rural area. age wise population watching TV in areas are independent also education level is independent on areas. we

conclude that the different stages of day are dependent on working & non-working days for watching TV in rural areas well as in urban area. According to one way ANOVA test, the average of time by permanent, temporary, full time, part time is not equal.

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CLOUD COMPUTING AND GLOBAL INFRASTRUCTURE OF MOST POPULAR SERVICE PROVIDERS

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ABSTRACT

Cloud computing is the commercial availability service to fulfil the individual's computing needs. The cloud services is delivered by a third party cloud service provider and almost always delivered remotely. Cloud provider basic services include processing, networking, disk and storage, database, desktops etc. and at the higher level services like Artificial Intelligence (AI), Machine Learning (ML), Blockchain, Internet of Things (IoT) and many more. Customer can use as many services as needed and they only pay for what is used. In this paper review the basic of cloud computing and infrastructure strength of three (AWS, Azure and Google cloud) popular and global cloud service providers.

KEYWORDS: cloud, AWS, Azure, Google cloud, cloud infrastructure

INTRODUCTION TO CLOUD COMPUTING

The National Institute of Standards and Technology (NIST) Define Cloud Computing as “Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”[1]

ESSENTIAL CHARACTERISTICS

- On-demand self-service
- Broad network access
- Resource pooling
- Rapid elasticity.
- Measured service

SERVICE MODELS

- Software as a Service (SaaS)
- Platform as a Service (PaaS).
- Infrastructure as a Service (IaaS)

DEPLOYMENT MODELS

- Private cloud

- Community cloud
- Public cloud
- Hybrid cloud

BENEFITS OF CLOUD COMPUTING

- Cost
- Speed
- Global scale
- Productivity
- Performance
- Reliability
- Security

POPULAR AND GLOBAL CLOUD SERVICE PROVIDERS

1. Amazon Web Services (AWS).
2. Microsoft Azure.
3. Google Cloud.

Amazon Web Services (AWS)

Amazon Web Services (AWS) is part of the e-commerce retailer, amazon.com. AWS provides featured services like Amazon EC2, Amazon Simple Storage Service (S3), Amazon Aurora, Amazon DynamoDB, Amazon RDS, AWS Lambda, Amazon VPC, Amazon Lightsail, Amazon SageMaker and many more[3].

Microsoft Azure

Azure is the Cloud offering from Microsoft. Azure features services such as Virtual Machines, Windows Virtual Desktop, Azure SQL, App Service, Azure Cosmos DB, PlayFab, Azure Kubernetes Services (AKS), Azure Functions, Azure Cognitive Services and Azure Quantum more over Azure provide 200+ services [2].

Google Cloud

The Google Cloud Platform provides Cloud services such as Infrastructure as a Service, Platform as a Service, and Function as a Service. Google cloud featured products include Compute Engine, Cloud Storage, Cloud SDK, Cloud SQL, Google Kubernetes Engine, BigQuery, Cloud CDN, Dataflow, Operations, Cloud Run, Cloud functions, Anthos and 100+ more products [4].

CLOUD INFRASTRUCTURE

Cloud infrastructure is a collection of software and hardware components that are needed for cloud computing. In other words infrastructure is the set of tools needed to build a cloud. It includes computing power, network resources, storage, abstracted resources and an interface for users to access virtual cloud resources [5][6].

CLOUD GLOBAL INFRASTRUCTURE OF AWS, AZURE AND GOOGLE CLOUD

❖ AWS

AWS now spans 77 Availability Zones within 24 geographic regions around the world, and has announced plans for 15 more Availability Zones and 5 more AWS Regions in India, Indonesia, Japan, Spain, and Switzerland. Figure 1 shows the global infrastructure regions of AWS.



Figure 1: AWS Global Infrastructure [7]

- 24 Launched Regions (Each with multiple Availability Zones (AZ's))
- 5 Announced Regions
- 77 Availability Zones
- 2 Local Zones and 5 Wavelength Zones (For ultralow latency applications)
- 245 Countries and Territories Served
- 97 Direct Connect Locations
- 220+ Points of Presence (210+ Edge Locations and 12 Regional Edge Caches)[7]

❖ Azure

Azure has 28 Available regions and one Announced region having 12 Available zones available and 12 Announced available zones. It also has 9 Announced regions with available zone. Figure 2 shows the regions and zones representation in the world map. It also shows the different edge sites available to connect with the network and layout of WAN links.



Figure 2: Azure Global Network. [9]

❖ Google Cloud

Google cloud now has 73 Availability Zones within 24 geographic regions around the world. It has 144 Network Edge Connectivity Locations and available

in more than 200 Countries and Territories. [8]. Figure 3 shows the current and future regions in the world map. Figure 4 shows the network layout with edge points.



Figure 3: Google Cloud Global Infrastructure (Region View) [8]



Figure 4: Google Cloud Global Infrastructure (Network View) [8]

Cloud service provider provide infrastructure so that the customer can focus on developing their product and services rather than invest on the infrastructure. This is a big advantage because purchasing, and maintaining the expensive hardware is sometime beyond the current capacity of many small to medium scale companies. Moreover there is complexity in installing and implementing hardware, and also it takes lots of time. So for customers, this represents a huge savings in computer infrastructure, hardware and licensing time. Customer uses the

services as needed and scale up and down without any overhead.

CONCLUSION

Cloud is the fastest growing technology. Cloud provides hundreds of services in the cost effective manner. There are many advantages of using cloud such as cost, global scalability, better performance, high speed etc. There are many cloud service provider AWS, Azure and Google Cloud are the most popular among them. AWS is in the top with highest market share followed by Azure and Google Cloud.

<https://azure.microsoft.com/en-us/global-infrastructure/global-network/> (Assessed at 10/11/2020)

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SOCIAL PHILOSOPHICAL CHARACTERISTICS OF SPEAKING SKILLS

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ABSTRACT

The article analyzes the social philosophical properties of speech skills using the scientific literature and also communication culture among young people, especially in public speaking skills and abilities as well. Therefore, the study of the history, socio-philosophical nature, essence, characteristics, history of origin, development factors, its role in the process of spiritual enlightenment and ways to improve the oratory skills of spiritual preachers has become a special scientific and practical need.

KEY WORDS: oratory, spirituality, enlightenment, Discovery, communication, speech culture, Babur, Renaissance, word, sermon, preaching, Orientation, eloquence.

INTRODUCTION

In Uzbekistan, which is developing from “national revival to national uplift”, ample opportunities are being created for everyone to express themselves. At the same time, there is a lack of communication culture among young people, especially in public speaking skills and abilities. This increases the demand for individuals who are able to perform current socio-political tasks, have a socially active, lively and lively speech culture, have mastered the basics of public speaking have a culture of communication, negotiation, debate. The democratic society the rule of law, pluralism, openness, stereotypes, indifference and dry propaganda are being abandoned in our country. Spirituality and enlightenment are the priorities of the state policy of the Republic of Uzbekistan, and oratory is the main tool for the implementation of this policy. Therefore, the study of the history, socio-philosophical nature, essence, characteristics, history of origin, development factors, its role in the process of spiritual enlightenment and ways to improve the oratory skills of spiritual preachers has become a special scientific and practical need.

METHODS

The works of our great thinkers and historical sources play an important role in studying the role of public speaking skills in the development of spiritual and moral thinking in society. In this regard, the

views of such commanders and thinkers as Hussein Waiz Kashifi, “Nightmare”, Imam Bukhari, Abu Nasr Farobi, Amir Temur, Abulqasim Zamahshari, Ahmad Yassavi, Alisher Navoi, Zahiriddin Muhammad Babur serve as an important historical source. From time immemorial, in the spiritual and enlightenment life of the East, the art of oratory has been considered as an important tool for the stability of public life.

RESULTS AND DISCUSSIONS

An example of this is the conclusion in the Nightmare, “The best of all human abilities is the ability to speak” [1]. History has many examples that prove that the great orator, the preachers’ appeals served to mobilize the people, performing powerful spiritual unifying functions even in times of peace and war. A study of historical sources shows that in the upbringing of princes, special attention was paid to teaching them eloquence. For example, Mir Alisher Navoi described Sultan Hussein Boykaro’s eloquence in his Majlis un-nafais: [2]. As can be seen, among the many qualities of Hussein Boykaro, his oratory skills are especially recognized. Fakhriddin Ali Safi, the son of Husayn Waiz Kashifi, in his work Latoif ut-tawaif, left rich sources about his father’s activities, including oratory. “One day” writes Fakhriddin Ali Safi, “the famous master of speech, Mawlana Sayyid Ghiyasiddin, came to the meeting much later”. Abdurahman Jami was also



present at the meeting. When Sayyid Ghiyasiddin entered, Jami asked him: "How late are you, Mavlon Giyasiddin?" "Excuse me, Master," said Giyosiddin, "I was on my way, and I fell in love with Hussein Waiz while he was giving a speech in the mosque". Apparently, Hussein Waiz Kashifi's speeches were able to attract anyone with their charm. Of course, the famous preacher Hussein Waiz Kashifi was very famous for his art of preaching. An example of this is a historical event. It is known that on November 8, 1492, the great poet Abdurahman Jami died. At the funeral, Alisher Navoi commissioned Hussein Waiz Kashifi to recite his lament. It is clear that reading the text in a beautiful, fluent, understandable way is also a manifestation of oral culture. At the same time, expressive reading of poetic and prose works, memorization, polishing of words increased the effectiveness of the preacher's speech. The art of public speaking served as a powerful spiritual factor not only in peacetime, but also in times of war, war, and war. As noted above, princes and future commanders were taught the art of public speaking. The king and commander-in-chief inspected his soldiers before the battle and addressed them. This had an ideological impact on the army and inspired the warriors. Later, a special preaching service was established under kings and emirs. For example, Mawlana Nizamiddin Shami, who entered the service of Amir Temur in 1393, also served as a preacher in the military campaigns of Sahibkiran until 1404, preaching sermons to commanders before entering major battles.

Another historical example. Zahiriddin Muhammad Babur gave a speech in front of his army before the battle against the troops of Ibrahim Lodi near Pinipat on the Indian march. His army numbered only 12,000, including women and the elderly. This army was facing an army of 100,000 men, including war elephants, in front of Abraham Ludi. In his pre-war sermon, Babur said that they were strangers and wanderers in this country, and that, God forbid, if they were defeated, they would have nowhere to go and no place to flee. He emphasizes that this battle is a battle of life and death, emphasizes that if they win, they will be martyrs, and if they die, they will be martyred. As a result, his army of 12,000 men will defeat the enemy of 100,000 men. Abdullah Avloni, in his book "Turkish Gulistan or Morality", describes the etiquette of speech as follows: "A word is a balance that measures a person's level and perfection, knowledge and phase. The wise know the thoughts and intentions of the heart, the knowledge and power, the dignity and worth of what one speaks" [3]. Avloni says that a fool is deprived of thought, observation, and is spiritually poor. Hence, science emphasizes that those who have attained eloquence and maturity are extremely intelligent while being skilled orators. Abdullah Qadiri, a well-known writer and speaker on the culture of speech, said: "When the

word is left and the thought is ripe from the jar in it, let it be the basis for a new awning of life! It takes a long time to speak and compose sentences from them" [4], and he also gave a deep meaning to the speech of the characters of his works. As we read his works, we feel the writer's high speaking skills through the speeches of Yusufbek Haji, Otabek, Anvar Mirzo. In the XIX century in Bukhara, Kokand, Khiva khanates, Khorasan and Iran many preachers and masters of speech appeared. An example of this can be seen in the poem "Travelogue" by the poet Muhammad Aminkhoja Muqimi, who lived in Kokand in the XIX century. The poet says that a sermon is being preached in Ultarma, one of the villages of the Ferghana Valley:

I saw a whole campaign,
 Another night covered with a blanket,
 I see five hundred women
 The preacher listens [5].

CONCLUSION

In short, the development of the First and Second Renaissances in our country was given invaluable spiritual power by the art of preaching in the East, the activities of preachers, methods of propaganda. Along with such scholars as Alisher Navoi, Kaykovus, Abu Nasr Farobi, Mahmud Zamahshari, Abu Rayhan Beruni, Ahmad Yugnaki, Mahmud Kashgari, Abdullah Avloni, almost all our scholars, writers and poets in their writings have focused on the value of words, attention to language and speech skills. It is true that a person who speaks beautifully, eloquently and meaningfully does not become a preacher. This art has its own principles and rules, the knowledge and application of which serve to mobilize the spiritual and enlightenment officials to build the foundations of the Third Renaissance by improving their public speaking skills.

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IMPACT OF MACROECONOMIC VARIABLES ON STOCK MARKET PERFORMAMNCE: A REVIEW OF LITERATURE

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ABSTRACT

Of late increasing attention is being paid to the relationship between the stock market and the real economy both by economists and finance specialists. It is in fact hard to imagine a world without stock markets now. In the contemporary scenario, which can be described by increasing integration of the financial markets and implementation of various stock market reform measures in India, the activities in the stock markets and their relationships with the macro economy have assumed significant importance. The present work is an attempt to examine the impact of relationships between macroeconomic variables and the share price index. The purpose is to make a finer point with respect to the relationship between stock market and its determinants.

KEY WORDS: Stock market, Economic variables, Performance, BSE, NSE, Indices

1. INTRODUCTION

Due to ongoing economic upheaval causing stock markets to behave in an erratic and volatile manner, investors need to be aware and be proactive in order to preserve their wealth. No economist or financial analyst would be able to predict the direction the stock markets would take with certainty, but knowing the factors that may have a direct impact on share price could help inspire calm in a financial world wreaked with havoc and chaos. Macroeconomics analyses the behaviour of the aggregate variables. It simplifies the complicated details of the economy using a few basic fundamentals. The core of these fundamentals is the connections among the major markets. The major markets that coordinate the macroeconomic activities are: the goods and services market (product market), stock market, money market, labour market, natural resources market, foreign exchange market, and foreign markets. Decisions in these markets are coordinated through prices. Any change in market demand and supply is reflected in prices. Macroeconomic variables have systematic effects on

stock market returns. Asset prices depend on their exposure to fundamental variables describing the economy. Any systematic variable that affects the economy at the same time affects the return of a single stock and consequently the stock market return as a whole. Thus, these variables are the systematic risk factors. For a better understanding of underlying issues pertaining to the dynamics of macroeconomic variables and stock market, literature have been bifurcated into the two broad categories: Indian Literatures and International Literatures.

2. OBJECTIVES OF THE STUDY

1. To find out the relationship between macro factors and stock market through review of literature.
2. To find out the underlying issues pertaining to the dynamics of macroeconomic variables and stock market from global perspective.
3. To see the impact of impact of each macroeconomic variable on Indian stock market individually.



3. RESEARCH METHODOLOGY

There are many approaches and perspectives in the broad field of relationship between economic variables and stock market research. For the purpose of this article elaboration, we analyzed the contemporary scientific publications and then synthesized the relevant areas, in the historical context. As a supporting method, the progressive summarization was employed, mainly due to phenomena examination. The pertinent information was extracted from the electronic databases resources, as the secondary source of information. This information serves as a base for inductive reasoning and a schema composition which summarizes the findings. The article has a merit of methodological and theoretical layers, especially in the field of finance and economic sciences.

4. LITERATURE REVIEW-BASED STUDY

A. Impact of macroeconomic variables on stock market from Indian perspective

Naka, et. al. (1998) the study analysed relationships among selected macroeconomic variables and the Indian stock market. By employing a vector error correction model, the Analysis finds that three long-term equilibrium relationships exist among these variables. The results suggest that domestic inflation is the most severe deterrent to Indian stock market performance, and domestic output growth is its predominant driving force. After accounting for macroeconomic factors, the Indian market still appears to be drawn downward by a residual negative trend.

Pethe and Karnik (2000) using Indian data for April 1992 to December 1997, attempts to find the way in which stock price indices are affected by and affect other crucial macroeconomic variables in India. The study of course avers that in the absence of cointegration it is not legitimate to test for causality between a pair of variables and it does so in view of the importance attached to the relation between the state of economy and stock markets. The study reports weak causality running from IIP to share price index (Sensex and Nifty) but not the other way round. In other words, it holds the view that the state of economy affects stock prices.

Bhattacharya and Mukherjee (2002) investigated the nature of the causal relationship between BSE Sensitive Index and the five macroeconomic aggregates in India (i.e., IIP, money supply, national income, interest rate and inflation rate) using monthly data for the period 1992- 93 to 2000. By applying the techniques of unit- root tests, co-integration and the long-run Granger non-causality test recently proposed by Toda and Yamamoto (1995), their major findings suggested that there was no causal linkage between stock prices and money supply, national

income and interest rate while IIP lead the stock price, and there was two- way causation between stock price and inflation rate.

Mishra (2004) by using monthly data for the period 1992 to 2002, examined the relationship between stock market and foreign exchange markets using Granger causality test and Vector Auto Regression technique study suggested that there is no Granger causality between the exchange rate return and stock return.

Bhavna (2006) The research investigated the Fama and French three-factor model of stock returns along with its variants, including the one-factor Capital Asset Pricing Model for 79 stocks listed on the BSE-100 stock market index for India. These sample stocks are split into six portfolios sorted on size and book-to-market equity ratio. A strong evidence for the market factor in all the portfolios is being regarded with having highest explanatory power.

Ahmed (2008) studied and found the nature of the causal relationships between stock prices (i.e., Nifty and Sensex) and the key macroeconomic variables (i.e., IIP, FDI, exports, money supply, exchange rate, interest rate) representing real and financial sectors of India. Using quarterly data, Johansen's approach of cointegration and Toda and Yamamoto (1995) Granger causality test have been applied to explore the long-run relationships while BVAR modelling for variance decomposition and impulse response functions has been applied to examine short run relationships. The study indicates that stock prices in India lead economic activity except movement in interest rate which seems to lead the stock prices.

Kanakaraj, et. al. (2008) has examined the trend of stock prices and various macroeconomic variables between the time periods 1997-2007. They have tried to explore upon and answer that if the recent stock market boom can be explained in the terms of macroeconomic fundamentals and have concluded by recommending a strong relationship between the two. The GDP growth in India has grown consistently at high levels touching the highest average from 2003-04 to 2006-07 since Independence, and is strongly backed by manufacturing sector growth and services sector growth.

B. Impact of macroeconomic variables on stock market from International perspective

Fedorova, Wallenius and Collan (2014) This paper studies the impact of euro area macroeconomic announcements on CIVETS (Colombia, Indonesia, Vietnam, Egypt, Turkey, and South Africa) stock markets. The data used is from between 2007 and 2012. Euro area macroeconomic news is shown to affect CIVETS stock market volatility and in some instances the stock returns. Evidence on the impact of overall European macroeconomic news on stock market volatility is found for Colombia, Vietnam, Egypt, and Turkey. European announcements about



GDP, retail sales, and unemployment have a significant effect on the stock returns. According to results, CIVETS stock markets seem to exhibit a negative relationship between market returns and volatility: negative news have a leverage effect for the most of CIVETS stock markets, as greater volatility is generated by negative than by positive shocks.

Fama (1981) the study documented evidence of a strong positive relationship between equity returns and real economic activities such as industrial production, capital expenditures and Gross National Product (GNP), while a negative relationship was found between the share market returns and inflation in the US market. Following Fama (1981), Chen et al. (1986) documented that macroeconomic variables such as industrial production, changes in the risk premium and variations in the yield curve were significant factors in explaining the stock returns.

Feldstein (1983) this paper exhibits a crucial cause of the share prices to rise during decade of substantial inflation during the period of 1967- 1976 had been studied to understand the structural relation between the inflation and share prices. An explicit portfolio model could derive asset demand equations from expected utility maximisation and could recognise the indirect ways for the individual to hold assets in a tax favour way.

Chen et., al. (1986) the study tests whether innovations in macroeconomic variables are risks that are rewarded in the stock market. Financial theory suggests that the following macro-economic variables should systematically affect stock market returns: the spread between long and short interest rates, expected and unexpected inflation, industrial production, and the spread between high- and low-grade bonds. The analysis finds that these sources of risk are significantly priced. Furthermore, neither the market portfolio nor aggregate consumption is priced separately. They also find that oil price risk is not separately re-warded in the stock market.

Kaul (1987) this paper explores that the relation between stock returns and inflation is caused by the equilibrium process in the monetary sector. More importantly, these relations vary over time in a systematic manner depending on the influence of money demand and supply factors. Post-war evidence from the United States, Canada, the United Kingdom and Germany indicates that the negative stock return inflation relations are caused by money demand and counter-cyclical money supply effects. On the other hand, pro-cyclical movements in money, inflation, and stock prices during the 1930's lead to relations which are either positive or insignificant.

Sadeghi (1992) paper explored the empirical evidence on the relationship between astonishing changes in macroeconomic variables and Australian stock returns over the period 1980-1991. The results

suggest that stock returns are positively correlated with any surprise news in the current account deficit, the exchange rate and growth rate of real GDP, and negatively correlated with surprise news about the inflation rate and interest rates. Stock returns are also positively correlated with the unexpected unemployment rate and negatively correlated to revisions in the expected unemployment rate. The results additionally suggest that market portfolios can notice the impact of common economic shocks better than the portfolios of the two main subsectors.

Abugri (2006) this paper gave a noble discussion about the dynamics of macroeconomic variables like exchange rates, interest rates industrial production and money supply in four Latin American countries significantly explain stock market returns. By using vector autoregressive (VAR) model, the study signifies that the global factors are consistently important in explaining the returns in all the markets.

C. Studies investigating the relationship between Inflation& Stock Market

Kaul and Seyhun (1990) in a paper on "Relative Price Variability, Real shocks, and the Stock Market" investigate the effects of relative price variability on output and stock returns and gauge the extent to which inflation proxies for relative price variability in stock return-inflation regressions. The evidence shows that the negative relations between stock returns and expected and unexpected inflation proxy for the negative effects or relative price variability on the stock market.

Henry (2002) in his paper on "Is Disinflation Good for the Stock Market?" finds that the stock market appreciates by an average of 24 percent in real dollar terms when countries attempt to stabilize annual inflation rates that are greater than 40 percent. In contrast, the average market response is 0 when the pre-stabilization rate of inflation is less than 40 percent. These results suggest that the potential long-run benefits of stabilization may dominate short-run costs at high levels of inflation, but at low to moderate levels of inflation, benefits may be offset by costs in a present value sense.

Dupor and Conley (2004) in a paper on "The Fed Response to Equity Prices and Inflation" studies how Federal Reserve interest rate policy, from 1979-2004, responds to an aggregate measure of stock market activity under high versus low inflation. Two conventional findings of research are that the federal Reserve: 1) raises the short-term real interest rate in response to inflation and (ii) does not change policy in response to equity price movements. The findings of the researchers confirm (i) and (ii) for the high inflation period. However, during the low inflation period, the conclusions are different.



Hondroyiannis and Papapetrou (2006) in a paper on “Stock returns and inflation in Greece: A Markov switching approach” studied the dynamic relationship between real stock returns and expected and unexpected inflation utilizing a Markov Switching vector autoregressive model (MS-VAR). The empirical evidence suggests that real stock returns are not related to expected and unexpected inflation and this result is independent of the method used to separate inflation into the two components. Rather, the results suggest that stock market movements are regime dependent, implying that stock market performance is not predictable.

Chao Wei (2006) used VAR results to advocate in inflation illusion as the explanation for the positive association between in inflation and the dividend yield. Contrary to their results, we find that a fully rational dynamic general equilibrium model can generate a positive correlation between the dividend yield and inflation of comparable size to its data counterpart. The model results support a proxy hypothesis, according to which, a third factor, which in our model represents technology shocks, moves both inflation and the dividend yield in the same direction, resulting in a positive correlation between the two.

D. Studies investigating the relationship between GDP & Stock Market

Comincioli and Wesleyan's (1996) findings in a paper on “The Stock Market as a Leading Indicator: An Application of Granger Causality” indicates a "causal" relationship between the stock market and the economy. We found that while stock prices Granger-caused economic activity, no reverse causality was observed. Furthermore, we found that statistically significant lag lengths between fluctuations in the stock market and changes in the real economy are relatively short. The longest significant lag length observed from the results was three quarters.

Humpe and Macmillan (2005) analysed the extent to which macroeconomic variables explained stock market movements in the US and Japan. Using a log-linear model, they found that a 1 percent increase in industrial production triggered a 1.09 per cent increase in US stock prices whilst a 1 per cent increase in Japanese industrial production triggered a 0.4 per cent increase in Japanese stock prices. Both parameters were highly statistically significant.

Hong, Torous and Valkanov (2007) in a paper on “Do industries lead stock markets? investigated whether the returns of industry portfolios predict stock market movements. In the US, a significant number of industry returns, including retail, services, commercial real estate, metal, and petroleum, forecast the stock market by up to two months. Moreover, the propensity of an industry to predict the market is correlated with its propensity to forecast various indicators of

economic activity. The eight largest non-US stock markets show remarkably similar patterns. These findings suggested that stock markets react with a delay to information contained in industry returns about their fundamentals and that information diffuses only gradually across markets.

Gevit Duca (2007) observed unidirectional causality between GDP and stock prices implies that the level of economic activity in a country, can potentially depend on the stock market amongst other variables. The observed phenomenon hinted in the introduction, that long periods of weaknesses such as the Great Depression and the ‘lost decade’ in Japan are identified with the asset-price busts that preceded them, could therefore be no mere coincidence. The significant contraction in asset values, triggered a subsequent contraction in consumption and economic activity levels. Hence a large downfall in stock prices caused a similar decrease in economic activity.

E. Studies investigating the relationship between Exchange Rate & Stock Market

Bhattacharya & Mukherjee (2002) was conducted a study on “Causal Relationship Between Stock Market and Exchange Rate, Foreign Exchange Reserves and Value of Trade Balance: A Case Study for India.” This paper investigates the nature of the causal relationship between stock prices and macroeconomic aggregates in the foreign sector in India. By applying the techniques of unit-root tests, co-integration and the long-run Granger non-causality test, the study tests the causal relationships between the BSE Sensitive Index and the three macroeconomic variables, viz., exchange rate, foreign exchange reserves and value of trade balance using monthly data for the period 1990-91 to 2000-01. The results suggest that there is no causal linkage between stock prices and the three variables under consideration.

Nath and Samanta (2003) in a paper on “Relationship Between Exchange Rate and Stock Prices in India – An Empirical Analysis” empirically showed that generally returns in these two markets are not interrelated, though in recent years, the return in stock market had causal influence on return in exchange rate with possibility of mild influence in reverse direction. These results have opened up some interesting issues regarding the exchange rate and stock price causal relationship. In India, though stock market investment does not constitute a very significant portion of total household savings compared to other form of financial assets, it may have a significant impact on exchange rate movement as FII investment has played a dominant role. The results, however, are tentative and there is a need to undertake an in-depth research to address the issue.

Kasman (2003) in his paper on “The relationship Between Exchange Rates and stock prices: A



Causality Analysis” suggests that the macroeconomic variables move together in the long-run but variation in exchange rates do not cause a variation in three indices of the ISE. The results of this paper also indicate that change in exchange rate causes, in Granger sense, change in industry sector index.

Tahir and Ghani (2003) in a paper on “Relationship Between Exchange Rates and Stock Prices: Empirical Evidence from Bahrain’s Financial Markets: examined the relationship between stock prices and exchange rates in Bahrain using monthly data from January 1992 to October 2002. Co-integration and ECM models and Granger causality tests were used to determine the causal relationship between stock prices and exchange rates. The empirical results suggest long-run bidirectional causal relationship between stock prices and exchange rates (British Pound & Japanese Yen) and only uni-directional, from stock prices to exchange rate, causal relationship between them.

F. Studies investigating the relationship between FII’s& Stock Market

Kohli (2001) in her paper on “Capital Flows and their Macroeconomic Effects in India” attempts to analyse the patterns and trends in capital flows into India in the 1990s and how these have affected the key macroeconomic variables in the economy. It also attempts to study the response of the policy makers to the new challenges posed by the partial capital account liberalisation. The paper finds that an inflow of foreign capital during this period has resulted in real exchange rate appreciation and has had a significant impact on domestic money supply.

Chakrabarti (2001) found that the FII net inflows were not only correlated with the return in Indian equity market but was more likely the effect than the cause of the Indian equity market return. FIIs did not appear to be at an informational disadvantage compared to domestic investors in the Indian markets. Furthermore, the Asian crisis marked a regime shift. In the post-Asian crisis period, the return in the Indian equity market turned out to be the sole driver of the FII inflow, while for the pre-Asian crisis period, other covariates reflecting return in other competing markets were also correlated with FII net inflow.

Mukherjee, Bose and Coondoo (2002) explored the relationship of daily FII flows to the Indian equity market for the period January, 1999 to May, 2002 with two types of variables. The first type included variables reflecting daily market return and its volatility (representing risk) in domestic and international equity markets, based on the BSE Sensex, S&P 500 and the MSCI WI, as well as measures of co-movement of returns in these markets (the relevant betas). It is also seen that return from exchange rate variation and fundamentals of the Indian economy may have some influence on FII decisions, but such

influence does not seem to be strong, and finally, daily FII flows are highly autocorrelated and this autocorrelation cannot be accounted for by all or some of the covariates considered in the study.

Kulwant Rai& N R Bhanumurthy (2003) in their paper on “Determinants of Foreign Institutional Investment in India: The role of Return, Risk and Inflation” studies the determinants of Foreign Institutional Investments in India, which had crossed almost US\$ 12 billion by the end of 2002. In this study, by using monthly data, they found that FII inflow depends on stock market returns, inflation rate (both domestic and foreign) and ex-ante risk. In terms of magnitude, the impact of stock market returns and the ex-ante risk turned out to be major determinants of FII inflow. This study did not find any causation running from FII inflow to stock returns as it was found by some studies. Stabilizing the stock market volatility and minimizing the ex-ante risk would help in attracting more FII inflow that has positive impact on the real economy.

G. Studies investigating the relationship between Interest Rates & Stock Market

Keungwong, Khan and JunDu (2003) in a paper on “Do Money and Interest Rates Matter for Stock Prices? An Econometric Study of Singapore and USA” examines the long-term as well as short-term equilibrium relationships between the major stock indices and selected macroeconomic variables (such as money supply and interest rate) of Singapore and the United States by employing the advanced time series analysis techniques that include cointegration, Johansen multivariate cointegrated system, fractional cointegration and Granger causality. The cointegration results based on data covering the period January 1982 to December 2002 suggest that Singapore’s stock prices generally display a long-run equilibrium relationship with interest rate and money supply (M1) but a similar relationship does not hold for the United States.

Bernanke and Kuttner (2005) on “What Explains the Stock Market’s Reaction to Federal Reserve Policy?” has documented a relatively strong and consistent response of the stock market to unexpected monetary policy actions, using Federal funds futures data to gauge policy expectations. We find that, on average, a hypothetical unanticipated 25-basis-point cut in the Federal funds rate target is associated with about a 1% increase in broad stock indexes. The result is robust to the exclusion of outliers and to the choice of windows for measuring the stock market’s response.

Thorbecke (1997) in a paper on “On Stock Market Returns and Monetary Policy” have addressed the question that whether monetary policy is neutral by examining how stock return data respond to monetary policy shocks. Theory posits that stock



prices equal the expected present value of future net cash flows. Thus, evidence that positive monetary shocks increase stock returns indicates that expansionary monetary policy exerts real effects by increasing future cash flows or by decreasing the discount factors at which those cash flows are capitalized. Using several measures of monetary policy and a variety of empirical techniques, this article presents evidence that monetary policy exerts large effects on ex-ante and ex-post stock returns.

Adrienne, Kearney and Lombra (2004) in a paper on "Stock Market Volatility, The News, And Monetary Policy" investigates the dynamic relationship linking the volatility of equity prices with "the news" and the expected path for monetary policy. Previous results that link the impact of the news about real activity to changes in current and future interest rates are employed in developing a positive link between changes in volatility and the news. Empirically, our results uncover a positive and statistically significant response of the Chicago Board Options Exchange (CBOE) volatility index, VIX, to unanticipated changes in employment, but not to inflation. Hence, agents' expectations for the policy response to news have an important influence on the expected volatility of stock prices.

H. Studies investigating the relationship between Oil Prices & Stock Market

Jones and Kaul (1996) in their paper on "Oil and the Stock Markets" test whether the reaction of international stock markets to oil shocks can be justified by current and future changes in real cash flows and/or changes in expected returns. They find that in the post-war period, the reaction of United States and Canadian stock prices to oil shocks can be completely accounted for by the impact of these shocks on real cash flows alone. In contrast, in both the United Kingdom and Japan, innovations in oil prices appear to cause larger changes in stock prices than can be justified by subsequent changes in real cash flows or by changing expected returns.

Driesprong, Jacobsen and Maat (2004) in a paper on "Stock Markets and Oil Prices" report evidence that investors in stock markets under react to oil price changes in the short run. As a consequence changes in oil prices predict future stock market returns: a rise in oil prices, lowers future stock market returns.

Ravichandran & Alkhathlan (2010) investigates the impact of oil Prices on Gulf Cooperation Council (GCC) stock markets. Since GCC countries are major suppliers of oil, their stock markets are likely to be susceptible to change in oil prices. The results confirm that there is an influence of oil price change on GCC stock markets returns in the long-term. Long term is defined here as the period of time required for the effect of oil price changes to work out its way to influence major macroeconomic indicators that

influence profitability of firms traded in GCC stock markets.

Ansar and Asghar (2013) analysed the impact of oil prices on the Consumer Price Index (CPI) and Stock market (KSE-100 Index) in Pakistan for the period 2007 to 2012. To analyse the impact of the oil prices Johansen cointegration Test is used which indicate the positive relationship among oil price, CPI and KSE-100 Index, though the relationship is very strong relationship but it helps in concluding that oil prices have effect on CPI and KSE-100 Index.

5. FINDINGS

Stock markets of emerging economies are prone to factors viz. changes in the level of economic activities, changes in the political and international economic environment and also related to the changes in other macroeconomic factors.

If stock prices reflect the underlying fundamentals, they are expected to be adopted as leading indicators of future economic activities. Hence, dynamic interactions and causal relations among stock prices and macroeconomic variables are imperative to the formulation of macroeconomic policy of a country.

If stock prices accurately reflect the underlying fundamentals, then the stock prices should be employed as leading indicators of future economic activities, and not the other way around. Therefore, the causal relations and dynamic interactions among macroeconomic variables and stock prices are imperative to the formulation of macroeconomic policy.

6. RESEARCH GAP

All the research focuses only on the stock market of India which could be extended for other developing and developed countries too. Moreover, there could have a comparative analysis of Indian Stock Market and the stock markets of other countries.

All the studies only mention the impact macroeconomic variables on stock market as a whole in India. But no studies have been found on impact of macroeconomic variables on different sectoral indices in India.

7. CONCLUSION

With the opening up of emerging economies and manifestation of liberalized policies during last few decades, stock markets of such economies are witnessed as volatile markets compared to their counterparts. Further, stock markets of emerging economies are prone to factors viz. changes in the level of economic activities, changes in the political



and international economic environment and also related to the changes in other macroeconomic factors. Generally, growth rate in gross domestic product; rate of inflation; rate of interest; fiscal position and exchange rate are considered as barometers of measuring the performance of the economy and are the major determinants of the growth of an economy.

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ANALYTICAL STUDY OF THE EMPOWERMENT OF SCHEDULED TRIBE WOMEN IN PRIs

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ABSTRACT

In India, scheduled tribe women have been marginalised in each sphere of life since several centuries. Discernment against women is commonly observed in providing opportunities of socio-economic development, participation in different activities and development programmes and availing the opportunities of various facilities due to prevailing several social and cultural backwardness. There are lot of restrictions are also imposed on participation of scheduled tribes' women in certain political, social and cultural sphere. Due to these underlined problems imposed by our traditional form of society against women their participation in different economic activities like education, employment, political system etc. have remained very poor even after seven decades of independence.

Post 73rd amendment, the introduction of reservation policy in favour of Scheduled Tribes women in the Panchayati Raj Institution clearly specified that the government intervention for increasing the participation of scheduled tribes women in different activities at Gram Panchayat levels and thereby to progress their socio-economic status. In this light, the present study has attempted to examine various issues related to the implementation pattern of reservation policy and its awareness among women, the nature of participation of scheduled tribes' women members in different meetings, activities and various development programmes of Gram Panchayats, social reform and welfare activities. This research carried out at Nanded and Hingoli Districts in Marathwada region of Maharashtra State.

KEYWORDS : Scheduled Tribe, Women, Local Self Government, Leadership, Gram Panchayat

INTRODUCTION

Since independence, various initiatives have been undertaken for improving the socio-economic conditions and empowering women in India. In this context, the Constitution guarantees socio-economic and political equality and the provision of equal rights for availing different opportunities to all social groups of population, especially scheduled tribes women. Increasing emphasis has also been placed on initiating variety of development schemes and welfare programmes for maximizing the participation of scheduled tribes' women in different activities. Various legal reforms and resolutions in the form of social Acts have also been introduced to improve the social status and empowerment of scheduled tribes' women in the Indian social system.¹ However, little progress has been visualized in the participation of women in different activities.

The term 'Scheduled Tribe' first appeared in the constitution of India. Article 366(25) defined Scheduled Tribes as "such Tribes or Tribal community or parts of or a group within such Tribes or Tribal community as are deemed under Article 342 to be Scheduled Tribe for the purpose of the constitution". Article 342 prescribes procedure to be

followed in the matter of specification of Scheduled Tribes. As per the census of India 2011, there are about 104281034 Schedule Tribe persons in India, which constitute about 8.62% of India's total population. Out of which 5.2 crore are male and 5.1 are females.²

Political exclusion of women, Scheduled Tribes and other deprived sections of the population is closely related to their marginal status in different domains of life space. A long history of exclusion from political power needs many favourable conditions to struggle for the dominant social order. Although generalisations regarding the nature of constraints on tribal women are not desirable, there are certain factors that are fundamental in achieving political power. These include sustainable development, pro-tribal policies, access to resources, and human resource development. While tribal women were living at subsistence levels it is more likely that they do not exhibit the 'ideal' level of political efficiency. These women were most concerned with meeting basic survival needs. Their geographical isolation compared to the non-tribals adds to the already existing constraints, separating them from the larger socio-economic canvas, and reducing their access to resources, information and



knowledge.

Tribal women's inclusion in local governance has often been inflated as political empowerment. Part of the reason for this is that the reservation of seats is not considered as a means to enable political participation. It is rather seen as an end in itself. However, changes in women's political role are not automatic. By itself the reservation for Scheduled Tribes or other disadvantaged sections has limited potential³. But it manifested the increase number of scheduled tribe women in political arena.

OBJECTIVES OF THE STUDY

- 1) To study and assess the level of awareness of the elected scheduled tribes women members about their roles and responsibilities and various development programmes.
- 2) To study the involvement of elected scheduled tribes women members in decision making.
- 3) To study the problems and difficulties faced by the elected scheduled tribes women representatives of Gram Panchayats.
- 4) To suggest suitable measures for the empowerment of women in Gram Panchayats.

METHODOLOGY

In Maharashtra the Panchayati Raj System is based on three tier system, Zillah Parishad (Z.P.), Panchayat Samiti and Grampanchayat. This study is focused on the basic tier i.e., Gram Panchayat. In this study, empirical methods have been adopted. Descriptive element is included. An unstructured questionnaire had been administered by way of interview to the elected scheduled tribes' women representatives of the twenty five, selected Gram Grampanchayat, five Panchayat Samiti and four Zillah Parishad in Nanded and Hingoli District of Marathwada Region in Maharashtra. A sample of 255 women members of gram Panchayats was randomly drawn from the members list of 32 gram Panchayats. Another sample of 40 male members and 30 officials was also randomly drawn from the same member's list to study the attitude of men towards women. The individual profile is derived by looking at factors such as age, caste, religion, marital status, type of the family, educational level, occupation and annual income of the respondents. The observation of the Gram Panchayat meetings and discussions with officers and elected scheduled tribes' women representatives at various levels have been made along with collection of data from Primary Sources. The elected male representatives and officials of the thirty-two selected Gram Panchayats have also been interviewed.

The selection of respondents was through random sampling. The sample covered a cross-

section of the elected male representatives and officials aimed at collecting information on their knowledge, experiences and views about the functioning of the scheduled tribes' women representatives in the Gram Panchayats.

SCHEDULED TRIBE WOMEN IN PANCHAYATI RAJ SYSTEM

The state of Maharashtra already had the Mumbai Gram Panchayat Act, 1958 and the Maharashtra Panchayat Samiti and Zillah Parishad Act, 1961. However, with the enactment of the 73rd Amendment Act, 1993, the state Act had to be altered to make it conform to the central Act and to incorporate its different provisions. Thus, on 22nd April, 1994 both the Acts were amended to be consistent with the central Act thereby according it a constitutional status in Maharashtra. On 23rd April, 1994 the amended Mumbai Gram Panchayat Act, 1958 and the Maharashtra Panchayat Samiti and Zillah Parishad Act, 1961 came into force in Maharashtra. Most of the provisions of the central Act such as the reservation for SCs, STs OBCs and women, election procedures etc. have been incorporated in the Mumbai Gram Panchayat Act, 1958 and the Maharashtra Panchayat Samiti and Zillah Parishad Act, 1961.

The 73rd Constitutional Amendment in which a provision has been made for 33.33 per cent women's reservation is an act of positive discrimination. It has not only unpacked gender relations but also transformed the quality and thrust of local self-government. It provides opportunities for women to assert their rights over resources and have a definite say in the development process. While it enables women to develop a greater understanding of the political structures and systems of governance and how to participate in Panchayat.

Empowerment is a process by which marginalized groups recognize their powerlessness and address deprivation and discriminations in their individual capacities as well as through collective bargaining. It is also defined as a process that fosters power (that is the capacity to implement) in people for use in their own lives, their own communities and in their own society, by acting on issues that they describe as important. Above all, empowerment is the result of participation in decision-making⁴. Government introducing the reservation policy of 33% under 73rd amendment act for women could be an important initiative of awareness for maximizing the role, responsibilities and participation of women in Gram Panchayat.

FINDINGS

While analysing the responses its has been recorded that 65% Scheduled Tribe Women who are working as sarpanch agreed that they belong to non-



political background whereas 25% agreed that they have political background. 65% Scheduled Tribe Women agreed that there is no financial aspect in election, whereas 30% agreed that financial aspect is important in election. While asking on the reservation policy in local self-government empowered the Scheduled Tribe Women, 79% favoured the statement whereas 6% were against the statement and 15 % refused to response on this.

The decision-making process is important in local self-government. Authorities have to take ample of decision to smoothen the process and help people in their livelihood. 79% ST women agreed they got freedom in decision making process, where as 7% women reacted that they do not have freedom in decision making. Increasing awareness among Scheduled Tribes about administration, scheduled tribe sarpanch women are in position to take their individual decision without support of their relatives.

When it comes to implement developmental plans, 77% scheduled women agreed that they can implement plans as a leader for holistic development of village but 12% disagree on this opinion. 69% respondents agreed that society accepted Scheduled Tribe Women as their leader wherein 21% respondents shared that society do not accept them as a leader and rest 10% denied to response on this question.

78% respondent accepted that they have knowledge of different government schemes and 12 % respondent leaders do not have the knowledge on different government schemes. Governments continuously allocating various funds for the development of gram panchayat. The distribution of these funds by government must be on equal level, 60% agreed that distribution is equal and 25% denied the equal distribution of government funds and 15% agreed partially on this statement. 70% scheduled tribe leader women knows how to utilize the government fund and 11% were not able to explain how to utilize the government fund. 65% responded that they are getting appropriate support from administration to implement policies, rules and regulations but 25% denied this point and criticized the government officials for not supporting to run administration smoothly.

It can be observed that the impact of the policy of reservation for Scheduled Tribe women at the PRIs has been a mixed one. Majority of women are first timers and constrained by centuries old factors. We cannot expect miracle overnight. Women despite working against the several constraints have shown outstanding. The experience shows that scheduled tribe women are capable of providing leadership to the people if they are given time, support, resources, training and freedom from man.

SUGGESTIONS

It has been observed that Political Awareness Programmes can make scheduled tribe women aware about their rights and the benefits. There is need for regular orientation and training programmes that will help to increase the political and management skills of women in panchayats. Participatory approaches need to be adopted. There must be expansion of structure of information, education and development of communication skills for scheduled tribe women. Contribution by women members should be recognized and appreciated in public spheres. Gender discrimination should be minimized or avoided. The reservation policy for women should be continued to ensure their empowerment through greater participation in political administration and decision making.

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SOME FEATURES OF TEACHING A FOREIGN LANGUAGE AT A TRANSPORT UNIVERSITY

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ABSTRACT

This article examines the linguistic aspects as one of the main ones that develop the communicative competence of intercultural communication.

KEYWORDS: *linguistic aspect, communicative method, motivation, foreign language, communication, methodology.*

Некоторые особенности преподавания иностранного языка в транспортном вузе

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Аннотация

В данной статье рассматриваются языковые аспекты как один из основных, развивающих коммуникативную компетенцию межкультурной коммуникации.

Ключевые слова: *языковой аспект, коммуникативный метод, мотивация, иностранный язык, коммуникация, методика.*

Teaching a foreign language includes various aspects. All of them are important in planning and preparing materials for classes. This article proposes to consider the linguistic and cultural aspect in teaching English at a technical university. The culture of English-speaking countries is inextricably linked to our daily life. Reading foreign literature, communicating with foreigners, traveling abroad, we inevitably face a problem based on different thinking of people and nations, expressed through language, its grammar, vocabulary, phraseology, syntax. For a long time in Russia there was a strong tradition of teaching living languages as dead, as if you would never have to speak them. The openness of modern Russian society has radically changed the approach to teaching: the emphasis has shifted from abstract schemes and reading abstract

texts to concrete speech situations, to immersion in live communication. It should be noted that the linguistic and cultural aspects were taken into account when teaching the language before, but right now it is necessary to bring them to the fore.

So, what is the linguistic and cultural aspect, and why is it a part of learning a foreign language? The linguistic and cultural aspect is a direction, on the one hand, which includes teaching a language, and on the other, giving certain information about the country of the target language. The main goal of this aspect is to ensure communicative competence in intercultural communication, primarily through an adequate perception of the interlocutor's speech and understanding of the original texts.

When studying a foreign language, students are faced with a number of facts related not only to the



field of vocabulary, grammar, stylistics, but also to the social, everyday or historical sphere. The leading task of the linguistic and cultural direction is the study of linguistic units that most clearly reflect the national characteristics of the culture of the people - the native speaker, that is, the realities (designations of objects and phenomena characteristic of one culture and absent in another).

Our ideas about other peoples and countries are formed on the basis of stereotypes. Such stereotypes can be conveyed through keywords and concepts, and this is how the linguistic picture of the world reflects its cultural picture.

However, language not only passively reflects culture, but also shapes personality and national character. L.V.Shcherba has repeatedly written about the enormous general educational significance of foreign languages. In his opinion, "a person who has not studied foreign languages cannot become a person with a broad outlook, since it is difficult for him to get out of a limited range of concepts, thoughts, tastes." He also attached great importance to the comparison of the two language systems and their mutual influence. It is in the comparison of two language systems - native and foreign - that it becomes possible to "free thought from the captivity of the word" [1].

Knowledge of any foreign language is the key to the culture of the people speaking that language. Language is not only a means of communication and expression of thought, but also the perception of cultural values. The language reflects the experience of the people, its history, material and spiritual culture. The reality of this time, we can call multicultural, when there is communication between people belonging to peoples who speak different languages. The mutual influence and interpenetration of cultures is the reason for the predisposition of different peoples to dialogue. Language teaching, combined with familiarization with the historical and ethnographic features of the country of the target language, can and should become a powerful means of mutual understanding between peoples. Also, the formation of linguistic and linguistic and cultural competence is valuable for enriching one's own culture: communication, speech, mental work.

The language of a people and its culture are phenomena that are inextricably linked. The idea of the need to go beyond language and turn to the simultaneous study of history, ethnography and culture of the people has deep historical roots. Fayziev K.N and Juraev A.T. in their work "Language and Culture" said: "The thesis of the sociality of language should be understood as the dialectical unity of language and culture, language and society. At any moment in the development of culture, the language serving it reflects it fully and adequately" [2].

The thesis of the indissoluble unity of language and national culture has always been taken into account by advanced teachers in their practice. However, a broad mass of teachers tend to view the study of a foreign language as mastering the grammatical system. There are quite a few textbooks in which the educational material is presented in such a way that it forces students to cram separate words and mechanically train grammatical phenomena.

Unfortunately, given the growing interest in the culture, history and ethnography of the target language countries, teaching is still focused on forms of expression.

Methodologists from many countries also made statements that language teaching should be built as a simultaneous course of national culture and civilization. In this regard, we can quote the saying of the French methodologist J. Lacer: "Whatever the textbook or teaching method, it is information about culture that primarily constitutes the main wealth of education. The teacher should not be limited to narrow language goals. Without resorting to cultural phenomena, language learning becomes impoverished and is reduced to the assimilation of phonetic, lexical and grammatical phenomena. Of course, it is necessary to pay great attention to mastering the speech mechanisms, but the teacher should not forget the golden rule: there is no need to teach to speak if there is nothing to say."

In our country, the linguistic and cultural approach was first applied by E.M. Vereshchagin and V.G. Kostomarov (in relation to Russian as a foreign language), who believed that students should get acquainted with a new culture for them directly in the process of learning a foreign language. The course of studying this subject should not be limited only to lexical and grammatical knowledge, it should prepare students for intercultural communication and ensure its success, as well as form their linguistic and cultural competence.

Linguistic and cultural competence is an integral part of the professional and communicative competence of a specialist.

Thus, we must remember that the main platform that unites the methodology of teaching foreign languages at school and university is the category of communication. It is communicativeness that "orients towards the inclusion of students in the direct act of communication with each other (or with a teacher) to solve life problems arising in the course of" changing reality "... It makes us look differently at some of the traditional provisions of the methodology" [3].

The first line in the rating of popularity of methods is actively held by the communicative one. The communicative technique, as its name implies, is aimed precisely at the possibility of communication. Of the 4 aspects on which any language training is based (reading, writing, speaking and listening



comprehension), the latter two receive increased attention. Oral speech of any literate person is quite different from written speech.

However, it would be a mistake to think that the communicative method is intended only for light small talk. Those who want to be a professional in a particular field regularly read publications on their topic in foreign publications. Possessing a large vocabulary, they can easily navigate the text, but it costs them enormous efforts to maintain a conversation with a foreign colleague on the same topic. The communicative method is designed, first of all, to remove the fear of communication. A person armed with a standard set of grammatical structures and a vocabulary of 600-1,000 words can easily find a common language in an unfamiliar country. However, there is also a downside to the coin: cliché phrases and a poor vocabulary. Add to this a lot of grammatical mistakes, and you will understand that the only way not to be considered, shall we say, stupid interlocutor, is increased attention to partners, knowledge of etiquette and a constant desire to improve.

One of the most serious and comprehensive methods of learning a foreign language is linguistic and cultural, which involves an appeal to such a component as the social and cultural environment. Proponents of this method firmly believe that a language loses its life when teachers and students aim to master only "lifeless" lexical and grammatical forms. Someone remarked that "personality is a product of culture." Language too. And our language mistakes confirm this most convincingly.

The linguistic and cultural method includes two aspects of communication - linguistic and intercultural. Our vocabulary has been replenished with the new word bicultural - a person who is easily guided by national characteristics, history, culture, and customs of the two countries. For a student of a technical university, it is not so much a high level of reading, writing, and translation that is important (although this is by no means excluded), but "linguistic and cultural competence" - the ability to examine a language under the microscope of culture [4].

So, summing up, it can be argued that the linguistic and cultural aspect is simply necessary in teaching a foreign language and as a factor in increasing students' motivation to learn a language. After all, every student who has chosen such an organic and holistic approach should treat the language as a mirror reflecting the geography, climate, history of the people, their living conditions, traditions and way of life, everyday behavior, creativity. The study of culture, history, realities and traditions, in turn, contributes to the formation of a positive attitude towards a foreign language, the culture of the people who are the native speakers of

this language, there is a constant comparison of the elements of culture and life of the native country and the countries of the studied language, the concept of the role of language as an element of culture is formed people and the need to use it as a means of communication.

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EDUCATION THROUGH TELEVISION - A DEMAND OF MODERNITY

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ANNOTATION

This article notes that television education plays an important role in mastering the foundations of science, developing competencies, developing independent, creative work and thinking.

KEYWORDS: TV, broadcast, television education, educational effectiveness, quality of education, process approach, foreign pedagogy, national pedagogy, competence approach, innovative technology.

ОБРАЗОВАНИЕ ЧЕРЕЗ ТЕЛЕВИДЕНИЯ –ТРЕБОВАНИЕ СОВРЕМЕННОСТИ

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Аннотация

В этой статье отмечается, что телевизионное образование играет важную роль в освоении основ науки, развитии компетенций, развитии самостоятельной, творческой работы и мышления.

Ключевые слова: телевидение, трансляция, телевизионное образование, образовательная эффективность, качество образования, процессный подход, зарубежная педагогика, национальная педагогика, компетентностный подход, инновационные технологии.

Обеспечение качества - это главный критерий, определяющий уровень функционирования системы, ее требования, потребности и признание. Реформа образования предъявляет высокие требования к учителям. Совершенствование содержания образования, подготовка конкурентоспособных кадров, компетентностный подход к организации учебного процесса, эффективное использование ИКТ и инновационных технологий обучения, сотрудничество на основе партнерской

педагогике, разработка инновационных методов повышения качества и эффективность обучения. повернулся.

Использование понятия «качество» в процессе обучения имеет особое значение. Качество образования определяется ДТС, квалификационными требованиями, а также его реализацией и действительностью. Качество образовательного процесса в каждой стране зависит от внутренних и внешних факторов. В то время как внутренний фактор представляет



уровень развития системы образования страны в соответствии с развитием страны, внешние факторы связаны с международными требованиями к управлению качеством.

Одним из ключевых факторов обеспечения качества образования является организация эффективного учебного процесса. В зависимости от курса и формы обучения важно правильно подобрать педагогические и инновационные технологии. Качество урока зависит в первую очередь от грамотной компетентности учителя, широкого кругозора ученика, высокого мышления и интеллектуальных способностей. Интернет-обучение и электронное обучение сегодня становятся все более популярными. Обучение по телевидению удобнее и эффективнее. Видно, что телевидение широко используется в образовательных системах как средство обучения.

Визуальные медиа для учителей иностранных языков уже стали дополнительной составляющей учебного процесса. Примеры из текущего исследования показывают преимущества использования телевидения в образовании.

Телевидение предоставляет информацию различными способами: не только в виде изображений, но также в движении, голосом и синхронизированным текстом. Большое количество аудио- и визуальной информации делает обучение более эффективным, то есть каждая из них дополняет друг друга.

Когда просмотр - это активный процесс, и цель дисплея - добиться более глубокого и совершенного эффекта.

Видеть - значит верить, но также помнить. Когда у человека есть память, он будет помнить больше. В памяти сохраняется в два раза больше информации, которую можно увидеть и услышать. Исследователи приходят к выводу, что человеческая память следующая:

- 10% при чтении
- 20% при прослушивании;
- 30% при просмотре;
- 50% информации запоминается при просмотре и прослушивании.

Преподавание русского языка и литературы по телевидению, анализ вопросов языка и литературы - ключевой фактор в формировании высокой духовности. Преподавание русского языка по телевидению также является важным инструментом повышения статуса иностранного языка. Следующие преимущества телевидения в обучении русскому языку:

- Телевидение - одно из самых популярных (политических, культурных, научных и образовательных) средств распространения информации. Государственный язык отражается

на телевидении. Языковые шоу помогают развивать разговорные навыки и коммуникативные навыки; - Правильное использование телепрограмм может оптимизировать управление образованием и содержанием русского языка. По этой причине телевидение является не только источником социальной информации для аудитории, но и средством распространения общечеловеческих культурных ценностей;

- Телевидение - пропагандист национальных ценностей. Национальные и культурные особенности выражаются прежде всего в языке. Языковые шоу и уроки грамотности играют важную роль в воспитании духовно зрелого и духовно зрелого поколения.

Необходимо создать отдельный телеканал и научный канал для обучения и подготовки вышеупомянутых телеканалов и организовать их по четкому графику. Необходимо решить кадровую проблему при организации образовательных программ на телевидении. Для этого необходимо привлечь опытных, образованных и грамотных учителей из школ, академических лицеев и высших учебных заведений, создать необходимые условия для телевидения. По каждому предмету потребуются создать отдельные классы и предоставить компьютерные технологии, Интернет и другие мультимедийные инструменты.

Следует учитывать учебные занятия в школах, профессиональных колледжах и академических лицеях республики. Учитывая, что некоторые школы в стране организованы в две смены, среднее образование требует соответствующей корректировки. Сейчас, когда во всем мире коронавирус (COVID-19) студенты будут иметь возможность сидеть перед телевизором и слушать телепередачи в свободное время и заниматься. Для колледжей и академических лицеев желательно организовать телепередачу во второй половине дня.

Большое значение имеет изучение всех предложений по организации телеобразования, особенно его финансирования. Финансирование осуществляется через местные бюджеты, местные и международные фонды и рекламу.

В телевизионном образовании важно создать серию «Академических часов» в каждой области.

Необходимо обеспечить качество учебных материалов. Качество учебного материала - характеристика учащегося. Качество учебного материала определяется пользователем по мере того, как он или она изучает новые факты, новые аспекты и инновационные подходы в изучении материала.

Необходимо создавать учебники, отвечающие целям и задачам каждой ступени



образования - средней школы, среднего специального и высшего образования.

В телеобразовании следует уделять внимание формированию устной и письменной речевой коммуникации. Письменная речь помогает развивать мышление. Уроки правописания, письма и чтения речей важны для повышения грамотности и навыков мышления молодых людей. Введение телевизионного образования повысит престиж телевидения. Также устранено негативное влияние некоторых некачественных программ.

Роль телевидения в обучении точным и естественным наукам очень важна. Социальные сети - один из самых популярных предметов, которыми можно преподавать по телевидению.

Обучение детей и подростков иностранным языкам посредством телевидения, в том числе местных телеканалов, в соответствии с Указом Президента Республики Узбекистан от 10 декабря 2012 г. «О мерах по дальнейшему совершенствованию системы изучения иностранных языков», производство и трансляция программы по истории и культуре других народов, достижениям мировой науки и техники с использованием субтитров на русском языке с регулярными субтитрами. Подлинные материалы помогают студентам изучать и понимать иностранные языки.

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METHODS OF TEACHING THE RUSSIAN LANGUAGE AND DEVELOPING THE VOCABULARY STOCK OF STUDENTS

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ABSTRACT

The Russian language is a world language. Now it is very difficult without the development of the country without knowledge of the Russian language.

Therefore, the government devotes a lot of attention to the development of the Russian language. This article deals with the effectiveness of teaching the Russian language in educational institutions.

KEY WORDS: Russian language, method, vocabulary, educational process,

МЕТОДИКА ПРЕПОДАВАНИЯ РУССКОГО ЯЗЫКА И РАЗВИТИИ СЛОВАРНОГО ЗАПАСА СТУДЕНТОВ

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Аннотация

Русский язык – это мировой язык. Сейчас без развития страны без знания русского языка очень трудно.

Поэтому правительство выделяет много внимание на развитие русского языка. В данной статье речь идет об эффективности преподавания русского языка в образовательных учреждениях.

Ключевые слова: Русский язык, метод, словарный запас, образовательный процесс,

Отмечается, что в рамках Закона Республики Узбекистан «Об образовании» и Национальной программы обучения в стране создана комплексная система обучения иностранным языкам, направленная на формирование гармонично развитой, высокообразованной, современно мыслящей молодежи и поколение, в дальнейшая интеграция страны в мировое сообщество. За годы независимости закончили вузы более 100 тысячи

учителей иностранных языков, созданы учителями и преподавателями мультимедийные учебники и учебники русского, английского, немецкого и французского языков и учебники для 5-9 классов общеобразовательных школ, созданы электронные ресурсы для изучения английского языка в начальных школах, более 5000 средних школ. Вузы, средние школы, профессиональные колледжи и академические лицеи были оснащены лингвистическими кабинетами.



Развитие учебно-образовательного процесса создает удобство для студентов и дает возможность легко усваивать дающий материал.

На начальных этапах изучения русского языка словарный запас играет первостепенную роль в усвоении и общении. Словарный запас является основным компонентом владения языком и во многом определяет, насколько хорошо учащиеся говорят, слушают, читают и пишут. Приобретение словарного запаса все чаще рассматривается как решающее значение для овладения языком. [1,24-25]

Тем не менее, изучение словарного запаса часто воспринимается как утомительный и трудоемкий процесс. Поэтому было предложено множество методов, помогающих изучающим язык улучшить и изучить словарный запас, например слушать иностранную музыку, смотреть иностранные мультфильмы или фильмы с субтитрами, читать книги, газеты и играть в игры. Использование игр для изучения словарного запаса применяется во многих странах мира; однако не многие учителя русского языка, а также ученики применяют эффективную методику преподавания и изучения лексики.

В настоящее время, в быстро развивающемся мире информационных технологий и высоких требований, предъявляемых к знанию языков, владение иностранным языком является ключевым фактором нашего успеха на рынке труда, в межкультурных отношениях, в путешествиях и знакомстве с новыми культурами. Это сложная задача, поставленная перед учащимися, а также перед учителями любого иностранного языка; однако процесс обучения и преподавания не должен состоять только из простого запоминания и тренировки, в него могут быть добавлены некоторые интерактивные и развлекательные элементы.

Примером этого являются языковые игры или игровые занятия, подходящие средства эффективного обучения, сочетающие практику с развлекательными и соревновательными элементами.[2, 45]

Одним из решающих факторов успешного овладения русским языком является изучение словарного запаса, который сохраняется в памяти учащихся и вспоминается при разговоре.

Традиции и новаторство в образовательной и научной сфере - один из многогранных и противоречивых вопросов. Один из этих вопросов - особенности классического и современного образования. В основе специфики лежит социальная активность. С изменениями социальной активности происходят изменения в содержании образования. В настоящее время существует большая потребность в составлении

образовательных программ, в увязке их с международными стандартами и международными учебно-научными книгами.

Образовательная программа является нормативным документом и является основой образовательной деятельности высших учебных заведений. Включает в себя основные знания и формирование важных навыков усвоения.

Русский язык используется многими людьми, и он считается международным языком. Роль русского языка - это не только обмен информацией в общественной жизни, но и язык развития, науки и технологий. В академических целях русский язык используется очень широко, и для объяснения научной темы с использованием русского языка необходимо иметь эффективный уровень владения языком (C1) или уровень мастерства (C2).

Русский язык широко преподается в Узбекистане. Принято множество указов президента, что дает возможность расширить использование иностранных языков.

Выявление новых слов называется словарным знанием. Понимание словарного запаса играет важную роль в изучении языка. Сколько и насколько хорошо вы знаете словарный запас, показывает языковые способности носителей иностранного языка. Словарный запас нужно улучшать шаг за шагом. Он рассматривается как основа, фундамент и каркас языка. Чем больше словарный запас вы знаете или приобретаете, тем больше предложений можно составить. Незнание многих слов делает ваш язык слабым и слабым.

Таким образом, словарный запас, или мы можем называть его «словом», является основным компонентом предложений. Как мы знаем, предложение - это совокупность слов, связанных по значению. Если слова придают особое значение, важно эффективно и точно общаться соответствующими словами. В противном случае информация или тема не были бы понятны или сомнительны по смыслу.

Словарный запас - это один из элементов, который объединяет интегрированные навыки аудирования, чтения, разговорной речи и письма.

Обучение словарному запасу с помощью игр - один из эффективных и интересных способов, который можно применять в любых классах. Результаты этой статьи позволяют предположить, что игры используются не только для развлечения, но, что более важно, для полезной практики и повторения уроков языка, что приводит к цели улучшения коммуникативной компетенции учащихся.

Нельзя отрицать роль игр в обучении и изучении словарного запаса. Однако для того, чтобы максимально использовать словарные игры, важно выбирать подходящие игры. При



проведении игры необходимо учитывать количество учеников, уровень владения языком, культурный контекст, время, тему обучения и обстановку в классе.

- Игры часто используются как короткие упражнения для разминки или когда до конца урока остается время. В этом случае игру не следует рассматривать как второстепенное занятие, заполняющее случайные моменты, когда учителю и классу нечем заняться. Игры должны быть в центре обучения (иностранным) языкам.

- Игры можно использовать на всех этапах урока. Но учителя должны быть уверены, что предоставленные игры подходят и тщательно отобраны учителями.

- Перед началом игры учителя должны обратить внимание на количество учеников, уровень знаний, культурный контекст, время, тему обучения и обстановку в классе.

- Игры также хорошо подходят для повторения упражнений, помогая учащимся вспоминать материал в приятной и увлекательной форме.

Все это говорит о том, что игры являются эффективным методом обучения словарному запасу. Студенты также предпочитают игры другим занятиям. Игры не только мотивируют и развлекают учащихся, но и помогают им учиться, помогая удерживать и восстанавливать словарный запас.

Хотя нельзя сказать, что игры всегда лучше и с ними легче справиться для всех, подавляющее большинство студентов находят игры расслабляющими и мотивирующими. Игры должны быть неотъемлемой частью урока, давая возможность интенсивной практики, и в то же время приносить огромное удовольствие как ученикам, так и учителям. Мое исследование дало некоторые доказательства, которые показывают, что игры полезны и интереснее, чем другие методы изучения словарного запаса. Игры в классе - незаменимый инструмент, которым должен пользоваться каждый преподаватель русского языка и ученик. Игры повышают мотивацию учащихся к изучению языка, способствуют лучшему усвоению материала, помогают учащимся преодолеть любую застенчивость или ограничения, мешающие их процессу обучения, и способствуют более приятному обучению. Имея такие доказательства, я хочу порекомендовать широкое использование игр с лексической работой как успешный способ приобретения языковой компетенции.

В последнее время использование игр стало популярной техникой, применяемой многими педагогами в классах и рекомендованной методистами во всем мире. Многие источники перечисляют преимущества

использования игр в классах иностранного языка.[3,78]

На уроках студенты должны использовать терминалогические словари. Например в транспортном вузе студенты должны иметь на уроке транспортный терминалогический словарь.[4]

Хотя основные цели игр - познакомить учащихся с новыми словами или фразами и помочь им лучше и быстрее запоминать словарный запас, они также способствуют развитию коммуникативных навыков учащихся. Из наблюдений я заметил, что те группы студентов, которые присоединились к игре и практиковали словарный запас в играх, чувствовали себя более мотивированными и заинтересованными в том, что они делали. Это может прояснить, что чем больше времени уделяется деятельности, тем лучше результаты. Оценки, полученные студентами, свидетельствуют о том, что веселая и непринужденная атмосфера, сопровождающая занятия, способствовала обучению студентов. Использование игр во время уроков могло побудить студентов больше работать над словарными элементами самостоятельно, поэтому игра могла быть только хорошим стимулом для дополнительной работы. Нельзя отрицать, что игры - это полезный и эффективный инструмент, который следует применять на занятиях по лексике. Использование игр в процессе обучения - способ сделать уроки более интересными, приятными и эффективными.[5, 211-212]

Было доказано, что игры обладают преимуществами и эффективностью в изучении словарного запаса различными способами.[6] Во-первых, игры расслабляют и развлекают учащихся, тем самым помогая им выучить новые слова и запомнить их. Во-вторых, игры обычно предполагают дружеское соревнование и вызывают у учащихся интерес. Это побуждает изучающих английский язык активно участвовать в учебной деятельности. В-третьих, словарные игры привносят в класс реальный контекст и улучшают использование учащимися английского языка гибким и коммуникативным способом.

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ACTUAL ISSUES OF STUDYING LANGUAGE LINGUISTIC FEATURES IN A TRANSPORT UNIVERSITY

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ANNOTATION

This article examines the issues of linguistic units in the Uzbek language. In addition, the subsections of linguistic units included in the local field are defined.

KEY WORDS: *locality, concept, linguistic field, heterogeneity, phonetic unit, invariance, lexical unit, lexeme, semantic field, grammatical category, language means.*

АКТУАЛЬНЫЕ ВОПРОСЫ ИЗУЧЕНИЯ ЯЗЫКОВЫХ ЛИНГВИСТИЧЕСКИХ ОСОБЕННОСТЕЙ В ТРАНСПОРТНОМ ВУЗЕ

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Аннотация

В данной статье изучаются вопросы лингвистических единиц в узбекском языке.

Кроме того определены подразделы лингвистических единиц, входящие в локальное поле.

Ключевые слова: *локальность, понятие, лингвистическое поле, гетерогенность, фонетическая единица, инвариантность, лексическая единица, лексема, семантическое поле, грамматическая категория, языковые средства.*

Human language is an unusually multifaceted phenomenon. To understand the true essence of a language, it is necessary to consider it in different aspects, consider how it is arranged, in what relation are the elements of its system, what influences it is exposed to from the external environment, for what reasons changes in the language are made in the process of its historical development, what specific forms of existence and functions are acquired by language in human society.

At the same time, it is necessary to first clarify, before talking about individual details, what property of the language determines its main essence. Such a property of language is its function to be a means of communication. Any language of the world acts as a means of communication between people speaking this language. The role of the communicative function in the process of creating a language is enormous. It can be said without exaggeration that the system of material means of language, starting from the phoneme and its concrete real



manifestations and ending with complex syntactic constructions, arose and was formed in the process of using language as a means of communication.

Any thing and chance, movement and state, quality and property finds expression in the mind of a person. Space and time are also no exception to this.

The expression of space through linguistic means creates a linguistic field. In linguistics, locality in close connection with space is expressed by various means.

The concepts included in the linguistic field have a heterogeneous property, since locality finds its expression in various tiers of the language.

The word heterogeneity comes from the Greek heteros means another, different. [1.] The concept of heterogeneity is interpreted in the dictionary of OS Akhmanova as a concept referring to different concepts. [2]

In recent years, the concept of heterogeneity has also entered Uzbek linguistics. In the existing literature, heterogeneity is recognized as a universal phenomenon and is opposed to the concept of homogeneity, which expresses one definite tier.

In particular, D. Nabieva, speaking about invariance - variability, notes that "any means influencing our sense organs and expressing real pronunciation are considered variant, and the sub-concepts of these means are invariant. Hence, invariance and variability together are not a homogenous series, but a heterogeneous phenomenon of different series" [3].

1. First of all, the process of speech is a product of the action of speech organs. Proceeding from this, any sound occurs as a result of a certain organ of speech. And these phonetic units form a local property. In particular, vowel sounds are formed in the oral cavity as a result of the flow of air leaving the lungs, in contact with a certain obstacle. It is this barrier that is considered to be the locality of this sound.

Thus, consonant sounds, if we accept the philosophical concept of "primary" and "secondary", matter is considered "initial".

2. In addition, visible and tangible units, their various properties are expressed in the form of lexemes.

That is, any language has an inherent structure of tokens. These tokens form the center of locality. By doing this, these lexemes are adapted to express tense and form a separate lexical-semantic group (LSG).

In the modern Uzbek language, words expressing locality "rin - place", "zhoy" location, "makon" location, "qishlok" - village, "shakar" - city, "avil" - ovul, "lka" - the region are the central sema.

It is characteristic in this case that these words in a sentence can have different meanings. For example: in the sentence "Shahrimiz obod

b'ylmoqda", the local word "shakar" comes first, and it performs the function of the subject and answers the question "where".

Or "Shakharning kurkiga kurk k'yshilmoqda" - "Our city is becoming more and more beautiful", the locality remains covered.

Or in the sentence: "Shahrimiz tobora rim b'ylmoqda" - "Our city is becoming comfortable" the lexeme expressing "shakar" in the sentence is in the nominative case as a predicate and plays the role of a subject.

In conclusion, it should be noted that any lexical unit related to locality can participate as a member of a sentence and it is stored in the local structure. From this it is clear that among the members of the sentence there is not only the place of the sentence, but their local concepts as well.

3. Locality is connected by the vocabulary of phonetic-architectonic units of any language. In phonetics, the words anlaut, inlaut and auslaut are used to express locality.

The phonetic system of a particular language differs from other languages. The phonetic system of lexemes and their place in the sentence have their own peculiarities. These are vowels and consonants, their free use, for example, the last place of a lexeme and their delimitation. Therefore, it is at this point that vowels and consonants lose their meaning, or in inlay open syllables appear for narrow vowels as a weak position, therefore, in this case, they are reduced, etc.

4. Polysyllabic lexemes with their shock positions are also associated with locality. A syllable with a vowel is a strong position, and a syllable with a consonant is a weak position.

5. Locality expressed by derivation is a secondary locality. Such local lexemes are formed by special derivational means: - zor, - iston, - gox, - lox.

6. Lexemes that have received certain relational forms enter into syntagmatic connections with similar forms. Syntagmatic relations of word forms can be expressed in relational morphemes, and they are also expressed by locality.

In particular, the case forms of the subordinate word, together with subordination, express strict subordination. In this case, the nominative and genitive cases are opposed, formed on the basis of locality. The accusative, instrumental and prepositional cases are characterized by a lack of locality. Therefore, the cases of the first group are considered local. In this case, the accusative case is considered intermediate. Since this case acts as an intermediate means between the first group when composing a sentence.

7. syntactic tasks of local lexemes in most cases are directed to the circumstance of place. This means that locality also takes place in syntactic structures. Such syntactic units also express locality;



besides, at the syntactic level, the place of the predicate has such a meaning that it is closely related to locality. In the structure of the sentence, it has its own definite place, that is, the members of the sentence, which have a determining place in terms of the tasks of the topic and the rem. However, when defining the members of a sentence and expressing the locality of a sentence with syntactic significance, the latter is of great importance.

Thus, locality is a category from a phonetic unit to the highest level of a language. At every level of the language there are means of expressing this category. All locality tools are logically combined into a single locality field.

All linguistic means, united in a linguistic field, differ in their linguistic paradigms from heterogeneous properties.

Based on heterogeneous properties, it is possible to subdivide linguistic units included in the local field and personally subdivide them into: heterogeneous locality, positional locality, nominative locality, derivational locality, relational locality, etc.

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THE IMPORTANCE OF FORMING THE THINKING ACTIVITY OF STUDENTS IN THE EDUCATION PROCESS

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ANNOTATION

This article discusses issues related to the development of the mental activity of students in the process of education.

KEY WORDS: Education, tests, students' worldview, subjects, qualifications, analysis, knowledge, aspiration, teacher, efficiency.

ВАЖНОСТЬ ФОРМИРОВАНИЯ МЫСЛИТЕЛЬНОЙ ДЕЯТЕЛЬНОСТИ СТУДЕНТОВ В ПРОЦЕССЕ ОБРАЗОВАНИЯ

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Аннотация

В данной статье рассматриваются вопросы, связанные с развитием мыслительной деятельности студентов в процессе образования.

Ключевые слова: образование, тесты, мировоззрение студентов, предметы, квалификация, анализ, знание, стремление, преподаватель, эффективность.

In recent times, in our society, everyone has the right to receive education in any field, regardless of his or her primary education level, and it has become a habit to enroll him or her in educational institutions in order to have a good career in future public institutions. Organizing access to educational institutions by taking tests in only a few subjects also makes students' worldviews and knowledge limited and one-sided. Because many subjects are left out in schools, lyceums, and colleges, where only in-depth study of the subjects being tested is given, and attempts to memorize test answers without understanding their essence lead to shallow and one-sided graduates' knowledge.[1]

Since this is a strategic issue that is inextricably linked to the future of the country, we can not ignore it. It should be noted that the main focus in the educational process is on what subjects in educational institutions teaching, what educational standards to follow, and what books to use. Unfortunately, one thing that has been forgotten is the main factor and driving force of teaching - and the most important factor is undoubtedly the Teacher![2]

By itself, such an opinion of some scientists greatly reduces the status of the teacher in society and significantly undermines the respect and attention of students to him. The result is clear - the desire to become a qualified teacher is disappearing,



and the number of those who are qualified to become a professional in this field is sharply reduced. This, in turn, significantly reduces the quality of training. Therefore, it is appropriate to say: "Training a qualified teacher is a very complex and costly undertaking, which is a creative, creative and driving force of the educational process. The country's long-term strategic goal is to maximize the status of each teacher as a very valuable and human resource." [3]

Since this is a strategic issue that is inextricably linked to the future of the country, we cannot ignore it. It should be noted that the main emphasis in the educational process is on what subjects are taught in educational institutions, what educational standards to follow and what books to use. Unfortunately, one thing that has been forgotten is the main factor and driving force of learning - and the most important factor is undoubtedly the Teacher!

The result is not great - the desire to become a qualified teacher disappears, and the number of people capable of becoming a professional in this field is sharply reduced. This, in turn, significantly reduces the quality of training. Therefore, it is appropriate to say: "Training a qualified teacher is a very complex and expensive undertaking, which is a creative, creative and driving force of the educational process. The country's long-term strategic goal is to maximize the status of each teacher as a very valuable and human resource."

Knowledge - This is done by searching for and finding key facts, memorizing them, describing them, recognizing them, reviving them, naming them, researching them, knowing and showing their structure.

Comprehension is the process of retelling, understanding, explaining, describing, and describing.

Research (application) - involves the application of knowledge in other contexts (research, experimentation, application...).

Analysis - identifying the basic relationships between concepts and explaining their essence.

Synthesis is the organization of new things using several of its components and their properties, testing them and, as a result, developing new ones as competitors to existing ones.

Evaluation is the process of determining the results achieved, making a decision or finding a solution (carrying out the evaluation process, solving, identifying the links in the cause and effect chain, categorizing and identifying them). [4]

It relied on the same or similar methods, tips, and guidelines that existed in the world literature in the field of education and were studied extensively and applied to real life by many advanced teachers with satisfactory results. Valuable power has been highlighted based on life experiences from the ways

and means of applying them. Although it does not depend on our desires and needs at all, Bloom's method is still one of the best ways to learn, to give, to learn, both in the West and in the East. For example, if economics is to be taught at a university, it is important to determine what they have learned in the school curriculum, which areas they have focused on, and which areas have been overlooked. . The results can be even more effective if students are divided into appropriate groups and purposefully taught as a result of this identification. In order to create an effective learning environment, the following should be considered in order to be more effective in direct discussion and active exchange of ideas with students in the group:

- You may be asked to state in your own words, live examples, and other ways what answers you expect;
- Sometimes you need to focus the discussion on the text being re-examined;
- Respecting the audience for the diversity of answers on each issue is also crucial in developing a lively discussion;
- Attempts to "correct" audience / student responses often do not lead to good results.

In addition, I would like to note that every teacher must know at least one foreign language and be able to use it well in the lessons of modern information technology. [5] This contributes to the development of him as an advanced personality in society.

In conclusion, if we consider their answers in terms of practical experience, we can, of course, find a specific meaning. Supporting any answer, finding a rational core of its strengths, and showing it to students builds their self-confidence and activates their thinking process.

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THE DEVELOPMENT OF STUDENTS' WRITTEN LANGUAGE IN TEACHING FOREIGN LANGUAGES

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ABSTRACT

This article discusses issues related to the development of students' writing skills in foreign language lessons.

KEY WORDS: *abilities, skills, method, writing, mechanism, text, English.*

РАЗВИТИЕ ПИСЬМЕННОЙ РЕЧИ СТУДЕНТОВ ПРИ ОБУЧЕНИИ ИНОСТРАННЫМ ЯЗЫКАМ.

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В данной статье рассматриваются вопросы, связанные с развитием письменных навыков студентов на уроках иностранных языков.

Ключевые слова: *умения, навыки, метод, письмо, механизм, текст, английский язык.*

Following the principle of continuity of education, a foreign language course is communicative and professionally oriented. Mastering the forms of oral and written communication is carried out in a complex manner, in close unity with the mastery of certain phonetic, lexical and grammatical material.

Paying tribute to the purposeful work on all types of speech communication in their interconnection and interdependence, it should be noted that in teaching a foreign language, the main emphasis is shifted to teaching translation and writing, since a foreign language is professionally used for general scientific purposes (for example, writing abstracts, annotations etc.).

Role-playing plays a special role in the development of written speech in foreign language lessons. [1, 66]

I would like to note that reading a book, especially works of art, plays a significant role in the development of students' written language. [2,7-9]

Linguists distinguish between writing and writing. For a long time, writing was considered the “cinderella of methodology” in terms of methodology and was almost completely eliminated from the learning process. In recent years, the role of writing in teaching a foreign language is gradually increasing and writing is beginning to be considered as a reserve in increasing the effectiveness of teaching a foreign language. Writing and written speech in the methodology of teaching a foreign language act not only as a means of teaching a foreign language, but more and more as the goal of teaching a foreign language.

Writing is the technical component of writing. Written speech, along with speaking, is the so-called productive type of speech activity. As you know, writing is closely related to reading. In their system



lies one graphical language system. The written form of speech is speech recorded in writing and is characterized by stricter, in comparison with oral speech, adherence to the literary norm. Written speech is presented to the addressee in the form of text. The text should be considered as a message objectified in the form of a written document, literary processed in accordance with the genre of this document, consisting of a number of special parts, united by different types of lexical, grammatical and logical connection, which has a certain modal character (that is, a certain expression of the subjective attitude of the author of the speech to reality) and a pragmatic attitude.

Written speech should have the following special qualities: accuracy (if possible unambiguity), depth, consistency, completeness, compositional harmony. These characteristics of written speech echo the main features of the scientific style of speech.

The main qualities of scientific speech both in writing and orally are accuracy, emphasized consistency, generalization, abstractness (abstraction), striving for objectivity of presentation. These style-forming features determine the requirements for the means of expression used in scientific speech. The scientific style is implemented primarily in writing.

When developing students' written language, attention should be paid to the lexical side of the studied language.[3,259-261]. In accordance with the Working Curriculum for the discipline "Foreign Language", teaching the written speech of adjuncts is aimed at developing important communicative skills in writing, such as making a plan or a synopsis of the text, presenting the content of the read in the form of a resume, abstract and annotation, write a message, report, an article on the subject of an adjunct's specialty, write a case your letter. The exercises and methodological recommendations of the course are aimed at developing the writing skills of the adjuncts, which will allow them to competently and freely express their thoughts in writing, develop important special skills to observe, generalize, systematize material, highlight the main thing, and draw conclusions.

Obviously, one of the most important components of coherent speech is the correctness of the construction of sentences. Exercises at this stage can be writing off sentences and explaining the order of words in these sentences, drawing up your own sentences according to a sample, composing different types of questions to the text and written answers to them, etc. It is especially necessary to pay attention to the construction of the word order in the sentence. Equally important and complex is the development of a mechanism for connecting sentences, for which special exercises are used from elementary

(communication of individual sentences) to more complex ones (construction of independent statements). It is obvious that the ability to correctly construct sentences from simple to complex, to connect them in a paragraph is fundamental in mastering written speech.

From our point of view, teachers working with a foreign language training course have the freedom to choose and arrange materials for various stages of teaching writing, based on the specific objectives of the course, the real needs of the students and the level of English proficiency.

We must not forget that the development of students' written language contributes to the development of them in the future as a person.[4]

Summing up the above, it should be noted that the teaching of written speech is the most important component of the course of teaching a foreign language. It is not only about the ability to write competently, about mastering the norms of writing. The sequence of educational and training activities from working on a sentence to modeling a holistic statement and the implementation of educational tasks at each stage of training allow to form the skills and writing skills of students.

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CUSTOMER SATISFACTION TOWARDS DTH SERVICES WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

This study also tries to analyze the factors affecting selection of DTH Brand, Source of Awareness about DTH Services, popularity of selected DTH Services and mode of recharging DTH A/C finally it compares the performance of DTH with cable TV. The growing middle class and rising disposable income coupled with the rising number of television households over the years has assisted growth of investment in this service besides it is costlier than the cable operator. For the study sample of 120 people in Coimbatore city by using a convenience sampling method.

KEY WORDS: Customer satisfaction, Service facility, opportunity of DTH.

INTRODUCTION

DTH services were first proposed in India in 1996. The first DTH service in India, was launched by public broadcaster prasar Bharathi in December 2004. The customer is a center point in every business & it is hence important to check or to verify whether the customer are satisfied or not. The present study tries to find out the level of satisfaction of customers regarding some selected DTH companies.

STATEMENT OF PROBLEM

- Customer and buyers play a vital role in the market. Some of the problems faced by the DTH users are less clarity, high subscription amount, less quality on dish and are, not providing more channels and unable to see the local channels so on. So this study helps to find out the customer attitude towards DTH users.

OBJECTIVE OF STUDY

- Customer and buyers play a vital role in the market. Some of the problems faced by the DTH users are less clarity, high subscription amount, less quality on dish and are, not providing more channels and

unable to see the local channels so on. So this study helps to find out the customer attitude towards DTH users.

SCOPE OF STUDY

- The scope of the study also covers the key factor which influences the customer to take decision to buy DTH connection for this television.
- The study focused on the DTH services of sun direct, Tata sky, dish TV, airtel digital TV and big TV and others. The task of the study is to know among these services which is highly preferred by users in Coimbatore city.

RESEARCH METHODOLOGY DATA COLLECTION METHOD

Data was collected by the primary and secondary method. Primary data was collected through questionnaire from DTH services, while secondary data were collected from the research papers, Articles, Internet Research.

SAMPLING METHOD

To select the sample for the purpose of research a non-profitability sampling technique (convenience) was used on sample size 120 people.



REVIEW OF LITERATURE

Sudheer Kumar (2015) In this study on “Factors motivating customers towards DTH services in Andhra Pradesh” analyzed the reasons for preferring DTH services by adopting ranking technique. In that study, it was found that price was ranked first with the mean score of 2.8 as the reason for preferring the DTH services. With the help of chi-square test it was found that there is significant relationship between advertisement and customer attitude towards DTH. The study highlights that the majority of the respondents prefer to buy Tata Sky because of its best picture quality, reasonable price, various kinds of packages and more channels.

Jayashree and Sivakumar (2014) In their research articles “A study on customer perception towards DTH services in Coimbatore city” revealed that the majority of the respondents prefer to buy sun direct because of its best picture quality, reasonable price, various kinds of packages and more channels. The author suggested that DTH services provider must pay attention on customer services, picture quality, Factors to make their business more successful and satisfy the customer.

TOOLS FOR ANALYSIS

- Percentage analysis.
- Likert scale analysis
- Rank analysis

SIMPLE PERCENTAGE ANALYSIS FORMULA

$$\frac{\text{Number of Respondents Percentage}}{\text{Total number of respondents}} \times 100$$

TABLE SHOWING GENDER OF THE RESPONDENTS

S.NO	GENDER	NO,OF RESPONDENTS	PERCENTAGE
1	Male	62	52
2	Female	58	48
	TOTAL	120	100

(Source: Primary Data)

INTERPRETATION

The table shows that 52% of the respondents are male and the 48% of the respondents are female.

Majority 52% of the respondents are male.

TABLE SHOWING OCCUPATION OF THE RESPONDENTS

S.NO	OCCUPATION	NO.OF RESPONDENTS	PERCENTAGE
1	Self Employed	49	41
2	Public Sector	28	23
3	Agriculture	14	12
4	Unemployed	29	24
	TOTAL	120	100

(Source: Primary Data)

INTERPRETATION

The table shows that 41% of the respondents are self employed and the 23% of the respondents are public sector and the 12% of the respondents are agriculture and the 24% are the respondents are unemployed.

Majority 41% of the respondents educational qualification is self employed.



TABLE SHOWING DISTRIBUTION OF RANKING FOR CHANNEL FACTOR OF DTH SERVICES

S.NO	FACTOR	RANK 1	RANK 2	RANK 3	RANK 4	RANK 5	TOTAL	RANK
1	CHANNELS	51(5) 255	18(4) 72	22(3) 66	12(2) 24	17(1) 17	434	1
2	QUALITY	19(5) 95	48(4) 192	20(3) 60	28(2) 56	5(1) 5	408	2
3	OFFER	15(5) 75	20(4) 80	62(3) 186	11(2) 22	12(1) 12	375	3
4	PRICE	9(5) 45	26(4) 104	12(3) 36	59(2) 118	14(1) 14	317	4
5	FEATURES	26(5) 130	8(4) 32	4(3) 12	10(2) 20	72(1) 72	266	5

Source: (primary data)

INTERPRITATION

The table shows that out f 120 respondents, channels in the rank1, quality is the rank 2, Offers is the rank 3, Price is the rank 4 and features is the rank 5 .

FINDINGS

- Majority 52% of the respondents are male.
- Majority 40% of the respondents are 18years-25years
- Majority 45% of the respondents are the under graduate level.
- Majority 41% of the respondents educational qualification is self employed.
- Majority 37% of the respondents are earning Rs15000-Rs25000.
- Majority 52% of the respondents are Married.
- Majority 41% of the respondents come to know about DTH product by Family Members.
- Majority 68% of respondents are used to number of members in a family
- Majority 36% of respondents to purchasing a selecting product of DTH service.
- Majority 78% of respondents to by a product in nuclear family.
- Majority 37% of respondents above 1 year customer using this DTH products.
- Majority 37% of respondents 3 months once recharge our subscription.
- Majority 38% of respondents to more offers to provide on selling period sun direct.
- Majority 38% of respondents various offers offered provide annual subscription of DTH services.

- Majority 52% of respondents to various features of favorite channel guide to provide in DTH services
- Majority 34% of respondents lack of signals problems customer faced DTH product.

RANK ANALYSIS

- The table shows that out f 120 respondents, channels in the rank1, quality is the rank 2, Offers is the rank 3, Price is the rank 4 and features is the rank 5 .

LIKERT SCALE ANALYSIS

- Likert scale value is 3 which is greater than the mid value(3), so the respondent are satisfied with the channels of the DTH services.
- Likert scale value is 3 which is slightly greater than the mid value(3), so the respondents are satisfied over the packages given to the DTH .
- Likert scale value is 3 which is greater than the mid value (3), so the respondents are satisfied over the quality given to the DTH
- Likert scale value 2 which is greater than the mid value(2), so the respondents are dissatisfied with the rates & installation of the DTH product.

SUGGESTIONS

- DTH services are a new concept in the market and are fast growing and demanding.
- Here are some suggestions to make it more attractive on the present study.
- As the study reveals that there are vast opportunities as well as challenges for DTH



services in India, due to technological innovations and significant change in demographic profile of customers,

- There is huge market potential lying ahead.
- Hence, in add on packages, installation charges and extra validity was very competitive environment, manufacturing will have to strive to attract and retain customers by introducing innovative products, changing the equality of customer.

CONCLUSION

A comparative study on the DTH service providers in Coimbatore is conducted among both the customers & non-customers in order to understand the reach of DTH among the consumers, their preference, their perception & also their extent of satisfaction. This would help the DTH service providers as a part of their market research. By the end of this study, it is understood that the reach of DTH is more among the general public. The DTH services are ranked below on the basis of their customer base. It has been observed the (DD Free Dish) has only a negligible number of customers & it is not competitive enough. Dish TV, Tata Sky, Airtel HD, Big TV & D2H HD offer a better service than Sun Direct although they have less number of customers than the later. Based on the findings, suggestions have been provided.

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RATIONALISATION RED FLAGS AND LIKELIHOOD OF FRAUD DETECTION IN NIGERIA

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ABSTRACT

The broad objective of this study is to ascertain the impact of rationalisation red flags as prescribed by SAS.99 in relation to the fraud triangle on the likelihood of fraud detection in Nigeria. The specific objectives of this study are to determine the effects of rationalisation red flags proxies: quality of earnings; and effective cash tax rate on the likelihood of fraud detection in Nigeria. This study used secondary data sourced from audited annual reports of quoted companies in the Nigeria Stock Exchange and a sample size of sixty-five (65) companies were used for a six-year period of 2009-2014. The variables were derived by making necessary computations using information reflected on the face of financial statements to derive our figures not explicitly stated on the face of the financial statements. The probit regression estimation analyses on the pooled data shows that Rationalization red flags such as quality of earnings and effective cash tax rate on the average cannot aid the likelihood of fraud detection in Nigeria. It is however recommended that forensic accountants should as a matter of necessity pay close attention to our findings in this study and make use of SAS.99 qualitative and quantitative proxies red flags when carrying fraud examination.

I. INTRODUCTION

The Association of Certified Fraud Examiners (ACFE, 2012) reported a high percentage of fraud that occurs globally. ACFE (2012) reported and analyzed 1388 fraud cases the world over and classified these fraud cases into three groups that include; asset misappropriation, corruption, and financial statement fraud. It was observed that asset misappropriation has the most cases with more than 86 percent of fraud cases but caused the lowest range of loss at US\$ 120000 on the average. On the contrary, financial statement fraud involved less than 8 percent of the fraud cases, but the majority of losses were related to this category with US\$ 1 million on the average. This statistics underlines the perceived challenges associated with fraud detection in financial statements, even though the conventional audit procedure will normally issue an unqualified opinion relating to claims made by management in the financial statements.

The American Institute of Certified Public Accountants, AICPA (2002), in an acknowledgement of the challenges faced by forensic auditors in the course of fraud detection, established the Statement of Auditing Standards (SAS) No.99; consideration for fraud in financial statements, which auditors are expected to use as tools in the course of detection of fraud in financial statements. The standard issued 42 red flags that the auditors should look out for in the course of trying to detect fraud. However the red flags were aligned into the elements of fraud triangle and because the red flags are qualitative in nature, it makes it difficult for auditors to use scientific modeling in detecting financial statement fraud except where necessary proxies are adopted. Few empirical studies like those of Skousen, Smith and Wright (2008), in the United States of America, Amara, Amar, and Jarbou (2013) in France, and Aghghaleh, Iskandar, and Mohamed (2014) in Malaysia.



Fraud detection is the act of uncovering the phenomenon of theft, conversion and concealment. Fraud detection becomes necessary where prevention of fraud fails in an organization, hence the need for the forensic accountant to be equipped with the requisite skills in detection of fraud cannot be overemphasized. The detection techniques deployed by a forensic accountant is a function of the kind of fraud occurring in the organisation. Fraud detection approaches basically involves documentation and independent checks of special transactions (Hopwood, Young & Leiner, 2013), but due to the continuous proliferation of sophisticated crimes across the globe, the issue of fraud detection appears to have gone beyond mere documentation and independent checks of special transactions. Enofe, Ibadin, Audu and Izevbigie (2014) observed that despite the high increase in fraud rate in Nigeria, the vehicle for investigating and prosecuting fraudster and fraudulent activities are still very limited.

Meanwhile in an attempt to ease the fraud detection problems, the American Institute of Certified Public Accountants (AICPA) in October 2002 established the Statement of Auditing Standards (SAS) No. 99, which deals with consideration of fraud in financial statements. The SAS No. 99 in a bid to address the obvious challenges faced by forensic accountants in the detection of fraud, listed about 42 red flags (mostly qualitative) which are subsumed into the fraud triangle model developed by Cressey (1953), so as to guide forensic accountants in the course of fraud detection exercise. However, studies carried out by researchers on the nexus of these red flags and fraud detection in Nigeria and other African countries such as (Hegazy & Kassem, 2010; Koornhof & Plessis, 2000; Ogwueleka, 2011), have scarcely used quantitative proxies in representing these red flags. The objective of this study is to examine the nexus between rationalisation red flag and likelihood of fraud detection, with emphasis on quantitative proxies as basis for measurement of variable of interest.

II. CONCEPTUAL LITERATURE

Likelihood of fraud detection

Kou, Lu and Sinvongwattana (2004) defined fraud detection as the act of identifying fraud as quickly as possible once it is perpetrated. The authors maintained that fraud detection has been implemented by a number of methods which include artificial intelligence, statistics, and data mining. However, Bierstaker, Brody, and Pacini (2006) identified fraud prevention and detection techniques to include but are not limited to: fraud policies, firewalls, employee reference checks, vendor contract reviews and

sanctions, financial ratio analysis, telephone hot lines, password protection, digital analysis and other forms of software technology, fraud vulnerability reviews, and discovery sampling. According to Yücel (2012) understanding the factors that cause fraud and accordingly defining primary areas to conduct detailed examination by estimating the riskiest accounts is the way to detect fraud in the most effective manner. Auditors follow various indicators (red flags) and employ different methods in detecting fraud and manipulations.

Bolton and Hand (2002) sees fraud detection as a mechanism for early identification of fraud upon its occurrence, and that failure of fraud prevention leads to fraud detection. They propose a continuous use of fraud detection because of the inability to easily determine the failure of preventive controls. They opined that fraud detection is still evolving and that perpetrators are most likely to adopt different approaches as management try to put in place more robust fraud detection techniques. Othman, Aris, Mardziyah, Zainan, and Amin (2015) opine that fraud detection should be continually used and worked upon because fraud is always evolving. Othman *et al.* (2015) pointed to the fact that the conventional fraud detection approach like auditing is no longer sufficient in fraud detection and only enabled fraud to be detected, if ever after a lag period, maintaining that this development result in colossal loss and potential loss of goodwill. Some tools commonly used to measure the likelihood of fraud in an organization are the Beneish M-score and Altman Z-score.

Beneish M-Score model

Jansen, Ramnath, and Yohn (2012) opined that identifying earnings management is important for financial statement users to assess current economic performance, to predict future profitability, and to determine firm value. The M-Score was modeled by Professor Messod Beneish. It is a mathematical model that adopts some financial metrics to identify the extent of company's earnings. The M-Score is similar to the Z-Score except that the M-Score concentrates on estimating the extent of earnings manipulation instead of determining when a company becomes bankrupt. The M-Score comprise of eight ratios that capture either financial statement distortions that can result from earnings manipulation or indicate a predisposition to engage in earnings manipulation (Beneish and Nichols, 2005). Warshavsky (2012) indicates that companies with higher Beneish scores are more likely to be manipulators. Mahama, (2015) stated that one of the advantage of the M-score is that the treatment sample consists of firm that have indeed managed



earnings and that determination is independent of abnormal accrual models (Beneish, 1998).

The Beneish (1999) model is presented mathematically as follows:

$$M = -4.84 + 0.920DSR + 0.528GMI + 0.404AQI + 0.892SGI + 0.115DEPI - 0.172SGAI + 4.679ACCRUALS - 0.327LEVI$$

Where,

$$DSRI = (\text{Receivables}_t / \text{Sales}_t) / (\text{Receivables}_{t-1} / \text{Sales}_{t-1})$$

$$GMI = ((\text{Sales}_{t-1} - \text{Sold Goods of Costs}_{t-1}) / \text{Sales}_{t-1}) / ((\text{Sales}_t - \text{Sold Goods of Costs}_t) / \text{Sales}_t)$$

$$AQI = (1 - ((\text{Current Assets}_t + \text{PPE}_t) / \text{Total Assets}_t)) / (1 - ((\text{Current Assets}_{t-1} + \text{PPE}_{t-1}) / \text{Total Assets}_{t-1}))$$

$$SGI = \text{Sales}_t / \text{Sales}_{t-1}$$

$$DEPI = (\text{Depreciation}_{t-1} / \text{Depreciation}_{t-1} + \text{PPE}_{t-1}) / (\text{Depreciation}_t / \text{Depreciation}_t + \text{PPE}_t)$$

$$SGAI = (\text{SGA Expenses}_t / \text{Sales}_t) / (\text{SGA Expenses}_{t-1} / \text{Sales}_{t-1})$$

$$TAT = (\text{Change in Working Capital}_t - \text{Change in Cash} - \text{Change in Income Tax Payable}_t - \text{Depreciation \& Amortisation}_t) / \text{Total Assets}_t$$

$$LEVI = ((\text{LTD}_t + \text{Current Liabilities}_t) / \text{Total Assets}_t) / ((\text{LTD}_{t-1} + \text{Current Liabilities}_{t-1}) / \text{Total Assets}_{t-1})$$

Red flags

The American Institute of Certified Public Accountants, AICPA (2002) submitted in its Statement of Auditing Standard, SAS No. 99, that auditors are expected to use 42 red flags in financial statement audits to detect fraudulent financial reporting. The list of 42 red flags found in SAS No. 99 is categorized under pressure, opportunity and rationalization. Abdullahi and Mansor (2015) defined red flags as a systematic way of detecting the symptoms or any signs of fraudulent activities within the organizational settings, they opined that the red flags found in SAS No. 99 is arranged based on the fundamental concept of fraud triangle, which encompasses: pressure, opportunity, and rationalization.

Abdullahi and Mansor (2015) extended the red flags beyond the 42 prescribed by SAS No.99 by identifying some red flags under the fourth element of fraud diamond theory as follows: Pressure red flags includes excessive personal debt; Material lifestyle with lower earning; Excessive gambling; Undue family, organization, and or community prospects; Alcohol or drugs addiction among the employees; Perceived differential and inequality treatment; Antipathy of superiors, intimidation and frustration with job; Pressures from the employee's peer group and clique; Greediness of the employee; and Social, working and other environmental distresses.

According to Abdullahi and Mansor (2015), opportunity red flags include close relationship between suppliers and other key people within and outside the organization; Organizational failure to orienting employees on the measures uses to eradicate fraudulent act; Frequent and excessive replacement of key employees due to retrenchment, firing and retiring; Lack of job rotation, regular vacation or transfer of key

employees within the organization; Inadequate personnel-screening policies when employing a new employee for the replacement; Lack of general and precise personnel policy; Improper record of commendation on personnel dishonest act and other disciplinary actions; Lack of executive disclosures and examinations; A dishonest or overlapping of duty by the dominant management; frequent operation in an unfavorable climate; Lack of supervision and attention paid to details of the job; Inadequate compensation scheme;

Others opportunity red flags include inadequate training programs; Related party transactions; A complex organizational structure; Lack of effective internal auditing staff; use of several auditing firms or changes auditors frequently; providing irrelevant data to the auditors and lack of required information; Use of various legal firms or changes legal counsels repeatedly; An organization that uses large number of different bank accounts; Continuous problems with various regulatory agencies; Large year-end and unusual transactions or unbalanced transactions; An inadequate internal control system or no enforcement of the existing internal controls; Lack of proper accounting records and inadequate accounting personnel; An organization that inadequately disclosed questionable or unusual accounting practices; and Too much familiarity with operations. Rationalization red flags includes an employee's inconsistent behaviour; Lack of personal ethics and morality; A wheeler-dealer personality; A strong desire to beat the system; Employee's criminal or questionable historical background; and a poorly recommended employee with poor financial status. Capacity red flags include having exercising an excessive power; Job or work overlapping; Too much



power to coerce other employees; Ability to pursued others; Too much resistance to stresses; Ability to convincingly deceive and tell lies; Too much egoism and over confidence; Specialization in one function for a long duration; and Confidence of risk bearing

Koornhof and Plessis (2000) maintained that red flags are seen as those events, conditions, situations, pressures, opportunities, threats or personal characteristics that may increase the risk of management fraud, suggesting that the access that auditors have to the organization books allow them to use a broad spectrum of red flag indicators.

REVIEW OF EMPIRICAL LITERATURE

Rationalisation red flags and fraud detection

Koornhof and Plessis (2000) examined the perception of investors and lenders on red flagging as an indicator of financial statement fraud. They carried out a survey by administering questionnaire to investors and lenders in South Africa with a view to ascertaining the usability of fraud red flags and also attempted to find out the opinions of respondents on the relevance of the individual red flags. The study reveals that lenders and investors in South Africa are obviously aware of the benefits of red flags as early fraud symptoms. However Koornhof and Plessis observed that there was absence of distinction among the different categories of red flags that were based on the nature of red flags, an indication of a lack of structural approach in questionnaires/checklists.

Moyes, Lin, Landry, and Vicdan (2006) in a study on internal auditors' perceptions of the effectiveness of red flags to detect fraudulent financial reporting, investigated the level of effectiveness of the forty-two (42) red flags prescribed by SAS 99 for detecting fraudulent financial reporting. Moyes *et al.* (2006) submitted that the professional practices framework of the Institute of Internal Auditors (IIA, 2005) expects internal auditors to deter, detect, investigate and report fraud, maintaining that though statement of auditing standard (SAS) No. 99 expect external auditors to use fraud red flags in the auditing of financial statement, but that the internal auditors also use them in conducting compliance, operational and conventional audit. Moyes *et al.* (2006) however found out that out of the 42 red flags, 15 were found to be more effective, 14 were rated to be effective, while 13 were observed as ineffective as probable of the presence of fraud. According to Moyes *et al.* (2006) SAS No. 99 categorizes the forty-two (42) red flags into three elements of the fraud triangle—"opportunities," "pressures," and "rationalizations." Based on their findings, it was observed that internal

auditors consistently rated red flags categorized as "opportunity" and "rationalizations" as more effective in detecting falsified financial statements than red flags labeled "pressures."

Ogwueleka (2011) examined the relevance of data mining application in credit card fraud detection system, using the neural network. The study adopted an unsupervised method neural network (NN) architectural design for the credit card detection system, and was applied to the transactions data to generate four clusters of low, high, risky and high-risk clusters. With the aid of self-organizing map neural network (SOMNN) technique, the study was able to resolve the problem of optimal classification of each transaction into its associated group, based on the fact that prior output was unknown. However, Ogwueleka (2011) opined that the receiver-operating curve (ROC) for credit card fraud (CCF) detection watch, without any false alarms was able to detect a significant 95% of fraud cases unlike other statistical models and the two-stage clusters, which is a clear indication that the CCF performs better and CCF detection watch is in tandem with other fraud detection software.

Bhusari and Patil (2011) carried out a study of hidden Markov model in credit card fraudulent detection. Bhusari and Patil (2011) asserted that in the existing credit card fraud detection business processing system, fraudulent transaction will be detected after transaction is done, but showed in this study that credit card fraud can be detected using Hidden Markov Model during transactions, maintaining that the Hidden Markov Model helps to obtain a high fraud coverage combined with minimal false alarm rate.

Amara, Amar, and Jarbouli (2013) investigated the impact of the elements of fraud triangle on the detection of fraud in the financial statements. Using data related to a sample of 80 French companies in the SBF 250 for the period 2001 to 2009 and logistic regression method, their findings shows that the performance issues exerted on the manager which culminate in pressure precipitate the perpetration of fraud in the financial statements. While other factors related to financial difficulties (debt, liquidity) and the size of auditing firm are not associated with the detection of fraud.

THEORETICAL FRAMEWORK

Fraud Triangle Theory (Donald Cressey, 1950)

Donald Cressey in 1950 developed the fraud triangle theory as a way of investigating the root causes of fraud and published the fraud triangle theory for the first time in 1953 in his journal title other people's



money (Abdullahi & Mansor, 2015). Cressy in 1950, attempted to provide answers on why people commit financial crimes by examining 250 criminals in a period of 5 months and concluded that: trust violators, having a financial problem that is non-shareable and having knowledge or awareness that this problem can be secretly resolved by a violation of the position of financial trust, gave birth to the theory of fraud triangle which comprises of elements such as pressure, opportunity and rationalization.

Ruankaew (2013) argued that before an employee makes sub-optimal/fraudulent decisions, the tripod elements of fraud triangle which includes pressure, opportunity, and rationalization are preconditions which must be satisfied. He noted that pressure relates to the triggering factor that leads to unethical behaviors, maintaining that those who perpetrate fraud are usually under pressure arising from various circumstances, which in most cases will involve financial stress. Similarly, Ruankaew submitted that perpetrator believes that opportunity exist irrespective of the reality of such opportunity, citing that fraudulent actions is a function of low level of risk. On the other hand, rationalization is a calculated attempt by perpetrator to justify his/her action before the eventual execution of the fraudulent actions. Hopwood, Young and Leiner (2013) defines fraud triangle as a means of assessing the risk that a particular individual may commit fraud. They opine that the triangle consist of three elements which includes pressure/motive, opportunity and rationalization. This means that in the use of use of model for fraud detection, an understanding of the workability of the theory of fraud triangle is very important.

According to Kassem and Higson (2012), the question of why people commit fraud was first examined by Donald Cressey, a criminologist, in 1950. He pointed out that his research was about what drives people to violate trust. He interviewed 250 criminals

over a period of 5 months whose behaviour met two criteria: (1) the person must have accepted a position of trust in good faith, and (2) he must have violated the trust. He found that three factors must be present for a person to violate trust and was able to conclude that: "Trust violators when they conceive of themselves as having a financial problem which is non-shareable, have knowledge or awareness that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalisations which enable them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property". The three factors were non-shareable financial problem; which is the pressure, opportunity to commit the trust violation, and rationalisation by the trust violator. When it comes to non-shareable financial problem, Cressey stated "Persons become trust violators when they conceive of themselves as having incurred financial obligations which are considered as non-socially sanctionable and which, consequently, must be satisfied by a private or secret means". The theoretical framework upon which this work is anchored on is the theory of fraud triangle.

III. METHODOLOGY

The secondary source of data collection was used. This was achieved from the annual reports of the respective companies and the Nigeria Stock Exchange Fact Books for a six (6) year period from 2009-2014, thus making it a panel data collection of sixty-five (65) companies. The study used probit regression as it expects a functional relationship between the pressure red flag and the likelihood fraud detection. The model adapted from the work of Aghghaleh, Iskandar and Mohamed (2014) is stated and operationalized as follows:

$$\text{Fraud} = \beta_0 + \beta_1 \text{SALAR} + \beta_2 \text{LEV} + \beta_3 \text{AUDCSIZE} + \beta_4 \text{BRDSIZE} + \epsilon$$

.....Eqn. 3.1

The model is adapted in this study as follows:

$\text{DLFD}_{it} = F$ (pressure (SALAR, LEV), opportunity (AUCSIZE, BRDSIZE), rationalization)

Grove and Cook (2004) put forward two additional quantitative red flags not yet considered in fraud detection models which were incorporated into this model and classed under rationalization. The additional quantitative red flags are: Quality of

earnings and the effective cash tax rate, which they denoted as follows:

Quality of earnings (QOE) = (Operating cashflows/Net income); with a red flag benchmark of <2

Effective cash tax rate (ECR) = GAAP: Accrual basis: (Total income tax expense/Net income before taxes) or



Cash basis: (Total income tax paid/Net income before taxes)

With a red flag benchmark of >2

Thus the fraud detection model adapted from Aghghaleh, Iskandar and Mohamed, (2014) for this study is:

$DLFD_{it} = F$ (pressure (SALAR, LEV), opportunity (AUCSIZE, BRDSIZE), rationalization (QOE, ECR)), However, because our dependent variable; likelihood of fraud detection ($DLFD_{it}$) is measured using dummy variables on the Beneish M-score metrics, we used probit regression model for our estimate as follows:

$$DLFD_{it} = \beta_0 + \beta_1 SALAR_{it} + \beta_2 LEV_{it} + \beta_3 AUCSIZE_{it} + \beta_4 BRDSIZE_{it} + \beta_5 QOE_{it} + \beta_6 ECR_{it} + \epsilon_{it} \dots \text{Eqn. 3.2}$$

Where:

$DLFD_{it}$ = Likelihood of fraud detection of company i in year t.

$SALAR_{it}$ = Sales to Accounts receivables of company i in year t.

LEV_{it} = Total debt to Total assets of company i in year t.

$AUCSIZE_{it}$ = Number of audit committee members of company i in year t.

$BRDSIZE_{it}$ = Number of board of directors members of company i in year t.

QOE_{it} = Quality of earnings of company i in year t.

ECR_{it} = Effective cash tax rate of company i in year t.

ϵ_{it} = stochastic error term

$\beta_1 - \beta_6$ = Regression coefficients

Data Analyses and interpretation

The result of the descriptive statistics in Table 1 the appendices shows the statistics of three hundred and ninety (390) recorded observations from annual reports of sixty-five (65) companies listed on the Nigeria stock exchange for a period of six years (2009-2014). It shows that the Likelihood of Fraud Detection (LFD), which is the main variable of interest as it is the dependent variable has a mean value of 0.400000, while its standard deviation is 0.490527, it has a Jarque-Bera value of 65.45139. Sales to Accounts receivables (SALAR) has the highest mean value of 19.20881 and a standard deviation of 107.0200. Total debt to Total assets (LEV) has a mean value of 0.078203 and standard deviation value of 0.123877, Number of audit committee members (AUCSIZE) has a mean value of 5.123077 and standard deviation of 1.658578, while Number of board of directors' members (BRDSIZE) has a mean value of 9.107692 and standard deviation of 3.942217. Quality of earnings (QOE) and Effective cash tax rate (ECR) have mean values and standard deviation values of 0.700000, 0.112821 and 0.458846, 0.316780 respectively. Sales to Accounts receivables (SALAR) has the highest Jarque-Bera value of 281810.6. All other variables but Number of audit committee members (AUCSIZE), Number of board of directors' members (BRDSIZE) and Quality of earnings (QOE) exhibited positive skewness.

Table 2 in the appendices shows the association among the variables employed in our study. It shows that the Likelihood of Fraud Detection (LFD) has a low positive relationship with Sales to Accounts receivables (SALAR), Total debt to Total assets (LEV),

Number of audit committee members (AUCSIZE), and Number of board of directors' members (BRDSIZE) with correlation coefficient values of 0.081614, 0.094254, 0.207911 and 0.146497 respectively, and a negative relationship with Quality of earnings (QOE) and Effective cash tax rate (ECR) with a correlation coefficient values of -0.059391 and -0.009926 respectively. Sales to Accounts receivables (SALAR) has low positive and negative relationship with Total debt to Total assets (LEV), Number of audit committee members (AUCSIZE), Number of board of directors' members (BRDSIZE), and Quality of earnings (QOE), Effective cash tax rate (ECR) with a correlation coefficient values of 0.063967, 0.047406, 0.015589 and -0.001598, -0.036860 respectively.

Total debt to Total assets (LEV) has low positive and negative relationship with Number of audit committee members (AUCSIZE), Number of board of directors' members (BRDSIZE), Effective cash tax rate (ECR) and Quality of earnings (QOE) with correlation coefficient values of 0.135642, 0.041877, 0.093380 and -0.063596 respectively.

Number of audit committee members (AUCSIZE) has low positive and negative relationship with Number of board of directors' members (BRDSIZE), Effective cash tax rate (ECR) and Quality of earnings (QOE) with correlation coefficient values of 0.716672, 0.046896 and -0.208079 respectively. While Number of board of directors' members (BRDSIZE) has negative and low positive relationship with Quality of earnings (QOE) and Effective cash tax rate (ECR) with a correlation coefficient values of -0.138421 and 0.010831 respectively.



Table 3 in the appendices shows the result of probit regression estimate. It has a McFadden R-squared value of 0.045772, an indication that about 4% of the likelihood of fraud detection on the average, is jointly explained by Sales to Accounts receivables (SALAR), Total debt to Total assets (LEV), Number of audit committee members (AUCSIZE), Number of board of directors' members (BRDSIZE), Quality of earnings (QOE) and Effective cash tax rate (ECR) while the balancing 96% is captured in the stochastic error term (ϵ_{it}). This means that the model has a low predictive power. However, with an LR statistic value of 24.02800 and Prob (LR statistic) value of 0.000516, the model model on the average can be said to be statistically significant at 95% confidence interval. This means that there exists a significant relationship between likelihood of fraud detection and all explanatory variables which includes Sales to Accounts receivables (SALAR), Total debt to Total assets (LEV), Number of audit committee members (AUCSIZE), Number of board of directors' members (BRDSIZE), Quality of earnings (QOE) and Effective cash tax rate (ECR).

The results of our estimate show that quality of earnings have a probability value of 0.7826, hence not significant at 95% confidence interval. This means on the average, that the quality of earnings cannot aid the likelihood of fraud detection in Nigeria.

The results of our estimate show that effective cash tax rate has a probability value of 0.7203, hence not significant at 95% confidence interval. This means on the average, that effective cash tax rate cannot aid the likelihood of fraud detection in Nigeria.

IV. CONCLUSION

This study is an empirical investigation of rationalisation red flags and likelihood of fraud detection in Nigeria. Detection of fraud involves the use of different mechanisms such as fraud models and other methodology. Based on our empirical analyses, finding shows that red flags can aid the likelihood of fraud detection in Nigeria. However, the nature of red flag model to be employed in fraud detection process may vary from industry to industry based on the varying degree of significance of the different red flags in the different corporate industries in Nigeria. The result of this study shows that Rationalization red flags such as quality of earnings and effective cash tax rate on the average cannot aid the likelihood of fraud detection in Nigeria. It is however recommended that forensic accountants should as a matter of necessity pay close attention to our findings in this study and make use of SAS.99 qualitative and quantitative proxies red flags when carrying fraud examination.

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APPENDIX

Table 1 Descriptive statistics

	LFD	SALAR	LEV	AUCSIZE	BRDSIZE	QOE	ECR
Mean	0.400000	19.20881	0.078203	5.123077	9.107692	0.700000	0.112821
Median	0.000000	4.309185	0.020363	6.000000	9.000000	1.000000	0.000000
Maximum	1.000000	1494.708	0.960651	7.000000	21.00000	1.000000	1.000000
Minimum	0.000000	0.000000	-0.462440	0.000000	0.000000	0.000000	0.000000
Std. Dev.	0.490527	107.0200	0.123877	1.658578	3.942217	0.458846	0.316780
Skewness	0.408248	10.97473	2.114106	-2.091805	-0.093675	-0.872872	2.447612
Kurtosis	1.166667	132.8476	12.19973	6.709489	3.959115	1.761905	6.990804
Jarque-Bera	65.45139	281810.6	1665.834	508.0222	15.51878	74.43311	648.2082
Probability	0.000000	0.000000	0.000000	0.000000	0.000427	0.000000	0.000000
Sum	156.0000	7491.437	30.49898	1998.000	3552.000	273.0000	44.00000
Sum Sq. Dev.	93.60000	4455326.	5.969429	1070.092	6045.477	81.90000	39.03590
Observations	390	390	390	390	390	390	390

Source: Researchers computation (2016) using Eviews 8.0



Table 2 Correlation matrix

Covariance Analysis: Ordinary

Date: 04/22/16 Time: 10:51

Sample: 1 390

Included observations: 390

Covariance Correlation	LFD	SALAR	LEV	AUCSIZE	BRDSIZE
LFD	0.240000 1.000000				
SALAR	4.273422 0.081614	11423.91 1.000000			
LEV	0.005713 0.094254	0.845862 0.063967	0.015306 1.000000		
AUCSIZE	0.168718 0.207911	8.393005 0.047406	0.027798 0.135642	2.743826 1.000000	
BRDSIZE	0.282564 0.146497	6.560196 0.015589	0.020398 0.041877	4.673925 0.716672	15.50122 1.000000
QOE	-0.013333 -0.059391	-0.078287 -0.001598	-0.003606 -0.063596	-0.157949 -0.208079	-0.249744 -0.138421
ECR	-0.001538 -0.009926	-1.246413 -0.036860	0.003655 0.093380	0.024576 0.046896	0.013491 0.010831

Source: Researchers computation (2016) using Eviews 8.0



Table 3 Regression result output

Dependent Variable: LFD
 Method: ML - Binary Probit (Quadratic hill climbing)
 Date: 04/22/16 Time: 10:48
 Sample: 1 390
 Included observations: 390
 Convergence achieved after 4 iterations
 Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.314037	0.314753	-4.174817	0.0000
SALAR	0.001016	0.000835	1.216795	0.2237
LEV	0.694675	0.522524	1.329462	0.1837
AUCSIZE	0.189917	0.064713	2.934776	0.0033
BRDSIZE	0.002699	0.023438	0.115148	0.9083
QOE	-0.039670	0.143777	-0.275911	0.7826
ECR	-0.074133	0.207040	-0.358063	0.7203
McFadden R-squared	0.045772	Mean dependent var		0.400000
S.D. dependent var	0.490527	S.E. of regression		0.482595
Akaike info criterion	1.320311	Sum squared resid		89.19994
Schwarz criterion	1.391498	Log likelihood		-250.4605
Hannan-Quinn criter.	1.348530	Deviance		500.9211
Restr. deviance	524.9491	Restr. log likelihood		-262.4746
LR statistic	24.02800	Avg. log likelihood		-0.642207
Prob(LR statistic)	0.000516			
Obs with Dep=0	234	Total obs		390
Obs with Dep=1	156			

Source: Researchers computation (2016) using Eviews 8.0



TOWARDS CRITICAL EDITION OF LOLIMBARAJA'S VAIDYA-JEEVANA INCORPORATING THE IMPORTANT COMMENTARIES DEEPIKA BY RUDRABHATTA AND GUDARTHA DEEPIKA BY HARINATH GOSWAMI

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ABSTRACT

The manuscripts preserved acts as valuable treasure of knowledge which can be utilized for the wellbeing of present generation as well as to pass on to the next generation. A thorough study on Deepika and Gudarth Deepika commentaries on Lolimbaraja's Vaidya jeevana, present in the form of manuscript in oriental research institute libraries has been brought much information that is new for present understanding. The present study focuses on treatment aspects of various diseases and preparation of yogas with easy available drugs in present clinical practice and better development of Ayurvedic practices. The study is based on the technical method of critical edition in order to update & conserve the medical knowledge dealt in Deepika and Gudarth Deepika commentaries on Lolimbaraja's Vaidya jeevana.

Objective: 1. To collect and decipher two important commentaries on Lolimbarajas vaidya Jeevana
2. To collate and critically edit the two important commentaries on Lolimbarajas Vaidya Jeevana to know their contributions.

Methodology

The study is based on seven plus five (total 12) manuscripts and all were in Devanagari script and their details are as below.

1. R-1 to R 7 are - Obtained from BORI, Pune : Accession numbers as - 1093/ 1886-92, 463/ 1895-98, 353/ 1879-80, 948/ 1891-95, 178/ 1882-83, 618/ Vi³/₄-1, 306/ Vi³/₄-1
2. H-1 to H 4 are -Obtained from BORI, Pune; Accession numbers as- 462/1895-98, 913/ 1887-91, 635/ 1895-1902, 238.B/ A 1883-84 and IX
3. H-5 - Obtained from Zen library, Arrah, Bihar; Accession number 76/42.

Digitization of manuscripts, editing and analysis of mutual relationship among collected copies of Manuscripts, transliteration of all extant of copies selected for Critical edition and Critical Edition with English Translation of the Text is being done.

Conclusion

By observing all internal and external evidences, Deepika by Rudrabhatta and Gudarth Deepika by Harinatha Goswami are the well known commentaries on Lolimbaraja's Vaidya jeevana pertaining to early and late 17th CAD respectively. These all contributions enhance the richness of Ayurveda in modern era.

KEYWORDS: Critical edition, Deepika, Rudrabhatta, Gudarth Deepika, Goswami Harinatha, Vaidya Jeevana, etc.



INTRODUCTION

Deciphering a manuscripts and its critical edition for publication is a journey to re-observe the study material in an authentic experimentation and thereby make a conclusion. These conclusive factors of the contextual text are prepared through the series of unexplored and unidentified thoughts. The evaluation of the thought process is rightly to be well acquainted in the modified form without varying the meanings or keeping the meanings in its real form. A comprehensive and compact clarification is essentially incubated through the processing of the transcription of knowledge¹.

The medical text is different from the other literary texts and therefore its extension is rhythmically supplemented by verification of the context considering the different log rhythms. The meaningful progression either in qualitative or quantitative perspective signifies the amplitude of the extensive and ample rectification of the context, if necessary. The substantiate tunes of the textual knowledge flows from time immemorial and accordingly enrich the queries of the researcher for further exploration. The present work is also taken to serve the same purpose.

Lolimbaraja was son of Divakara bhatta and native of Junnar of Pune district of Maharashtra state. He has composed many books through the conversation with his wife Murasha, who was renamed as Ratnaprabha by Lolimbaraja after marriage.

Lolimbaraja has written four books on Ayurveda and few books in Marathi on different subjects. Among the Ayurveda books Vaidyajeavana is the most popular because all its verses are lyrical, full of pun and fun. In these verses the author has described some common diseases briefly and prescribed medicine for them.

In view of its popularity many commentators namely Prayagadatta, Damodara, Rudrabhatta, Harinath have written their commentaries, out of which the following commentaries are found viz.,

1. **Deepika** by Rudrabhatta son of Koneri Bhatta resident of the town Khadder on the banks of river Godavari. Koneri Bhatta was court physician of Abdul Rahim Khankaana (1557-1630).
2. **Gudhartha deepika** by Goswami Harinath, son of Manohara and native of Kashmir. He is assigned to 1730 A.D.

3. Vidvadvaidya ranjani
4. Krishnapanditeeya
5. Deepika by Sukhananda².

Time of Lolimbaraja - His name is uttered by Trimalla Bhatta in Yogatarangini. The time period of Trimalla bhatta is 1650. In Kashi Hindu Vishwa Vidyalaya a manuscript on Vaidya jeevana is available dated 1656. So lolimbaraja occupies place between Bhava mishra and Trimalla bhatta i.e the early part of 17th century. Probably his time period can be fixed as 1625 A.D.³.

Ayurveda has no limit. Researchers, commentators and compilers on the basis of their wisdom use to present their works for better acceptance time to time. So did the present scholar. The ever-flowing wisdom of ancient medical texts are metamorphically analyzed with the thoughts of different commentators of different times and with the logical reasoning. The confinement of any subject, particularly of the medical text, is not desirable at any stage in any aspect. The extensive study of any subject is fulfilled right from the outlook of the grammar, meter up to the nano-analysis of the content of subject matter. Considering this, analytical views from all possible angles are presented along with different annotations and indexing⁴.

To fulfill the above all aspects the present Research work is undertaken.

Objective:

1. To collect and decipher two important commentaries on Lolimbarajas vaidya Jeevana
2. To collate and critically edit the two important commentaries on Lolibarajs Vaidya Jeevana to know their contributions.

Methodology

SOURCE FOR CRITICAL EDITION:

The present manuscript is obtained from two sources such as

1. D.K. Jain Oriental Research Institute, Ara, Bihar. And
2. Bhandarkar Oriental Research Institute, Pune. Its list is as below⁵



Sl. no	Name of book	Author	Commentaries and author	No of folios	Language	Place of availability	Accent-Mss No.
1	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	33	Devanagari	BORI 1093/ 1886-92	R-1
2	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	101	Devanagari	BORI 463/ 1895-98	R-2
3	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	26	Devanagari	BORI 353/ 1879-80	R-3
4	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	48	Devanagari	BORI 948/ 1891-95	R-4
5	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	30	Devanagari	BORI 178/ 1882-83	R-5
6	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	07	Devanagari	BORI 618/ Vi¾-1	R-6
7	Vaidyajeervanasateeka	Lolimbaraja	Rudrabhatta	52	Devanagari	BORI 306/ Vi¾.1	R-7
8	Vaidyajeervanasateeka	Lolimbaraja	Harinatha	40	Devanagari	BORI 462/ 1895-98	H-1
9	Vaidyajeervanasateeka	Lolimbaraja	Harinatha	66	Devanagari	BORI 913/ 1887-91	H-2
10	Vaidyajeervanasateeka	Lolimbaraja	Harinatha	30	Devanagari	BORI 653/ 1895-1902	H-3
11	Vaidyajeervanasateeka	Lolimbaraja	Harinatha	41	Devanagari	BORI 238. B/ A 1883-84	H-4
12	Vaidyajeervana	Lolimbaraja	-	27	Devanagari	BORI 374/ 1882-83	H-5
13	Vaidyajeervana	Lolimbaraja	Harinath	57	Devanagari	Zen informatics Arrah, Bihar- 76/42	H-6 D

Note :

Sigla (special identification mark given to codex) - R- Denotes - Lolimbaraja with Rudrabhatta commentary (Deepika) of BORI

Sigla - H- Denotes - Lolimbaraja with Harinath commentary (Goodhartha deepika) of BORI

Sigla -H-6 D- Denotes -Lolimbaraja with Harinath commentary (Goodhartha deepika) of Arrah, Bihar are being utilized to compare Rudrabhatta and Harinath commentaries on Lolimbaraja's Vaidya jeevana.

RUDRABHATTA, STYLE AND NARRATION

The Vaidyajiřvana takes the form of a conversation between the narrator and his mistress, as we are explicitly told at the end of the fifth vilāsa. The narrator is identified as the author at several places but we are given no real idea of who the lady in question is. Lolimbarāja spends much time elaborating on her beauty, and she is clearly his lover, but he also refers to her as g»hi³š ('lady of the house') which perhaps suggests she is his wife. She is often addressed as 'Ratnakalā' and it is said that Lolimbarāja married a daughter of a Muslim to whom he later gave this name. His addresses and admonitions to her – through which we learn about her and their relationship; her voice is rarely heard, one such instance being this verse –

Poet -mÉëÉhÉâµÉUââ ÌmÉërÉiÉqÉâ,
 P- ÌMüÇ uÉSÉÍqÉ,
 P -iÉÏiMüqÉÑ qÉ×aÉÉÍcÉ,
 P - xÉqrÉMçü zÉ×hÉÑ mÉëhÉlÉrÉlÉ,

Beloved -uÉS,
 B - iÉiMüÉlÉ,
 B - rÉSÍalÉMüÉËU,
 B - mÉëhÉlÉrÉlÉç zÉ×hÉÉâÍqÉ,

The commentator tells us that the work is elaborated with the question and answer (praśnottara)

format popular in Sanskrit literature (he also though tells us that it consists of prose and verse – gadya and



padya – although there is only one very short prose part which appears to be an interpolation). The author does at one point ask the lady, “why do you keep asking me...” (2.4) about the use of a certain drug to cure a disease, but in fact it is a one way conversation punctuated only by rhetorical questions. Having an internal audience of course allows you to indirectly address your external audience. Thus when the lady’s attention starts to flag, Lolimbarāja urges her – and us, the readers - to listen to his words.

The text is almost entirely dedicated to a description of various drugs prescribed for various diseases and their symptoms. It is thus much narrower in scope than the ‘three great texts’ of Ayurveda: the Caraka Samhita, Suśruta Samhita and A $\frac{1}{2}$ āṅgharḍaya. The prescriptions provided are short on detail. Only in a few places does Lolimbarāja note the quantities of each ingredient and he rarely describes how the drug should be prepared. A more typical verse, for example, is:

sÉĀĪWūiÉcÉISiÉmÉ©MūkÉÉlrÉÉ
 ĪNū*ÉĀWūÉĪmÉcÉŅqÉISMūwÉÉrÉÉ |

ĪmÉ*ÉMūTūeuÉUSÉWūĪmÉmÉxÉÉ
 uÉÉĪliÉluÉiÉÉzÉWŌūiÉÉzÉMūUÉ xrÉÉiÉç ||22||

The instructions given would thus only really be useful for someone who already had a good idea of how to prepare such medicines and perhaps such a knowledge, derived from Caraka and so on, is presupposed.

The author, more than once, extols the virtues of following dietary principles to stay healthy as in the verse 1.10 where medicine is said to be of no use if a patient was following the prescribed diet (pathya) and if the patient *wasn't* following the right pathya then medicine would be ineffective. The commentator has seen in this verse a gomutrika bandha, a type of citra-kāvya (figurative poetry). Whether or not this was intended, the Sanskrit construction, which makes both lines sound identical, adds to the rhetorical effect of such grand statements.

We can perhaps explain the several references to women as a cure for various illnesses by the same reasoning. As with the worship of divinities, turning to women to restore your health is not without precedent in the Ayurvedic tradition. In śiśirartu – late winter or early spring – embracing a woman is a good remedy for the cold. Lolimbarāja, though, is unusual in suggesting that young beautiful girls, in addition to many traditional seasonal delights (and generally not those of śiśira) such as the cuckoo’s song, can cure a disease such as a pitta jvara. He twice tells us that drinking the

nectar of your lover’s lip is a substitute for, or even better than, the traditional medical remedy for a disease.

Kāvya intrudes in many other ways too, most plainly in the long and elaborate addresses to Lolimbarāja’s lover. It is not unusual to find three fourths of a verse dedicated to a set of complex vocatives followed – often rather bathetically – by a quick note on which medicine will cure diarrhoea. For example:

qÉ×aÉqÉSĪuÉSÉxÉssÉsÉÉOūqÉkrÉā
 qÉ×aÉqÉSŪÉĪhÉ sÉĀcÉiÉÉ²rÉāiÉ |

qÉ×aÉiÉ×mÉiÉiÉŌSĒU ĪxšÉ
 ĪmÉ*ÉeuÉUqÉmÉWūĪliÉ cÉ UāhÉuÉÉ MūwÉÉrÉÉ
 ||18||

Plants too sometimes find mention less for their medicinal properties than their beauty. A description of the śyāma creeper (2.10), for instance, adds its medicinal use almost as a footnote, and a verse on the bakula tree (4.28) – a favourite of poets, particularly in descriptions of vasanta (spring) – seems to have no medical information at all.

Ala±kjas (figures of speech), as well as a prahelikā (riddle), are also used, and in particular the upamā (simile) where the author draws on a range of natural, mythological and poetic examples to explain the action of a particular drug or disease. Sometimes these serve more to entertain than to enlighten, eg:

ĪuÉSÉÉiÉiÉĪuÉSÉxÉāiÉ ĪuÉSÉÉiÉxÉWŌūSrÉç
 rÉjÉÉ |

iÉjÉÉ aÉŅQŌūcÉĪuÉµÉāiÉ
 WūUāSÉqÉxÉqÉĪUāhÉqÉç ||23||

And at one point (1.69) he offers himself as the standard of comparison in an upamā (simile) where a particular drug removes viśama jvara just as he rolls at his lover’s feet to remove her anger.

We find further evidence of this desire to enliven the text in the author’s constant efforts to vary the vocabulary and syntax, for instance the use of the expression ‘hartā bhavet’ to avoid a repetition of ‘harati/pariharati’. He also uses a great deal of synonyms, both for plants and diseases. Thus we have ‘hanumaj-janaka-jvara’, literally a ‘Hanuman’s-father-jvara’ or ‘vāta-jvara’ because Hanuman’s father is of course the wind, vāta.



TRANSMISSION OF THE TEXT

Manuscript

This edition is based on a seven manuscript of the Vaidyājīvana, obtained from different sources with their details are as given above.

Adhikarana	Shloka no.	Contents
1) Prathama Vilasa	82 shlokas (verses)	Various concepts like Vaidya karthavya, Pathya, Mudavaidya tiraskara, Doshavaishmya-samyata, Jvara types and its treatment
2) Dviteeya Vilasa	29 shlokas(verses)	Udara, Atisara, jvaratisara, Grahani, Sangrahani
3) Truteeya Vilasa	47 shlokas (verses)	Kasa and Shvasa
4) Chaturtha Vilasa	45 shlokas (verses)	Kshaya and other diseases like shotha, pama, vyanga, daha, trushna.
5) Panchama Vilasa	24 shlokas (verses)	Vajikarana, Rasayana yogas and Rasashoudhis and agrya aushadhis

There are five chapters Named as 'Vilasa;.

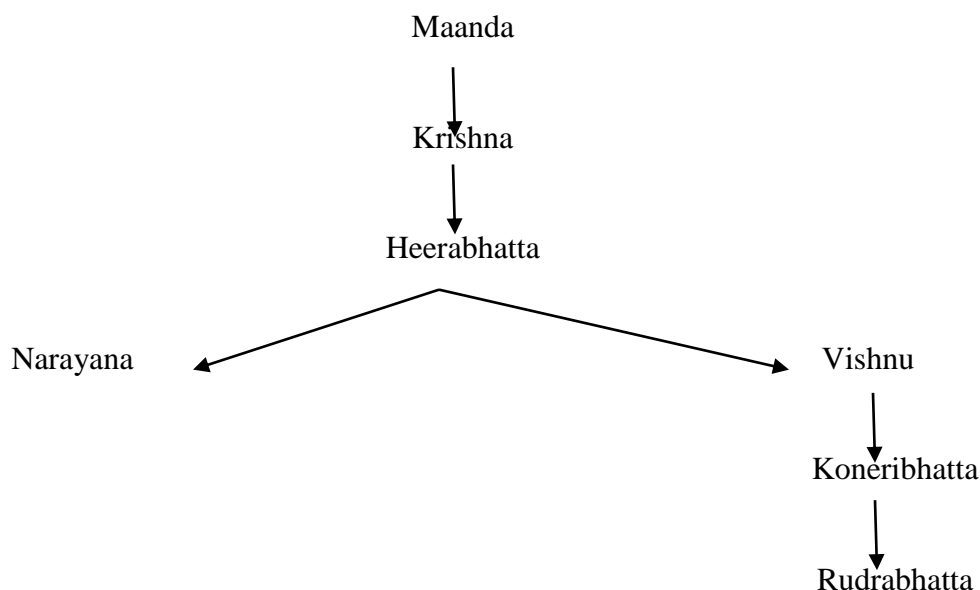
ABOUT THE COMMENTARY DEEPIKA BY RUDRABHATTA

ABOUT THE COMMENTATOR, TIME AND PLACE:

According to the internal evidences in the manuscript, we can assume that author (commentator) of this text as Rudrabhatta. He hails from the place at the junction of Godavari and Sindhu, resides on the banks of river Godavari admist Shatlekhaka named village.

Rudrabhattas family was known for knowledge of Ayurveda. He says that his ancestor named Krishna has written a commentary on Charaka samhita. His father Koneribhatta was in royal scribe in the palace of Abdur rahim Khankhana (1556-1623). His father was named as "Chiranjeeva". Rudrabhatta says that he has written commentary on five texts. This Deepika commentary on Lolimbaraja was composed by the order of King Mirja Khan. Mirja Rahim was named as Abdur rahim Khankhana by King Akbar. Lolimbaraja was equivalent to King Akbar. So Koneribhatta was at the same time of King Akbar.

Family of Rudrabhatta





Date

Lolimbaraja pertains to mid of 16th century and initial of 17th century. The commentary of Rudrabhatta named Deepika is first on Lolimbaraja. So by this and even by internal and external evidences the time period of Rudrabhatta can be placed at initial part of 17th century⁷.

Other works of author:

The Scribe, Style, Errors and Peculiarity:

The manuscript suffers from a variety of mistakes, including:

- Scribal errors:
 - o Of syllables: eg: in R 1, R 2, R 3, R 4 a¹/₂ila⁻ for akhila⁻ in the commentary on 1.5
 - o Of repeated words or parts of words, eg: R 5, R 6 and R 7 asati in the commentary on 1.10 is repeated unnecessarily
- Spelling errors, eg: s for ś, omission of c in eg: icchā. At times whole words are repeatedly misspelt, for instance '¾u³h§' (ginger) which appears as su³th§, su³h§ and so on.
- Sandhi errors, particularly visarga and anusvāra sandhi
- Grammatical errors, eg: R -1, R-3, R-5, R- 6 sevet for seveta
- Omissions:
 - o Of letters or parts of words, eg: m»gan»patanĀdari for m»gan»patitanĀdari (1, 2 5, .18)
 - o Of words, eg: 1.2. 3. 4. 5. 1 the last element, '-tara±gai' of the compound at the end of the verse has been omitted.
- Metrical errors: Eg, in the execution of p»thv§ meter, 5, 4, 7, (part 2).
- Misquoted excerpts (only found in the commentary), eg: a corruption of the well known phrase eÉÉiÉÉæ eÉÉiÉÉæ rÉSÖiM×ü'Ç iÉSè U|ÉqÉIpÉkÉIrÉiÉâ is found in the commentary on 1.2. 3. 4. 5. 7. / 2

It is not possible to ascertain whether all or some of these are errors committed by the author and commentator, or by a scribe at some point in the text's transmission or by the lithograph printer. Unfortunately it was not possible to obtain another

manuscript to better understand the source of the errors and to work towards a critical edition.

Peculiar words

No such of peculiar word are found in the mss.

Language

Marginal writings and inter linear additions of R-1, R-2 & R-5 Mss. and In R- 7 Marginal writing is present in Hindi script.

Different Yoga- Ekamulika prayoga, Rasoushadhi Lepa, Kashaya and various Paana and yogas and are the specialty of Deepika commentary, along with it all other kinds of preparations are also explained.

Method of Preparation-The author has used different method of preparation for little yoga.

Use of various Synonyms-The author has used various synonyms for herbal as well as mineral drugs for easy understanding that are having a specific root meaning and useful in understanding the drug accurately.

Emendations and Corrections

To avoid excessive footnotes, we have corrected commonly occurring mistakes (Eg: Incorrect use of s, ś) and mis-spelt words (Eg: ¾u³th§) in the text without comment.

Where it was certain beyond doubt what the correct word or phrase should be, we have emended the text and added a footnote giving the original, incorrect reading.

In all other places, we have preserved the original, incorrect reading and added a suggested emendation in the footnote.

Publications

The Vaidyājīvana has been published as part of the Krishnadas Ayurveda series by the Krishnadas Academy. It includes an English translation by Nirmal Saxena.

GUDARTHA DEEPIKA BY HARINATHA GOSWAMI I:

A total of five manuscripts were collected from Oriental Research Institutions and manuscript libraries from India i.e from BORI-Pune, Zen library Arrah, Bihar and their details are given above.

Gudarthā Deepika contains five Vilasa as,



BRIEF CONTENTS OF WHOLE GUDARTHA DEEPIKA:

There are five chapters Named as 'Vilasa;.

Adhikarana	Shloka no.	Contents
1) Prathama Vilasa	73shlokas (verses)	Various concepts like Vaidya karthavya, Pathya, Mudavaidya tiraskara, Doshavaishamya-samyata, Jvara types and its treatment
2) Dviteeya Vilasa	23 shlokas(verses)	Atisara, jvaratisara, Grahani, Sangrahani
3) Truteeya Vilasa	46 shlokas (verses)	Kasa and Shvasa
4) Chaturtha Vilasa	43 shlokas (verses)	Kshaya and other diseases like shotha, pama, vyanga, daha, trushna.
5) Panchama Vilasa	20 shlokas (verses)	Vajikarana, Rasayana yogas and Rasashoudhis and agrya aushadhis

In Vaidya Jeevana, easily available and very practical formulations with respect to the diseases and Vajikarana and Rasayana are documented. Critical edition and translations of the concepts is need of the hour. Need of the hour is met by critically editing it, for the recognition of its contributions of the Harinatha Goswami in understanding of original text Vaidya jeevana to the treatment of all diseases by using single and multiple drugs for better practice. Gudarth Deepika by Harinatha Goswami commentary on Lolimbaraja's Vaidya jeevana is critically edited by acquiring all possible manuscripts present with the name cited above. Researchers and commentators based on their wisdom; use to present their works for better acceptance from time to time, so did present scholar in writing Gudarth Deepika. The ever-flowing wisdom of the ancient medical text is Metamorphically analyzed with the thoughts of different commentators of different times and with the logical reasoning and presented with the best possible ways.

SOURCE

There are five manuscripts obtained for the study, all the copies of the text for its availability was identified using Descriptive catalogue of Sanskrit manuscripts published by BORI, Poona in 19391, Sanskrit medical manuscripts in India published by Central Council for Research in India Medicine and Homeopathy⁸, New Delhi and New Catalogous Catalogorum published by University of Madras; 1968.Vol 2⁹ their details are given above.

ABOUT THE COMMENTARY GUDARTHA DEEPIKA BY GOSWMI HARINATHA

ABOUT THE COMMENTATOR, TIME AND PLACE

According to the internal evidences in the manuscript, we can assume that author (commentator) of this text as Harinatha Goswami. He is son of

Manohara and grandson of Lakshmi Das. He learnt the Haripradhana Dharma by Goswami. Surname of Harinatha as 'Sharma'¹⁰.

In H-4 scribe has mentioned as Harinatha was from the area named Kushpur (Kashmira??) which was on the bank of Vaitastya (River) ¹¹, the modern name of Vitasta is Jhelum has been adopted from the city of Jhelum. This river flows near border of Kashmir and Pakistan.

DATE

The exact period of author cannot be fixed, nowhere in Mss Mentions about author time period. As per the internal and external evidences, the time period of author can be fixed at 17th CAD. Harinatha assigned to the period of 1730.A.D.

OTHER WORKS OF AUTHOR: No any other works are found by the name Harinatha Goswami.

THE SCRIBE, STYLE, ERRORS AND PECULIARITY:

H 1, H 3 are having Commentary above and below the main verse and in middle main verse is given, whereas H 2 and H 4 are commentary continues with main verses. H 5 having only Main verses, not commentary part.

Scribe has defaced the deleted matter with the ink. Errors/missing letters or words are corrected by simple insertion. Few shlokha numbers are missing/ miss placed. Few are of transposition, orthographic peculiarities. Where alpakshara is present, scribe has corrected by placing 'm' and 'i' over letter over the letter to make it deergakshara..In the place of 'oÉÉâsÉÉ' the scribe has written

The common scribal errors found in
Usage of 'LÉÉ' in the place of 'hÉÉ',
Usage of 'mÉ' in the place of 'rÉ',
Usage of 'šmÉÉÉ' in the place of 'AÉ',
Usage of 'uÉ' in the place of 'oÉ',
Usage of 'Nû' in the place of 'jÉ',
Usage of 'xÉ' in the place of 'zÉ',
Usage of '®É' in the place of 'kÉÉ'



H-4 - Usage of 'YMüü' in the place of 'NÉ',

Peculiar words

No such of peculiar word are found in the mss.

Language

The Sanskrit language is used in all manuscripts of Gudārtha Deepika. Sanskrit is an enriched and scientific language for the absolute expression of thoughts and ideas and therefore, this language was also used in writing or studying of the medical texts to codify the contents within a brief and to enact within the reach of the human intellect.

Marginal writings and inter linear additions of H-1, H-3 & H-4 Mss. and In H-4 Marginal writing is present in Hindi script.

Different Yoga- Kashaya, Lepa, various Paana and Rasoushadhi yogas and ekamulika prayoga are the specialty of Upacharasara, along with it all other kinds of preparations are also explained.

Method of Preparation-The author has used different method of preparation for little yoga.

Use of various Synonyms-The author has used various synonyms for herbal as well as mineral drugs for easy understanding that are having a specific root meaning and useful in understanding the drug accurately.

Publications

No any publications found till date on this commentary.

CONCLUSION

Vaidya Jeevana text is easily available and in it very practical formulations with respect to the many diseases with Vajikarana, Rasayana and Agryoushadha are documented. So the need of critical edition is met by critically editing the commentaries on it namely Deepika by Rudrabhatta and Gudārtha Deepika by Harinatha to know the treatment of various diseases by using single and multiple drugs for better practice in present era.

Deepika by Rudrabhatta a beautiful commentary on Lolimbaraja's Vaidya jeevana has given his genealogy as grand son of Vishnu and son of Koneri Bhatta. He has mentioned his place as a beautiful city "Satsketaka" situated on the banks of river Godavari near its confluence with Sindhu. His father was Koneri bhata and grand father was Vishnu. He states that Krishna named person in his family has written a commentary on Charaka Samhita.

Gudārthadeepika by Goswami Harinatha commentary on Lolimbaraja's Vaidya jeevana deals with elaborate and easy explanation of each verses of Vaidya jeevana text. Being a commenatary on Vaidya jeevana, the author comments and helps in easy understanding of the original text.

The text explains treatment for sixty diseases. All of these are described systematically in five Vilasa (chapters) of Vaidya jeevana with unique manner.

Rudrabhatta mentions his time period in the commentary Deepika as close to as King Abdul Rahim Khan (1556-1626). Rudrabhatta tells that as per direction of Khana Khana (another name of Abdul Rahim Khan given by King Akbar) the Deepika commentary was being composed by him. And even from external and internal evidences suggest to assign the time period of Rudrabhatta as initial part of 17th century

According to external and internal evidences time period of author Harinatha assigned to the period of 1730.A.D. He was son of Manohara and grandson of Lakshmi Das. He learnt the Haripradhana Dharma by Goswami. Harinatha's Surname is used as 'Sharma'

So both the commentaries viz. Deepika Rudrabhatta and Gudārthadeepika by Goswami Harinatha on Lolimbaraja's Vaidya jeevana helps in better understanding of diseases as well as their treatment application in day today clinical practice.

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A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME REGARDING MNEMONICS IN ENHANCING THE PERCEIVED MEMORY AMONG THE (SECOND YEAR OF DGNM & B.Sc) NURSING STUDENTS IN KMC COLLEGE OF NURSING AT TRI

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ABSTRACT

A study assess the evaluate of structured teaching programme regarding mnemonics in enhancing the perceived memory among the DGNM & B.Sc nursing students. The Research approach used for this study was quantitative approach. The research design for this study is pre experimental research design. The study was conducted at KMC College of Nursing at Trichy, TN State. The sample size for the study consist of 52 college students. Purposive sampling technique was used and the college students. Data analyzed by using descriptive and inferential statistics on the basis of objectives and hypothesis of the study. The data was planned to be presented in the form of tables and figures. In present study, show that distribution of sample according to the level of knowledge on pre-test 51(98.1%) of college students had inadequate level of perceived memory, 1(1.9%) had moderate level of perceived memory. Whereas during post-test 23(44.2%) of college students had moderate level of perceived memory and 29(55.8%) of college students had adequate level of perceived memory. Data on evaluate of planned teaching programme on level of perceived memory on mnemonics among college students. Paired 't' test was used and it reveals that difference observed between the value of pre-test and post-test were true difference. Thus, it proves that the structured teaching programme regarding mnemonics to enhance the perceived memory among college students is effective at 5% ($p < 0.001$) level. It's reveals that there is significant association found between pre-test level of perceived memory of college students with their educational qualification of parents, at 5% ($p < 0.05$) level.

KEY WORDS: Assess, effectiveness, mnemonics, college students.

INTRODUCTION

"The more often you share what you've learned, the stronger that information will become in your memory".

It is a great to reminisce about good memories of our past. It was enjoyable when it was today. So learning to enjoy today has two benefits. "It gives me happiness right now, and it becomes a good memory later".

-George Foreman

Memory is the faculty of the brain in which information is encoded, stored and retrieved when we needed. Memory is a vital to experiences it's a

retention of information over time for the purpose of influencing future action. "If we can't remember past events, we can't learn or develop language, knowledge, relationships or personal identity".

-Wikipedia

Memory is defined as retention of learned information and experiences. It is an extension of learned information and experiences as well. Thus memory is a distinct cerebral function, separable from other cognitive abilities. However it is not a unitary faculty of mind but is composed of multiple systems that have different operating principles and neuro anatomical regions. Memory is the ability to maintain primarily learned information with an



internal storage system, so that it may be accessed at present or later. The stored information can be retrieved and utilized at any time in life whenever needed.

Memory is formed from the time that we are born and it is a continuous process of events, experiences and situations which we receive through the senses. This vast information should be stored in a systematic manner so that it can be easily retrieved when necessary. This is like trying to locate a particular book from a huge library. If there is a proper catalogue, list made with reference to either subject, title or author of the books then finding the book is very simple task but if all these lists or catalogues are unavailable, locating the book becomes a very tedious and confusing job.

A man's personal recollections have a definite place in developing and maintaining his relationship with others. Remembering the names of your classmates of the 8th standard is not easy. You may remember many of them but not all. No one is able to recall anything without memory. Thus memory is a part and parcel of personality. It occupies a central place in our learning. Memory is a mark of competence and it has a sound sense of personal identity. It is a must for a successful professional career.

Memory is a highly selective process in which you perceive the past and it guides your future. The capacity to recall persons, names, things etc, is what you covert or looks for your life. Good memory is a sure sign of sound learning and you cannot learn if you are unable to remember. When we mix up learned materials with all other sorts of knowledge that is stored in our memory the task of remembering becomes more difficult. We should not make a mess of things learned. The teachers often ask us to learn our lessons well, so that we can remember them for a long time. But over learning doesn't always work.

MNEMONICS

The term memory comes from a Latin word 'mnemonic', meaning "to be mind full of" or "to serve as a reminder" the term memory refers to what is retained-the total body of remembered experience, as well as a specific experiences, that is being recalled. So memory is either retaining experiences or identifying, recalling them successfully at the right moment. Memory is an integral part of our day to day life. In every work that we do and every form of communication, we rely completely on memory of past experiences, conversations, information and skills. It is also the most important and fundamental aspect of the teaching learning process. In the teaching learning process, the learner has to remember the information, knowledge and wisdom gathered by self and others. There is a definite process through which all this is stored in the brain.

A mnemonic device (memory device), it is a learning technique that backing information retention or retrieval (remembering) in the human memory. Mnemonic devices are techniques for improving memory. People with super memories sometimes use mnemonics, and we can also learn to do so. Most of the mnemonics, techniques depend on the linking, or association, of to be remembered material with a systematic and organized set of images or words that are already forcibly established in long term memory and can therefore serve as reminder cues.

The word "mnemonic" is derived from the ancient Greek word, meaning "of memory, or related to Mnemosyne ("remembrance"), the name of the goddess of memory in Greek mythology. Mnemonics is an antiquity were most often considered in the context of what is today known as the art of the needed.

A mnemonic, also known as memory aid, is a tool that helps you remember an idea or phrase with a pattern of letters, numbers, or relatable associations. Mnemonics devices include rhymes and poems, acronyms, images, songs, outlines, and other tools. Mnemonics is derived from the Greek phrase *Mimneskesthai* meaning to "remember".

Thus it becomes important to give a serious thought to memory and memorization. If memorization is the doorway to all mental and physical activities, it should be learnt in a systematic manner. There are various techniques through which this is possible. Mnemonics are memory techniques which make the process of memorization interesting and effective. These are methods in which any given information can be memorized using principles of association, attention, organization, meaningfulness and visualization.

Mnemonics are cheat codes for those who struggle with memorizing a certain complicated subject, list, or concept. They follow us to use more memorable phrases that tie the concepts we want to memorize to our minds. They allow us to quickly and successfully learn, and remember key concepts in a variety of subjects from English to Math. They work because our minds tend to remember information to which we can relate or experience. Mnemonics have been proven to work as tools of memory forming for a variety of tasks. They aid doctors, scientists, geologists, artists, and students. If you're struggling to remember something consider making yourself a mnemonic.

Mnemonic strategy to optimize the content of the nervous system which is structurally necessary, considering the methods that can be used to recall material to structural techniques will also help. Hence we close with mnemonic devices which are systems or brief methods designed to improve memory, and these provide a useful summary of our prior discussions. But first a comment about cueing.



Mnemonics techniques have some positive non memory side effects, such as increasing motivation to study in one of the study students are reported on a survey that having acronyms on a review sheet made it easier for them to remember course content and made them start studying earlier. In other studies show that students think that some mnemonic techniques are easier, faster, more enjoyable, and more useful than note rehearsal, and that mnemonics can reduce examination anxiety. Although preliminary these results mesh with anecdotal reports about students enjoying the use of mnemonics, and suggest that mnemonics may have some additional motivational benefits that could increase their utility in educational contexts.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of planned teaching programme regarding Mnemonics in enhancing the perceived memory among the nursing students (Second year of DGNM & B.Sc) in KMC College of Nursing at Trichy.

OBJECTIVES

- To assess the pretest level of perceived memory among the DGNM and B.Sc nursing students.
- To assess the effectiveness of planned teaching programme regarding mnemonics in enhancing the perceived memory among the DGNM and B.Sc nursing students.
- To find the association between pre - test level of perceived memory among the DGNM and B.Sc nursing students with their selected socio-demographic variables.

OPERATIONAL DEFINITION

Effectiveness :

It refers to extent to which planned teaching programme on mnemonic's to enhance the perceived memory among has achieved the desired effect in improving the memory of college students as evidenced by gain in post test score.

Mnemonics :

It refers to memory device used for memory retrieval. Any of several techniques or devices used to help remember or memorize names or concepts.

Perceived Memory :

It refers to obtaining of the memory by way of perception of the children.

Teaching program :

It is a systematically developed teaching program designed for children to provide information regarding mnemonic's.

College :

It is an institution designed to provide learning space & for teaching of the students under direction of teacher.

HYPOTHESIS

H1: There will be a significant difference between the pretest and post test level of perceived memory among the nursing students.

H2: There will be significant association between the pretest level of perceived memory among the nursing students with their selected demographic variables.

ASSUMPTION

- Mnemonics will be improve the perceived memory of the DGNM & B.Sc nursing students.
- Planned structured teaching program will help them to improve their perceived memory of the DGNM & B.Sc nursing students

DELIMITATIONS

- The study was undertaken in single setting and samples were selected on the basis of purposive sampling.
- The study is limited to only the DGNM & B.Sc nursing 2nd year students who are studying in selected nursing college trichy
- The period of study is limited to 4 weeks.

RESEARCH METHODOLOGY

RESEARCH APPROACH

For the present study quantitative approach has been selected.

RESEARCH DESIGN

For the present study pre-experimental one group pre-test and post- test design was selected. There was manipulation of independent variable (planned teaching programme)

O1.....X.....O2

O1: Assessment of perceived memory regarding mnemonics among the second year of DGNM & B.Sc nursing students before planned teaching programme.

X: Planned teaching programme.on mnemonics on enhancing perceived memory.

O2: Assessment of perceived memory regarding mnemonics among the first year of DGNM & B.Sc nursing students after planned teaching programme.

VARIABLES

Independent variable:

Planned teaching programme.

Dependent variable

Mnemonics to enhance the perceived memory among college students.



SETTING OF THE STUDY

The study was carried out in KMC College of Nursing situated in Trichy district, Tamilnadu state. This college consists of DGNM & B.Sc Nursing programme. It is headed by a principal and nursing teaching faculty are working in this college. Apart from the academic curriculum music, sports, yoga and other extra activities has also being taught to the students.

POPULATION

All the nursing students studying in the college.

Target population: In this study target population comprise of college students studying in second year of DGNM & B.Sc nursing students.

SAMPLING

Sample

The samples for the present study were college students studying in second year of DGNM & B.Sc nursing students in KMC college of nursing at Trichy district, Tamilnadu state. Who meets the inclusion and exclusion criteria of the study.

Sample size

The sample size comprised of 52 nursing students studying first year of DGNM (16) & B.Sc nursing (36) in KMC college of nursing college at Trichy, Tamilnadu state.

Sampling technique

Purposive sampling technique was used to select the sample for the present study.

SELECTION CRITERIA

The samples were selected based on the following criteria

I. Inclusion criteria

The study is limited to the college students, who

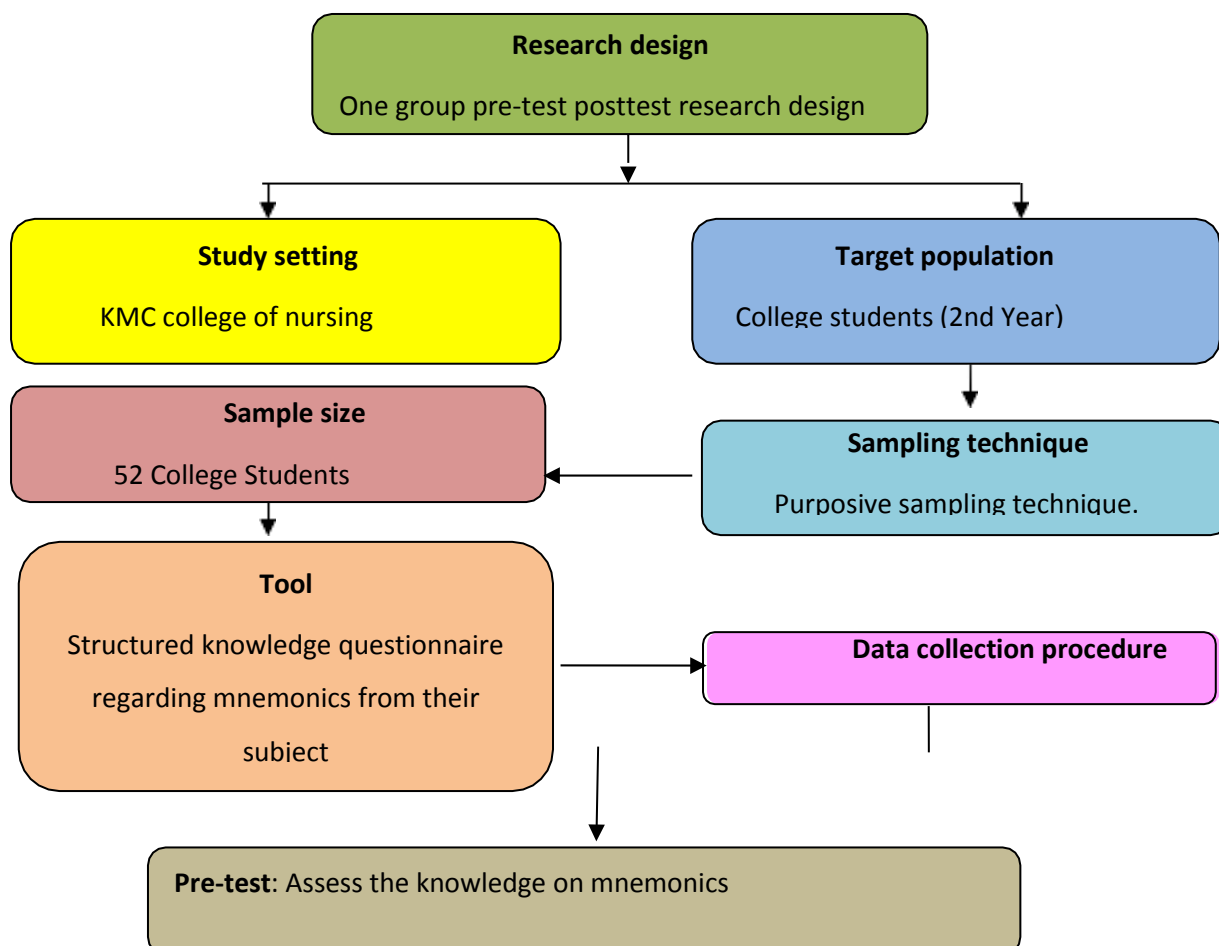
- Are studying second year of DGNM & B.Sc nursing students.
- Can able to understand, read and write English
- Are willing to participate in the study

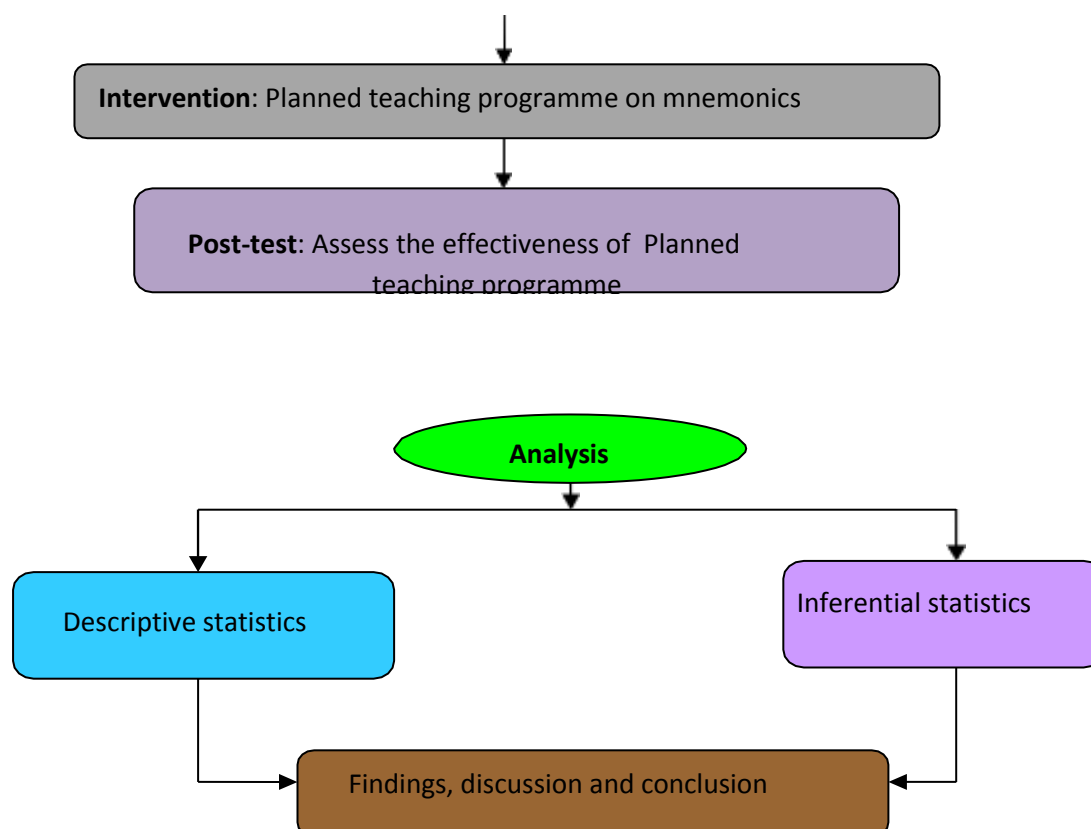
II. Exclusion criteria:

The exclusion criteria are the subjects who

- Are suffering from any diagnosable physical or mental disorder.
- Are absent on the day of study.

FIGURE:1 SCHEMATIC REPRESENTATION OF RESEARCH DESIGN





DESCRIPTION OF DATA COLLECTION INSTRUMENT:

Tool consists of two parts.

Section I: Socio- Demographic data

It consists of age, sex, class of studying, educational qualification of parents, occupation of parents, family income, religion, domicile, type of house, type of family and favorite subject.

Section II : Multiple choice knowledge questionnaire. It includes the items related to mnemonics from their subject of Medical Surgical Nursing.

Scoring procedure:

There were 30 items pertaining to multiple choice knowledge questionnaire on mnemonics from their subject. Each item has four options the score "one" was given to correct response and "zero" was given to wrong response. The maximum score was 30. The level of knowledge was categorized based on the percentage of score obtained.

Validity and reliability of the tool

Validity:

Content validity of the tool was established by sending the tool to the experts concerned in field of mental health nursing. Their options and suggestion were taken to modify the tool.

Reliability:

Reliability of the tool was tested during pilot study. Cronbach's alpha method was used to find out the reliability of the checklist method. The reliability (r) was found to be 0.86.

Preparation of final draft:

The final draft of the multiple choice knowledge questionnaire and video assisted teaching content was prepared after testing the reliability, validity and in consultation with the guide.

Pilot study

Pilot study was conducted from 25.11.2019 to 30.11.2019. 6 students from KMC college of nursing at Trichy, were selected by purposive sampling technique. Samples selected for the pilot study were not included in the main study and the study was found to be feasible for conducting main study.

Ethical consideration:

- ❖ Written permission was obtained from the principal of KMC college of nursing at Trichy, Tamilnadu state.
- ❖ Informed consent obtained from the college students.

Period of data collection

The data collection was conducted from 02.12.2019 to 31.12.2019. During this period the investigator collected pre-test and post-test data and also



implemented the planned teaching for the 52 samples selected by purposive sampling technique.

DATA COLLECTION PROCEDURE

Stages of data collection

The data was collected in following three stages.

a) Pretest

Pre-test was conducted among the selected samples by using socio-demographic schedule multiple choice knowledge questionnaire method. The data collection was done between 3.30 am to 4.30 pm. The procedure was explained in detail. Approximately 7-8 students were attended the pre-test each day. The duration of pre-test assessment varied from 40 to 45 minutes for each sample.

b) Implementation of planned teaching programme

On the same day of pre-test assessment, the planned teaching programme on mnemonics was conducted by researcher in batches of 20 students. The intervention module consists of information regarding on mnemonics techniques. The time taken for each session of intervention was about 45 to 50 minutes.

c) Post-test:

Evaluation of planned teaching programme on mnemonics was done by conducting post-test on the 8th day implementation of the planned teaching programme by using the same multiple choice

knowledge questionnaire which was used for the pre-test.

Plan for data analysis

The collected data was planned to be organized, tabulated and analyzed based on the objectives of the study by using descriptive statistics such as percentage, mean, standard deviation and inferential statistics such as chi-square and paired t-test. The paired t-test was planned to be used to find out the effectiveness of planned teaching programme and chi-square test to find out the association between demographic variable with pre-test knowledge. The data was planned to be presented in the form of tables and figures.

Summary

A Pre-experimental one group pre-test and post-test research design was carried to find the effectiveness of planned teaching programme on knowledge regarding mnemonics among second year of DGNM & B.Sc nursing students studying in KMC college of nursing at Trichy, Tamilnadu state. Multiple choice knowledge questionnaire and Planned teaching programme was prepared. Analysis was planned to be done by using descriptive statistics and inferential statistics.

ORGANIZATION OF DATA:

TABLE:1 DATA ON COMPARISON OF PRE-TEST AND POST-TEST LEVEL OF PERCEIVED LEVEL ON MNEMONICS AMONG NURSING STUDENTS.

N=52

S.NO	LEVEL OF PERCEIVED MEMORY	PRE-TEST		POST-TEST	
		FREQUENCY	%	FREQUENCY	%
1	Inadequate	51	98.1	0	0
2	Moderately Adequate	1	1.9	23	44.2
3	Adequate	0	0	29	55.8

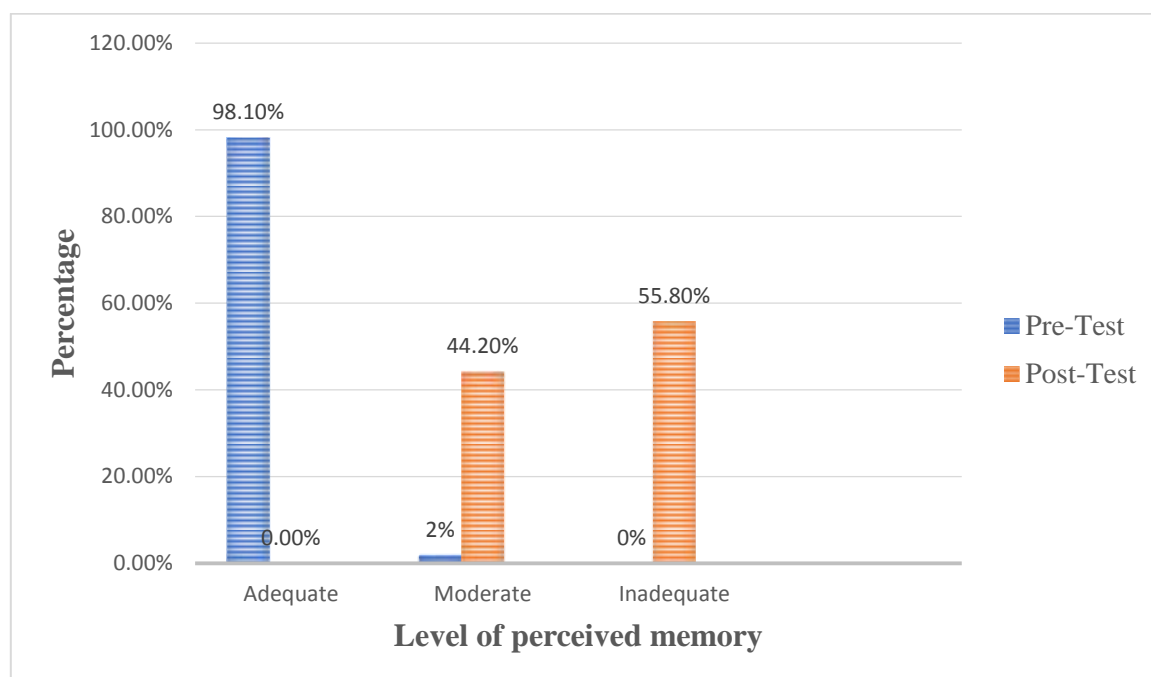


FIGURE 2: COMPARISON OF PRE-TEST AND POST-TEST LEVEL OF PERCEIVED MEMORY ON MNEMONICS AMONG NURSING STUDENTS

Table 1: Shows that in pre-test 51(98.1%) of students had inadequate level of perceived memory, 1(1.9%) of students had moderately adequate level of perceived memory, whereas in post-test 23(44.2%) of students had moderately adequate level of perceived

memory, 29(55.8%) of students had adequate level of knowledge. It represents that level of perceived memory of students were improved in post-test when compared to pre-test.

TABLE:2 MEAN, STANDARD DEVIATION AND MEAN PERCENTAGE OF PRE-TEST AND POST-TEST LEVEL OF PERCEIVED MEMORY AMONG NURSING STUDENTS.

N=52					
S. NO	KNOWLEDGE SCORE	MEAN	STANDARD DEVIATION	MEAN -N %	DIFFERENCE IN MEAN %
1	Pre-test	9.35	2.472	31.16	45.64
2	Post-test	23.04	2.686	76.8	

Figure:3, Shows that in all three dimensions mean percentage of post-test score has increased than mean percentage of pre-test score in level of perceived memory on mnemonics among college students. Pre-test level of perceived memory mean score was 9.35 ± 2.472 (SD) which is 31.16% of the total mean score,

whereas in post-test, the mean score was 23.04 ± 2.686 (SD) which is 76.8% of the total mean score. Difference obtained level of perceived memory of mnemonics 31% to 76% that difference in mean percentage was (45.64%).



TABLE:3 EFFECTIVENESS OF PLANNED TEACHING PROGRAMME REGARDING THE MNEMONICS IN ENHANCING THE PERCEIVED MEMORY AMONG THE NURSING STUDENTS.

N=52

S. No	Knowledge Score	Mean	Standard Deviation	Standard Error Mean	't' Value	df	"P" Value
1	Pre-Test & Post-Test	13.692	2.697	.374	36.604	51	0.000*

***:-Significant at 5% ($p < 0.05$) level**

Table.3 shows that data on effectiveness of planned teaching programme on level of perceived memory on mnemonics among College students. Paired 't' test was used and it reveals that difference observed between the dimension wise mean score value of pre-test and post-test were true difference. Thus, it proves that the planned teaching programme regarding

mnemonics to enhance the perceived memory among college students is effective at 5% ($p < 0.05$) level.

TABLE:4 ASSOCIATION BETWEEN PRE-TEST LEVEL OF PERCEIVED MEMORY AMONG THE NURSING STUDENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

N=52

S. NO	DEMOGRAPHIC VARIABLES	LEVEL OF PERCEIVED MEMORY				Chi Square value	d. f	P VALUE
		INADEQUATE	MODERATELY ADEQUATE	ADEQUATE	TOTAL			
1	AGE							
	a)19 years	35	12	0	47	.439	2	.803 NS
	b)20 years	3	1	0	4			
	c)21 years	1	0	0	1			
2	SEX							
	a)Female	51	1	0	52	0	2	00
	b)Male	0	0	0				
3	RELIGION							
	a)Hindu	33	12	0	45	2.034	3	.565 NS
	b)Muslim	4	0	0	4			
	c)Christian	2	1	0	3			
4	OCCUPATION OF FATHER							
	a)unemployed	0	3	0	3	13.739	3	.003* S
	b)Coolie	33	7	0	40			
	c)Gov't /private employee	1	2	0	3			
	d)Business	4	2	0	6			



5	OCCUPATION OF MOTHER							
	a)House maker	26	11	0	37	1.712	2	.425 NS
	b)Coolie	8	1	0	9			
	c)Gov't /private employee	5	1	0	6			
	d)Business	0	0	0	0			
6	FAMILY INCOME/MONTH							
	a)Below Rs.4000	12	3	0	15	.412	3	.938 NS
	b)Rs.4001-6000	12	6	0	18			
	c)Rs.6001-10,000	5	2	0	7			
	d)Above Rs.10,000	9	3	0	12			
7	EDUCATION OF PARENTS							
	a)Illiterate	7	4	0	11	2.371	3	.499 NS
	b)primary education	10	4	0	14			
	c)High school	20	5	0	25			
	d)Graduate	1	1	0	2			
8	DOMICIDE							
	a)Rural	23	12	0	35	2.529	1	.112 NS
	b)Urban	15	2	0	17			
9	TYPE OF HOUSE							
	a)Hut house	2	1	0	3	.688	2	.709 NS
	b)Pucca house	28	8	0	36			
	c)Thatched house	9	4	0	13			
10	WHICH SUBJECT DID YOU LIKE MORE							
	a)Medical surgical nursing	15	11	0	26	5.983	2	.050* S
	b)Child health nursing	17	3	0	20			
	c)Mental health nursing	6	0	0	6			
	d)Nursing research and statistics	0	0	0	0			

*:-significant at 5% (P<0.05) level



CONCLUSION

This chapter deals with analysis and interpretation of collected data to evaluate the effectiveness of planned teaching programme. This findings reveals that, in all three dimensions post-test mean score percentage was higher than the pre-test mean score percentage. Thus planned teaching programme on mnemonics among the college students was effective at 5% ($p < 0.05$) level and demographic variable that occupation of father and favorite subject have significant association with pretest level of perceived memory of college students.

NURSING IMPLICATIONS

The Nurses and the nursing students should have the knowledge of mnemonics to perform the nursing activities without any mistake and to improve the memory in students, to develop their knowledge level, and to lift up the quality of education etc. The findings of the study have several implications on Nursing education, Nursing practice, Nursing research and Nursing administration.

NURSING EDUCATION

- ❖ This study helps the nursing professors to improve the teaching method.
- ❖ Conference, seminars and workshops can be conduct for nurses to improve their knowledge on mnemonics.
- ❖ The materials collected will help to improve and update their knowledge on mnemonics.
- ❖ The nursing educator should encourage the nursing students to use mnemonics to improve their memory.

NURSING PRACTICE

- ❖ This study helps the nurses to play a good nursing role by improving their memory and knowledge with the help of mnemonics.
- ❖ Nurses have an important role to provide a care without any error/mistake .so mnemonics should be learned by nurses to avoid these errors.
- ❖ Memory is the most important thing for nurses to provide a perfect care at perfect time. So mnemonics will help them to promote their memory.
- ❖ The nurses needs to understand the importance of mnemonics.

NURSING RESEARCH

- ❖ The study findings will support for conducting further study on planned teaching programme.
- ❖ This study encourage the nurses to read, discuss and to conduct the research studies to improve their knowledge.
- ❖ The findings of this study will motivate the researchers to conduct research in various settings.

- ❖ The study helps the nursing researcher to conduct further study related to mnemonics.

NURSING ADMINISTRATION

- ❖ This study helps the nurse administrator to implement the knowledge of mnemonics in nurses to improve their knowledge.
- ❖ The nurse administrator can conduct a classes to nurses working in hospital regarding the mnemonics.
- ❖ The nurse administrator should encourage the nurses to conduct the research regarding mnemonics in various aspects.

RECOMMENDATIONS:

- ❖ The study can be replicated with the large number of samples.
- ❖ A similar study can be conducted in various settings like for school Children.
- ❖ The time series study can be conducted to evaluate the long-term effect of the planned teaching programme on mnemonics in enhancing memory.
- ❖ The similar study can be done with a same approach having a control group.
- ❖ A comparative study can be conducted between different age group.

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MODERN SPECIES COMPOSITION OF ICHTHYOFAUNA IN THE AKHANGARAN RIVER BASIN

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ABSTRACT

*The article presents the results of studies to determine the species composition of the ichthyofauna of water bodies in the Akhangaran river basin of the Tashkent region of Uzbekistan. The modern composition of the ichthyofauna was determined, consisting of 33 species of fish, while 4 species (*Gobio cynocephalus*, *Triplophysa dorsalis*, *Ictalurus punctatus*, *Esox lucius*) were recorded by us for the first time. The species composition of the ichthyofauna of the Akhangaran reservoir has been clarified; it consists of 5 aboriginal fish species and 22 fish species of the Tuyabuguz reservoir.*

KEYWORDS: Akhangaran river, reservoirs, species, ichthyofauna, fish, reservoir.

INTRODUCTION

Among the main environmental problems of our time, the reduction in the diversity of species and ecological systems occupies a special place. Over the past decades, the natural evolution of river and lake ecosystems of the republic has been significantly disturbed under the influence of anthropogenic pressure. The result is the eutrophication of water bodies and watercourses. All this cannot but affect the state of the ichthyofauna and the conditions of natural reproduction of fish, changes in the productivity of fishing grounds and a decrease in fish catch in them, and the efficiency of fishing.

The Akhangaran river is the right tributary of the Syrdarya river, which originates at an altitude of 3500 m above sea level on the northwestern slope of the Chatkal ridge from the confluence of the Aktashsay and Urtalyksay rivers. In the upper reaches of the river, there is the Angren plateau, which is 2100-3400 m above sea level. The water filling regime is snow and rain, and there are many different springs in the river basin filling it with fresh water. The river is 236 km long, the basin area is 5220 km². The average long-term annual runoff is 0.72 km³.

The tributaries - Boksuksay, Tuganbashsay, Shavazisay, Dukentsay, Karabausay, Akchasay, Dzhigiristansay, Kairagachsay, Beshsay, Nishbashsay, Gushsay and others flow into the river. The largest settlements located along the river valley are the cities of Angren and Akhangaran. In the foothill and flat parts of the river, two large reservoirs

have been built - the Akhangaran and Tuyabuguz reservoirs.

The Akhangaran reservoir is a hydraulic structure on the Akhangaran river, which was built for the seasonal regulation of the Akhangaran waters and was filled in 1989. The reservoir is located at the eastern outskirts of the city of Angren, above the coalmine. The reservoir has an approximately triangular, narrow, elongated shape with an extension towards the dam. The height of the water's edge when filling is about 1080 m. In the southeastern part of the reservoir there is a reinforced concrete dam 1350 m long, 12 m wide (at the top) and a maximum height of 100 m. The total volume of the reservoir is 260 million m³.

Behind the reservoir, the Akhangaran River is canalized and flows underground to Jigiristan. The underground section of Akhangaran departs laterally from the southwestern shore of the reservoir. The water accumulated in the reservoir is used for irrigation in the Akhangaran, Urtachirchik, Pskent and Buka regions.

In the summer period 2018-2019, there was a good filling of the reservoir, there is a lot of water, rifts and littoral are flooded. In summer, the water temperature in the upper reaches (at the confluence of the river) was 10-14°C and on average 15-19°C. The color of the water was from green to grayish-green, slightly turbid, the transparency was 1.0-2.0 m (according to the Secchi disk); the nature of bottom sediments along the coast are stones,



pebbles, coarse sand, at a depth - clay with sand deposits.

The Tuyabuguz reservoir is a channel reservoir built for the purpose of seasonal regulation of the Akhangaran river flow. The total volume of the water mass is 250 million m³. The area of the water surface is 20 km², the length is 9 km, the maximum width is 3 km, and the average width is 1.88 km. Depth: maximum - 31.5 m, average - 16 m. The reservoir is purely for irrigation purposes; two irrigation canals extend from the right and left-bank parts of the dam. Water discharge along the right bank canal is 55 m³/s; on the left bank - 20 m³/s.

The Tuyabuguz reservoir belongs to the moderately warm water bodies of the lake type. The nature of bottom sediments along the coast are stones, pebbles, at a depth - gray silt. Soils are represented by alluvial deposits - sand, clay, loam. The color of the water is mainly green, the transparency is 2.5-3.5 m (according to the Secchi disk).

MATERIALS AND RESEARCH METHODS

The objects of study were aquatic biocenoses (phytoplankton, zooplankton, periphyton, zoobenthos and fish) of water bodies of the Akhangaran River basin (Akhangaran and Tuyabuguz reservoirs).

The material on the ichthyofauna of the Akhangaran River basin was collected from 2018-2020. The study of the Akhangaran river channel for more than 200 km, starting from the upper section to the confluence of the river into the Syrdarya, was of a route character with camps in separate sections of the

river for 2-3 days. The collection of material in the reservoirs was carried out stationary. Fishing was carried out with a set of fixed nets with a mesh of 15-70 mm. In addition, the catches of fishermen were analyzed. The collected material was processed and analyzed according to generally accepted ichthyological methods [Pravdin, 1966]. The species of fish was determined according to L.S. Berg [1948, 1949].

RESULTS

The earliest information about the fish fauna of the Akhangaran River can be found in the works of L.S. Berg (1948, 1949) and F.A. Turdakov (1963). F.A. Turdakov (1963) describes seven fish species (*Leuciscus lehmani*, *Gobio gobio lepidolemus*, *Schizothorax intermedius*, *Alburnoides oblongus*, *Nemachilus kuschakewitschi badamensis*, *Nemachilus conipterus*, *Cobitis aurata aralensis*), belonging to two families (Cyprinidae and Cobitidae). Further studies by Z.Y. Kasimova (1967) showed that in the Akhangaran river basin there are 21 fish species belonging to six families.

During the period of our research, in the ichthyofauna of the Akhangaran river basin, we noted the habitation of 33 fish species belonging to 4 orders, 12 families, and 30 genera. The native fish fauna consists of 18 species, the rest are invasive, the majority of which are representatives of the Chinese lowland complex. Of the 33 fish species identified, 4 were noted by us for the basin for the first time - *Gobio cynocephalus*, *Triplophysa dorsalis*, *Ictalurus punctatus*, *Esox lucius* (Table 1).

Table 1.
Species composition of the ichthyofauna of reservoirs of the Akhangaran river basin

№	Family, species, subspecies	Akhangaran river	Reservoir	
			Akhangaran	Tuyabuguz
	Family Cyprinidae			
1.	<i>Rhodeus ocellatus</i>	B	-	-
2.	<i>Luciobarbus conocephalus</i>	+	-	-
3.	<i>Ctenopharyngodon idella</i>	A	-	-
4.	<i>Hemiculter leucisculus</i>	B	-	B
5.	<i>Carassius gibelio</i>	A	-	A
6.	<i>Cyprinus carpio</i>	+		+
7.	<i>Abbottina rivularis</i>	B		B
8.	<i>Gobio lepidolaemus</i>	+	+	+
9.	<i>Gobio cynocephalus</i>	B	-	-
10.	<i>Pseudorasbora parva</i>	B	-	B
11.	<i>Abramis brama orientalis</i>	+	-	+
12.	<i>Alburnoides taeniatus</i>	+	-	+
13.	<i>Alburnus oblongus</i>	+	-	-
14.	<i>Hypophthalmichthys molitrix</i>	A	-	A
15.	<i>Aspius aspius iblioides</i>	+	-	-



16.	<i>Squalius squaliusculus</i>	+	-	+
17.	<i>Rutilus aralensis</i>	+	-	+
18.	<i>Opsariichthys bidens</i>	B	-	B
19.	<i>Schizothorax eurystomus</i>	+	+	+
	Family Cobitidae			
20.	<i>Sabanejewia aralensis</i>	+	-	+
	Family Balitoridae			
21.	<i>Iskandaria kuschakewitschi</i>	+	+	-
22.	<i>Triplophysa dorsalis</i>	+	-	-
23.	<i>Triplophysa elegans</i>	+	+	-
24.	<i>Triplophysa strauchi</i>	+	-	-
	Family Ictaluridae			
25.	<i>Ictalurus punctatus</i>	A	-	A
	Family Siluridae			
26.	<i>Silurus glanis</i>	+	-	+
	Family Sisoridae			
27.	<i>Glyptosternon oschanini</i>	+	+	-
	Family Esocidae			
28.	<i>Esox lucius</i>	+	-	+
	Family Poeciliidae			
29.	<i>Gambusia holbrooki</i>	A	-	A
	Family Percidae			
30.	<i>Sander lucioperca</i>	A	-	A
	Family Odontobutidae			
31.	<i>Micropercops cinctus</i>	B	-	B
	Family Gobiidae			
32.	<i>Rhinogobius brunneus</i>	B	-	B
	Family Channidae			
33.	<i>Channa argus</i>	B	-	B
	Total number of species (subspecies)	33	5	22
	Number of native species	18	5	10
	Number of introduced species	15	0	12

Note: A - acclimatized species; B - randomly introduced species; + - native species.

The nature of the quantitative distribution of ichthyofauna within the Akhangaran river basin is very uneven, which is determined by the hydrological conditions of its individual areas and the ecological characteristics of fish.

The mountainous zone of flow (the upper reaches of the Akhangaran River and its tributaries) is inhabited by three species (*Schizothorax eurystomus*, *Triplophysa elegans*, *Glyptosternon oschanini*) of fish. From the headwaters to the foothills, ichthyocenoses change markedly. The fish fauna of the foothill zone of the current (the area that occupies the course of the Akhangaran River up to the city of Akhangaran) consists of five species (*Alburnoides taeniatus*, *Schizothorax eurystomus*, *Gobio lepidolaemus*, *Iskandaria kuschakewitschi*, *Triplophysa dorsalis*).

The largest number of species was recorded in the flat part of the river. Such species as *Abramis brama orientalis*, *Alburnoides taeniatus*, *Aspius aspius iblioides*, *Carassius gibelio*, *Cyprinus carpio*, *Gobio lepidolaemus*, *Squalius squaliusculus*,

Luciobarbus conocephalus, *Rutilus aralensis*, *Schizothorax eurystomus*, *Silurus glanis* and fish species of the Chinese lowland complex (*Abbottina rivularis*, *Pseudorasbora parva*, etc) were recorded. Note that *Schizothorax eurystomus* is the only representative of the ichthyofauna of the Akhangaran River basin, which inhabits the river from the mountainous to the flat area, and is also found in the Tuyabuguz reservoir, located in the upper part of the flat area of the river.

Turning to the issue of the formation of the ichthyofauna of reservoirs, it should be noted that any constructed reservoir is a reservoir of a new type, which differs from the river in its hydrobiological and hydrochemical regimes, usually with sharp fluctuations in the level, a kind of fauna and flora. In these reservoirs, organisms appear that are adapted to life in stagnant or slowly flowing waters. The complex of fish species in channel reservoirs differs from the ichthyofauna of the river section occupied by the reservoir. In non-channel reservoirs, the living conditions of fish differ from those in the river even



more than in channel reservoirs, therefore, changes in the species composition of fish occur.

The fish fauna of the Akhangaran reservoir consists of 5 native fish species. As for the ichthyofauna of the Tuyabuguz reservoir, earlier - in the 1960s - early 70s, it was represented by 16 species of fish. *Cyprinus carpio* (66.5% in catches), *Silurus glanis*, *Schizothorax eurystomus* occupied the leading position in the fishery [Kasymova, 1967; Kamilov, 1973]. In subsequent years, there was a significant enrichment of the ichthyofauna of the reservoir (up to 23 species) with species of fish of the Far Eastern complex due to their penetration from the ponds of the fish farm, as was the case in other reservoirs of the basin. However, in 1989, the Tuyabuguz reservoir was almost completely drained as a result of the release of water, so in 1990 there was a significant depletion of the ichthyofauna. In the control catches, only low-value and trash fish from the Akhangaran River were recorded: *Opsariichthys bidens*, *Hemiculter leucisculus*, *Rhinogobius brunneus*, *Abbottina rivularis*, *Alburnoides taeniatus*, *Carassius gibelio*, *Gambusia holbrooki*, *Gobio lepidola*

CONCLUSIONS

Thus, at present, the modern composition of the ichthyofauna of the Akhangaran River basin consists of 33 fish species, while 4 species (*Gobio cynocephalus*, *Triplophysa dorsalis*, *Ictalurus punctatus*, *Esox lucius*) were recorded by us for the first time. The species composition of the ichthyofauna of the Akhangaran reservoir has been clarified; it consists of 5 aboriginal fish species and 22 fish species of the Tuyabuguz reservoir.

The ichthyofauna of the Tuyabuguz reservoir was initially formed from the funds of the original water system - the Akhangaran River, then due to acclimatizers. To date, a peculiar ichthyofauna has formed in the reservoir, consisting mainly of representatives of the indigenous fauna and acclimatizers. The departure from the Tuyabuguz reservoir of the previously numerous river fish in it - rheophiles: *Schizothorax eurystomus* and *Luciobarbus conocephalus*, in addition to an increase in the degree of eutrophication with organic substances, is largely due to their displacement by fish by limnophils, due to food competition.

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THE UNEXPECTED SETBACK TO BENGALURU - COVID-19 DISASTER MANAGEMENT REVIEW

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ABSTRACT

Introduction: Negative impact of COVID-19 exist in every place of the Indian¹ subcontinent. Chennai, Mumbai and Delhi were affected so badly in Quarter 2 with a huge number of cases; however, Kolkata and Bangalore were doing good with a smaller number of cases. At Bangalore, as on 15 June 2020, the situation was good² and by end of June 2020, the COVID-19 situation of Bangalore started towards the negative side as the number of cases is increasing more. By the last week of October, the number of confirmed cases came down.

Aim: The primary objective of the research paper is to explore the current state of COVID-19 pandemic of Bangalore by comparing the previous months. We attempt to explain how the condition was good till June and how badly it was affected by the huge number of cases (4-5 times) from June end onwards. Further, we predict the confirmed cases and death rates for the forthcoming days for Bangalore.

Technique, Sample and method: For this research work, we have used the data from 15 June 2020 to 26 October 2020 from the government of Karnataka and Bruhat Bengaluru Mahanagara Palike³ (BBMP). To forecast the COVID-19 cumulative confirmed and death cases for Bangalore and Other major cities (for comparison), we have used FORECAST.ETS function in Microsoft Excel. The forecasting is estimated till 31 December 2020.

Results: By 15 Nov 2020, the forecasted cumulative cases would be 368264 in the Bangalore city. By 30 Nov 2020, the forecasted cumulative cases would be 398929. By 15 Dec 2020, the forecasted cumulative cases would be 429594 and by 31 Dec 2020, the forecasted cumulative cases would be 462303. If the situation goes bad due to various reasons, the number of cumulative cases may go up to 634462. The average COVID-19 case growth of Bangalore is 141% (Average from June to Oct 2020).

Conclusion: When Major cities of India were doing bad in terms of COVID-19, Bangalore was doing well for the first few months. From June end onwards, the covid-19 cases increased in Bangalore by 4-5 times which is unexpected. By the end of October, the rate of COVID-19 increase is comparatively less than the previous months. For now, COVID-19 situation may be under control to some extent, however, that does not mean that this scenario will continue. At any point in time, the situation may go back to the worst condition as similar to the second wave of COVID-19 is being encountered by the European countries. Proactive approaches and pandemic management strategies should be in place to manage the worst situation. People and the economy affected badly due to COVID-19 already and it may not be feasible to suffer once again.

KEYWORDS: Bangalore, COVID-19, Coronavirus, Cumulative cases, Deaths.

INTRODUCTION

Bengaluru⁴ (Bangalore) is one of the most developing cities in India. Bangalore is located in Karnataka state and 5th largest city across the country. Bangalore is also known as 'Garden city' of India because of the huge number of trees and wonderful greenery. Pensioners used to consider Bangalore as their Paradise. Bengaluru is also known as the "Silicon Valley of India" for the growth of IT sector in India. Bangalore is the capital of Karnataka and renamed as "Bengaluru" in 2014. Various Indian technological organisations such as ISRO, Infosys, Wipro, and Hindustan aeronautics limited, are headquartered in the city. Bangalore is the

demographically diverse city and it has one of the most highly educated workforces in the world. Multiple educational and research institutions located in Bangalore, such as Indian Institute of Science, Indian Institute of Bangalore, NIAS, TIFR, ISEC, IITB, NID R&D, NLSIU and NIMHANS. Many public sector organisations such as Bharat Electronics, Bharat Heavy Electricals Limited, Bharat Earth Movers Limited and National Aerospace Laboratories (NAL) are located in the city. Bangalore gets rain for 60 days per year over the last ten years (average). Bangalore is known for its excellent climate round the year. The temperature of the Bangalore city varies from 18 C to 38 C and



ranges from 12 C to 25 C in summer and winter respectively. There is a continuous inflow of population right from the year 1901 to 2001. The population of the city was 1,63,000 in 1901 and It was 95,88,910 in 2011. During the 1990s, due to the information technology revolution, the usage of land in Bangalore increase by 123%. Bangalore city become major technology hub after Boston, London and California. Bangalore city is the home for over 650 Indian and multinational companies. Bangalore

is contributing 35% of India's software exports. Peenya was Asia's largest industrial zone located in Bangalore with an area of 1,485 acres, and Peenya Industrial Area has a total of 6000 manufacturing units. It is important to note that the Peenya is currently India's 66th most polluted industrial sector. Apart from Peenya, there are so many industrial layouts such as Whitefield, Bommasandra, Nelamangala, Kumbalagodu, Jigani, Veerasandra, Harohalli, Bidadi and Hoskote.

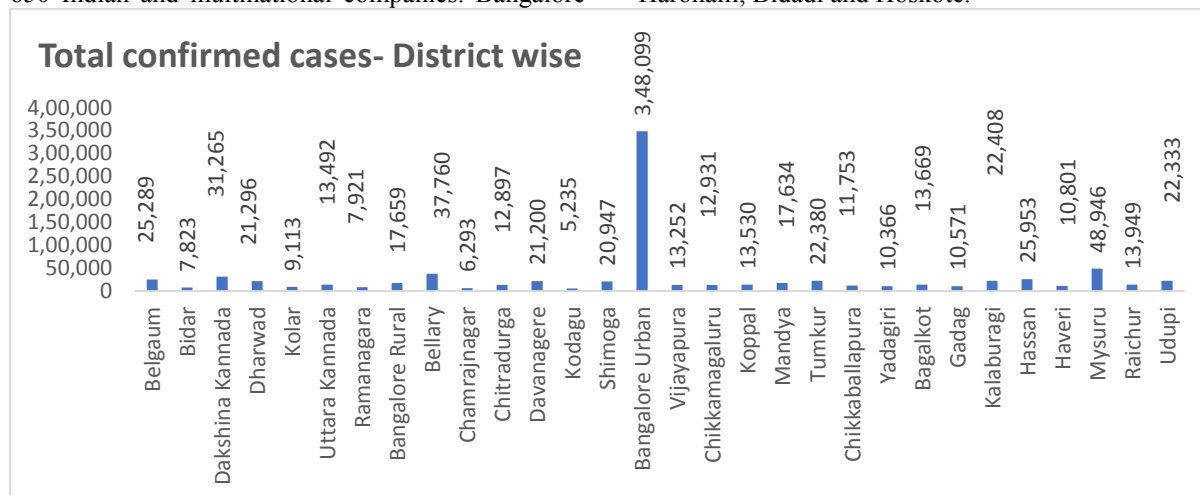


Figure 1. Karnataka confirmed cases – District Wise (As on 8 Nov 2020)¹²

Worldwide, India is in second place next to the USA in terms of highest COVID-19 cases. Soon India⁵ may take the first place globally. Within India, Karnataka is in second place with 8,53,796 cases, as on 12 November 2020. District wise COVI-19 confirmed cases of Karnataka as on 8 November 2020 details given in figure 1. It is obvious that the Bangalore urban is at the top level with 3.48 lakhs confirmed cases. Being a capital of the state, with a huge population, high population density and the high number of travellers to the city, no need to surprise about the higher number of confirmed cases in Bangalore than any other part of Karnataka.

The first case of Novel Corona Virus infection, which has caused a pandemic⁶ resulting in catastrophic health implications and human miseries throughout the globe, was detected in the state on 8 March 2020. It was a case of an international traveller returning to Bengaluru Urban. Since then the state has relied on 5Ts of tracing, testing, tracking, treatment and technology to tackle COVID-19. A robust surveillance system with an elaborate contingency plan is in place for limiting the spread of the disease. As on 30 April 2020, the number of COVID-19 cases in Bangalore was 138. As on 1 June 2020, the number of cases in Bangalore was 386, whereas the number of cases was more in other major cities, Chennai-14799, Mumbai -39686 Delhi-19844 and Kolkata-2125. As on 15 June 2020, among the five major cities considered, Bangalore had 732 confirmed cases compared to Mumbai which was affected severely with 58226 cases, Delhi with 41182

cases, Chennai with 31896 cases and Kolkata was in 4th place with 3672 cases. Being a silicon valley of India and with a huge number of people roaming around, the fewer number cases in Bangalore was appreciated by the media, medical authorities and various government agencies. However, within a month, Bangalore's COVID-19 situation changed drastically. As on 26 Oct 2020, the number of cumulative cases is 327376 which is the evidence for the drastic change in the number of cases.

OBJECTIVES

- To understand how Bangalore was changed from Good to bad situation in terms of COVID-19 cumulative cases.
- To predict the future state of Bangalore regarding COVID-19 situation.

Approach

We have taken June 2020 as a base for this comparative study. The number of COVID-19 cases of every 15 days considered to compare the rate of growth for Major cities such as Bangalore, Chennai, Kolkata, Mumbai and Delhi. Our primary aim is to see how Bangalore was good with a smaller number of cases in June 2020 and how bad it is in October 2020 and what was the percentage of case increase throughout this period. Also, based on the current data (June to Oct 2020), we forecasted the number of confirmed cases and death cases for Bangalore till 31 December 2020.

COVID-19 SITUATION OF BANGALORE

COVID-19 impacted most of the countries globally¹⁰. As on 15 June 2020, Karnataka was in 10th place with the 7213 confirmed cases in India¹¹. Within Karnataka state, Bangalore was in 4th place with 732 cases next to Udupi, Kalaburagi and Yadagiri districts. Mumbai⁷ was one of the severely affected cities with 58226 cases, Delhi⁸ with 41182 cases and Chennai⁹ with 31896 cases. Kolkata was in 4th place with 3672 cases. (figure 2 left side image) Within 15 days (i.e on 30 June 2020), the number of

cases of Bangalore raised to 4555 from 732 (522% increase), whereas the number of cases of Kolkata increased to 5573 from 3672 (35% increase). The number of cases in Chennai increased from 31896 to 55969 which is around 75.4% increase. Similarly, the number of cases in Delhi increased from 41182 to 83077 which is more than 100% increase and the number of cases of Mumbai Increased from 58226 to 75539 which is around 30% increase (figure 2 right side image). During this period, Bangalore has seen a huge number of case increase and Mumbai have seen a lesser rate of increase.

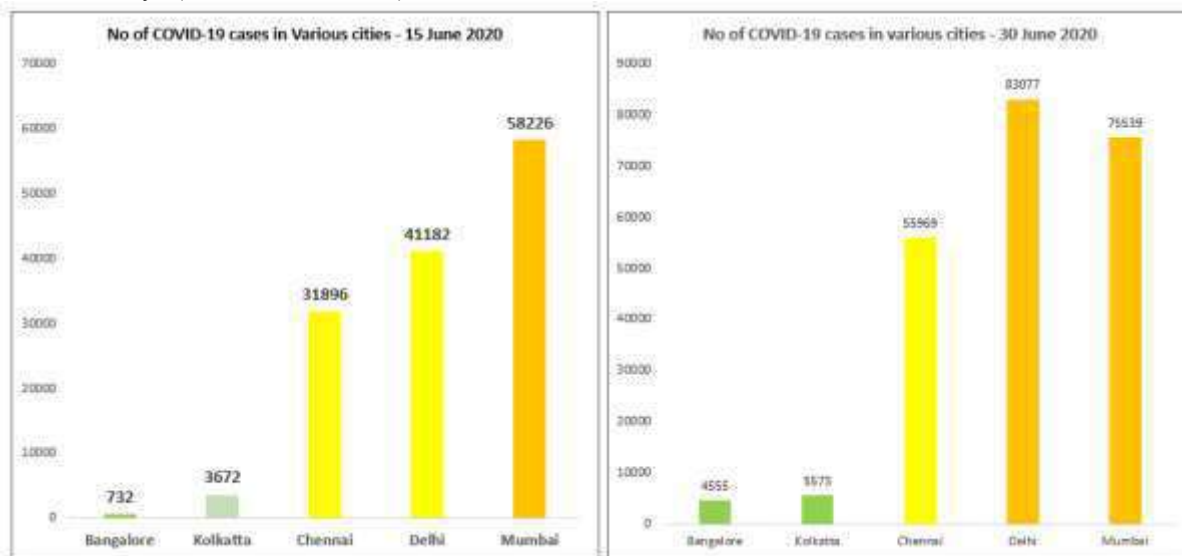


Figure 2. No of COVID-19 cases in Bangalore and other major cities (June 2020)¹²

By end of June 2020, the number of cases of Bangalore was 4555, however, on 15 July 2020, the number of cases is 22994 which is more than 404% Increase. The number of cases of Kolkata was 5573, however, on 15 July 2020, the number of cases is 10550 which is close to 89.3% Increase. By end of June 2020, the number of cumulative cases of Chennai was 55969 and by 15 July 2020, the number of cumulative 79662 which is above 42.3% increase. (figure 2 right side image and figure 3 left side image) Similarly, By end of June 2020, the number

of cumulative cases of Mumbai were 75539 and by 15 July 2020, the number of cumulative 95100 which is around 26% increase. By end of June 2020, the number of cumulative cases of Delhi was 83077 and by 15 July 2020, the number of cumulative 115346 which is around 39% increase. So for the period of 30 June 2020 to 15 July 2020, the increase of COVID-19 cases of all other cities are lesser than 100%, however, the growth rate of Bangalore was 404% which is an unusual pattern.

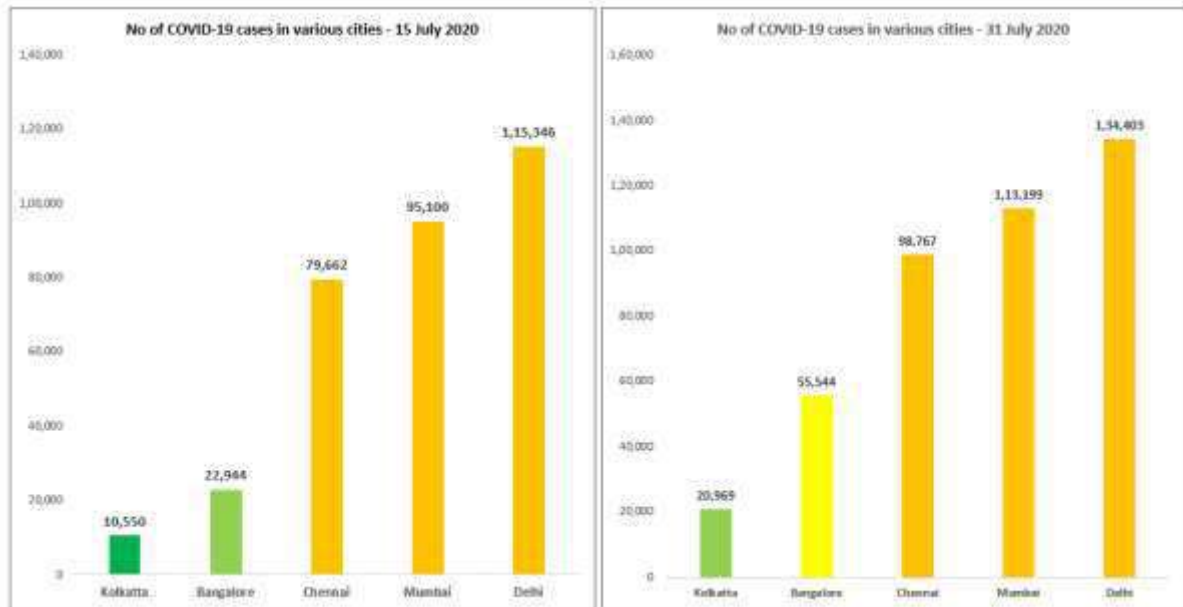


Figure 3. No of COVID-19 cases in Bangalore and other major cities (July 2020)¹²

From 15 to 31 July 2020, there was around 10400 cases increase in Kolkata (around 100% increase). The number of cases increased from 22994 to 55544 in Bangalore (141% increase). There was around 24% increase in Chennai during this period (79662 to 98767). The number of cases increased from 95100 to 113199 in Mumbai which is around 19% increase. In Delhi, there was an increase from 115346 to 134403 which is around 16.5% increase. (figure 3) During 15 to 31 July 2020, Bangalore was the city which was affected by the huge number of confirmed cases. (141% increase)

By end of July to 15 August 2020, The number of cases increased in Kolkata from 20969 to

31085 which is a 48% increase. The number of cases increased in Bangalore from 55544 to 87680 which is around 58% increase. The number of cases increased in Chennai from 98767 to 114260 which is around 12% increase. The number of cases increased in Mumbai from 113199 to 128535 which is around 15.6% increase. The number of cases increased in Delhi from 134403 to 150652 which is around 12% increase. During this period also, Bangalore and Kolkata are the cities affected badly with a greater number of cases. (figure 3 right side image and figure 4 left side image)

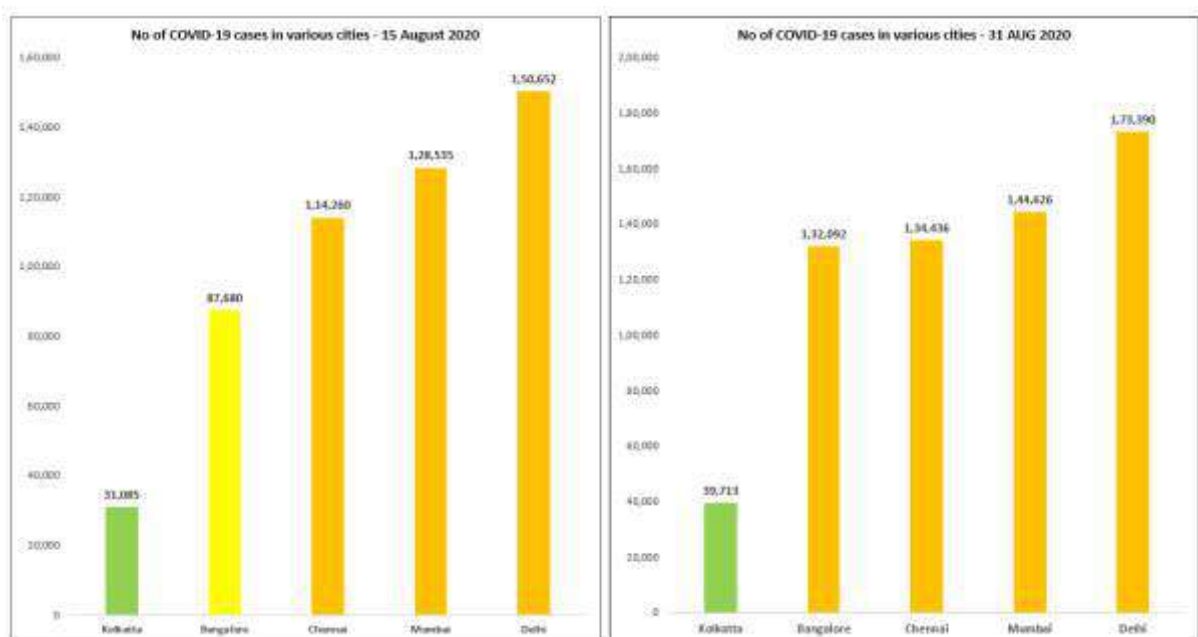


Figure 4. No of COVID-19 cases in Bangalore and other major cities (August 2020)¹²

From 15 to 31 August 2020, The rate of increase in the confirmed cases in Kolkata from 31085 to 39713 which is around 27.7%. The rate of increase in the confirmed cases in Bangalore from 87680 to 132092 which is around 50.6%. The rate of increase in the confirmed cases in Chennai from 114260 to 134436 which is around 17.6%. The rate of increase in the confirmed cases in Mumbai from 128535 to 144626 which is around 12.5%. The rate of increase in the confirmed cases in Delhi from 150652 to 173390 which is lesser than 15% (figure 4). During this period, Bangalore and Kolkata are the cities affected badly with a greater number of cases and Mumbai had a lesser growth rate.

By the end of August 2020 till 15 Sep 2020, The rate of increase in the confirmed cases in

Kolkata from 39713 to 47141 which is around 18.7% increase. The rate of increase in the confirmed cases in Bangalore from 132092 to 176712 which is 33.7%. The rate of increase in the confirmed cases in Chennai from 134436 to 149583 which is around 11.2%. The rate of increase in the confirmed cases in Mumbai from 144626 to 172010 which is around 19%. The rate of increase in the confirmed cases in Delhi from 173390 to 221533 which is around 27.7% (figure 4 right side image and figure 5 left side image). During this period also, Bangalore is the city affected badly with a greater number of cases and Chennai had a lesser growth rate.

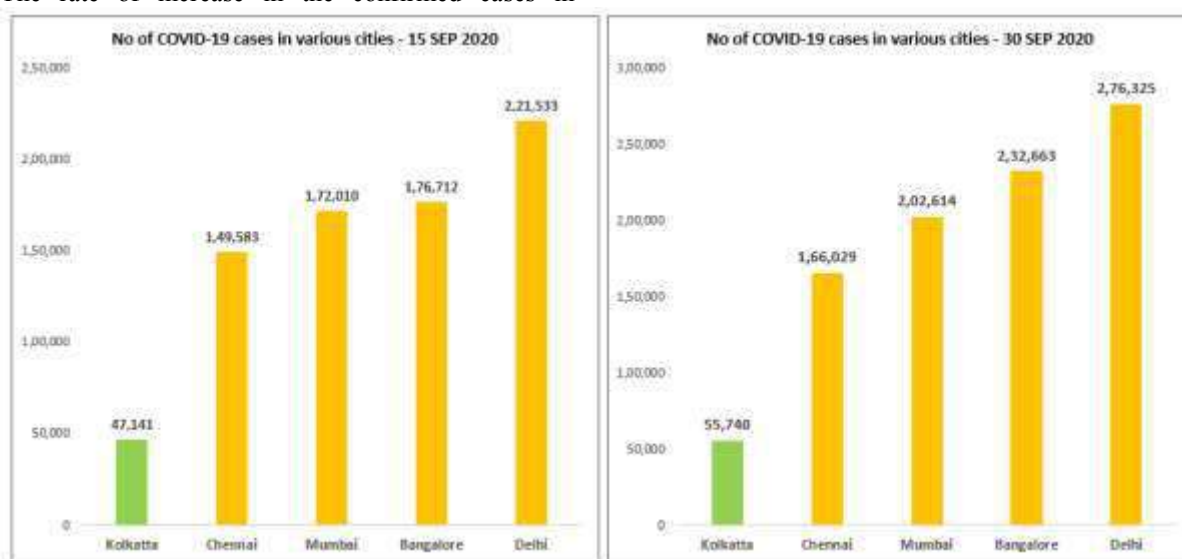


Figure 5. No of COVID-19 cases in Bangalore and other major cities (Sep 2020)¹²

From 15 Sep to 30 Sep 2020, The rate of increase in the confirmed cases in Kolkata from 47141 to 55740 which is around 18.2%. The rate of increase in the confirmed cases in Bangalore from 176712 to 232663 which is around 31.6%. The number of cases increased in Chennai from 149583 to 166029 which is around 11%. The number of cases increased in Mumbai from 172010 to 202614 which is around 17.8%. The number of cases increased in Delhi from 221533 to 276325 which is around 24.7% (figure 5). Still, during this period, Bangalore is the city affected badly with a greater number of cases. i.e with 31.6% case increase and Chennai maintained with 11% case increase.

From 30 Sep to 15 Oct 2020, The number of cases increased in Kolkata from 55740 to 66682 which is around 19.6%. The number of cases increased in Bangalore from 232663 to 297193 which is above 27.7%. The number of cases increased in Chennai from 166029 to 185573 which is around 7%. The number of cases increased in Mumbai from 202614 to 234602 which is around 15.7%. The number of cases increased in Delhi from 276325 to 317548 which is around 15% (figure 5 right side image and figure 6 left side image). Yet during this period, Bangalore is the city affected badly with a greater number of cases. i.e with 27.7% case increase and Chennai have seen a lesser rate of cases. i.e 7%.

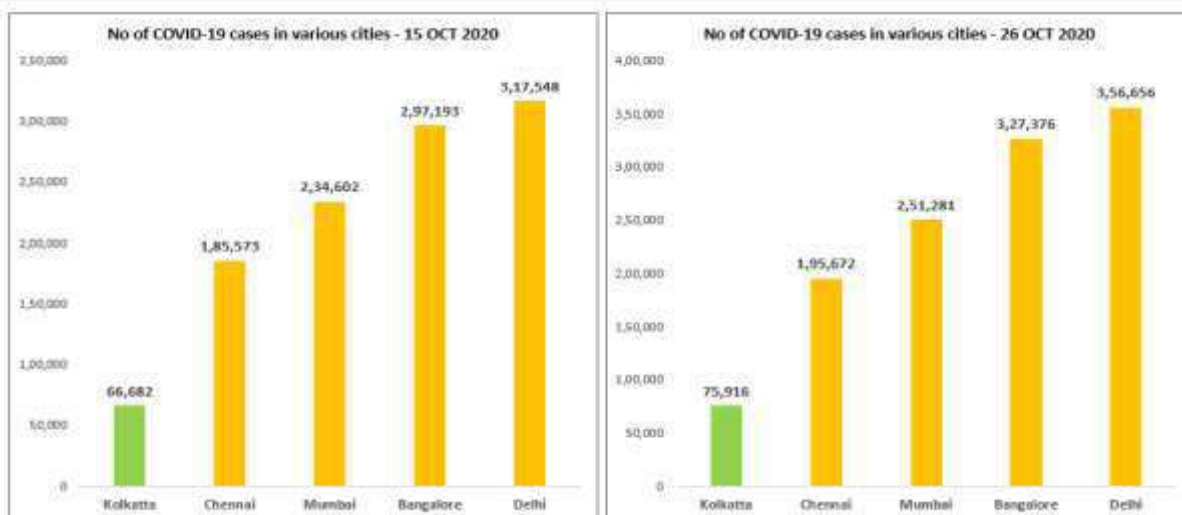


Figure 6. No of COVID-19 cases in Bangalore and other major cities (Oct 2020)¹²

From 16 Oct to 26 Oct 2020, The number of cases increased in Kolkata from 66682 to 75916 which is around 13.8%. The number of cases increased in Bangalore from 297193 to 327376 which is about 10.1%. The number of cases increased in Chennai from 185573 to 195672 which is around 5.4%. The number of cases increased in Mumbai from 234602 to 251281 which is around 7%. The number of cases increased in Delhi from 317548 to 356656 which is around 12.3% (figure 6). During this period, Kolkata is the city affected badly with a greater number of cases. i.e with 13.8% case increase, Delhi is in second place with 12.3% and this is the duration where Bangalore was able to maintain with the lower growth rate. i.e 10.1%.

COMPARISON OF COVID-19 TREND OF BANGALORE WITH OTHER MAJOR CITIES

Figure 7 shows the trend¹² of Bangalore, Kolkata, Chennai, Mumbai and Delhi from June to October 2020. From June onwards, most of the times, Delhi is at the top level (Yellow) and Kolkata is at a lower level (Orange). If we look at the graph of Bangalore, it was at the bottom in the 1st half of June 2020 till end of July 2020 and from August 2020 onwards, the number of cases has grown exponentially, and now, it is almost near to Delhi. Whereas the graph is in the linear pattern for Chennai and Mumbai.

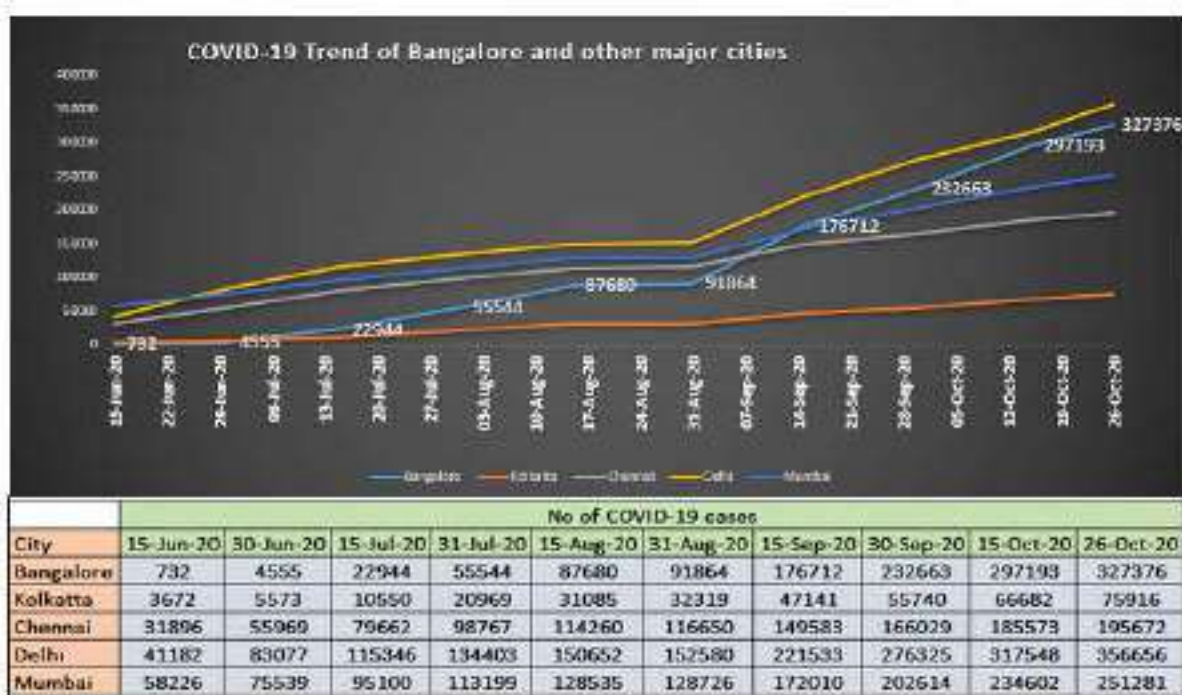
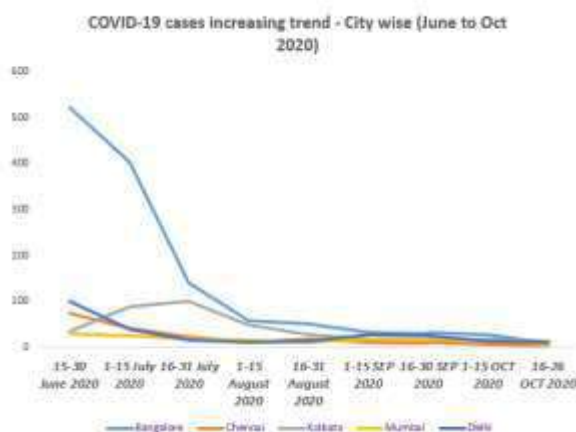


Figure 7. COVID-19 trend of Bangalore and other major cities (June to Oct 2020)¹²

Figure 8 left side image shows the rate of COVID-19 case growth of Bangalore, Kolkata, Chennai, Mumbai and Delhi. Right side image shows the % of case growth in all those cities compared with the previous 15 days duration. The city which has the highest rate of growth is indicated in orange colour and the city which has the lowest case growth

is indicated in green colour. Example: During 16-31 August 2020, Bangalore's rate of growth was 50.6 % compared with the duration of 1-5 August 2020, it is the highest among all five cities which is indicated in orange colour and Similarly, Mumbai had 12.5% rate of growth which is the lowest among all five cities which is indicated in green colour.

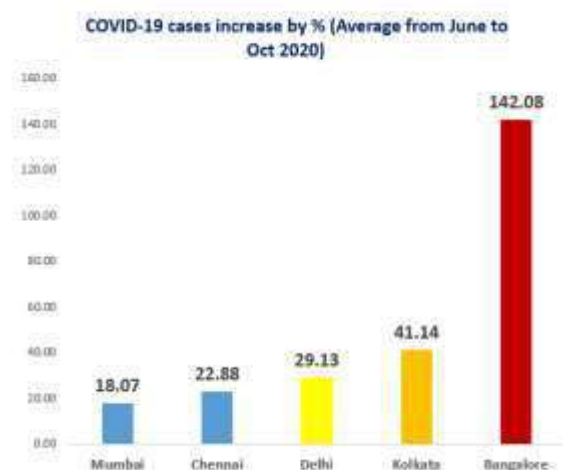


	COVID-19 cases increase by %				
Period	Bangalore	Chennai	Kolkata	Mumbai	Delhi
15-30 June 2020	522	75.4	35	30	100
1-15 July 2020	404	42.3	89.3	26	39
16-31 July 2020	141	24	100	19	16.5
1-15 August 2020	58	12	48	15.6	12
16-31 August 2020	50.6	17.6	27.7	12.5	15
1-15 SEP 2020	33.7	11.2	18.7	19	27.7
16-30 SEP 2020	31.6	11	18.2	17.8	24.7
1-15 OCT 2020	27.7	7	19.6	15.7	15
16-26 OCT 2020	10.1	5.4	13.8	7	12.3
AVERAGE CASE INCREASE	142.08	22.88	41.14	18.07	29.13

Figure 8. COVID-19 rate of cases increases in Bangalore and other major cities (June to Oct 2020)¹²

During 15-30 June, Bangalore has seen the highest growth rate which is 522% and it was 10% during 16-26 Oct 2020 which is the lowest. Severity came down in 1st half of July by around 20% so it

was around 404% growth rate and it was 141% in the second half of July 2020. From August till 1st half of Oct 2020, the growth rate varied between 30-50% approximately.



City	COVID-19 cases increase by % (Average from June to Oct 2020)
Bangalore	142.08
Chennai	22.88
Kolkata	41.14
Mumbai	18.07
Delhi	29.13

Figure 9. COVID-19 average rate of cases increases in Bangalore and other major cities (Average June to Oct 2020)¹²

From June to Oct 2020, on average COVID-19 growth rate of Bangalore is 142.08% which is the highest among all 5 cities. Mumbai is at 18.07% which is the lowest, however, the number of cases grown so much in Mumbai before June and it is under control after June. Kolkata has seen around 41% case growth and Delhi has grown with 29.14%. (figure 9)

COVID-19 TREND OF BANGALORE (Lockdown and Unlocking)

It was a surprising pattern that was maintained at Bangalore from the beginning till lockdown 5.0. Lockdown was there across the country, however, many of the major cities affected badly with huge number of cases but Bangalore was one of the cities which was under control with a smaller number of COVID-19 cases. Until lockdown 5.0, Bangalore had



358 cumulative cases. When the first unlock announced it was 4555 cumulative cases in the garden city. So this indicates that during lockdown 5.0, the number of cases started increasing with multiple folds due to the reason that the unlock 5.0 was announced with lot of relaxations.

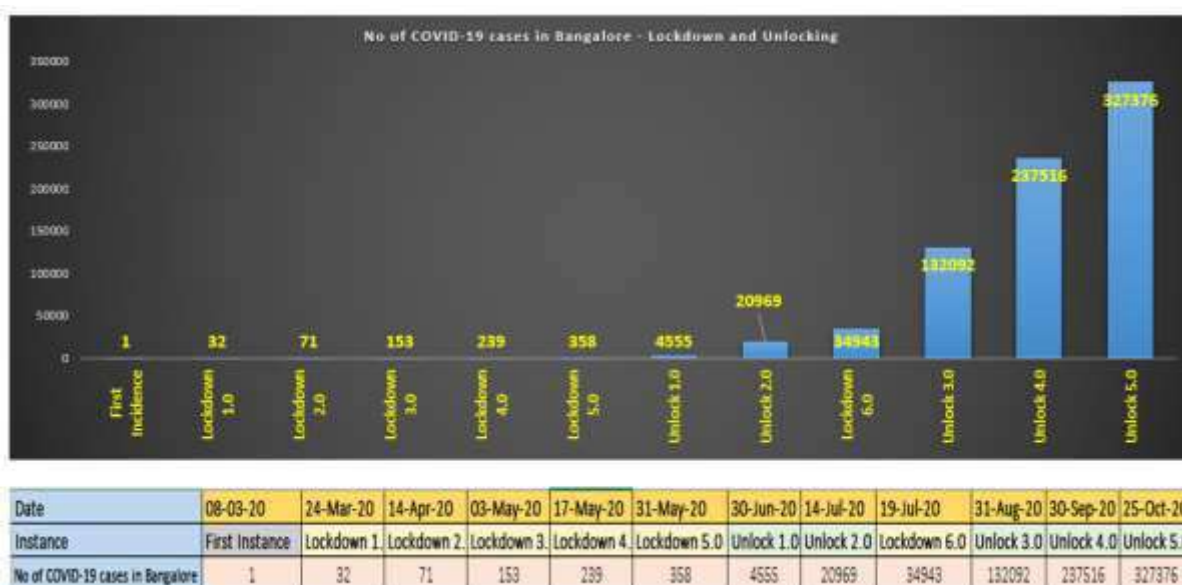


Figure 10. COVID-19 cases in Bangalore during and after lockdown¹²

There were 20969 cases when unlocking 2.0 announced which is 4 times higher than the previous unlocking. Since the COVID-19 cases are high, the BBMP announced lockdown 6.0 for a week and there were 34943 cases at that time. At the time of unlocking 3.0, the number of cumulative cases was

132092 which is around 4 times and as on 25 Oct 2020, the number of cumulative cases is 327376 in the city. Positive rate from sampling test was pretty low in May or before that (1.17%). It was increased in June 2020 to 7% and huge spike in July 2020. i.e 24.15%. (figure 11).

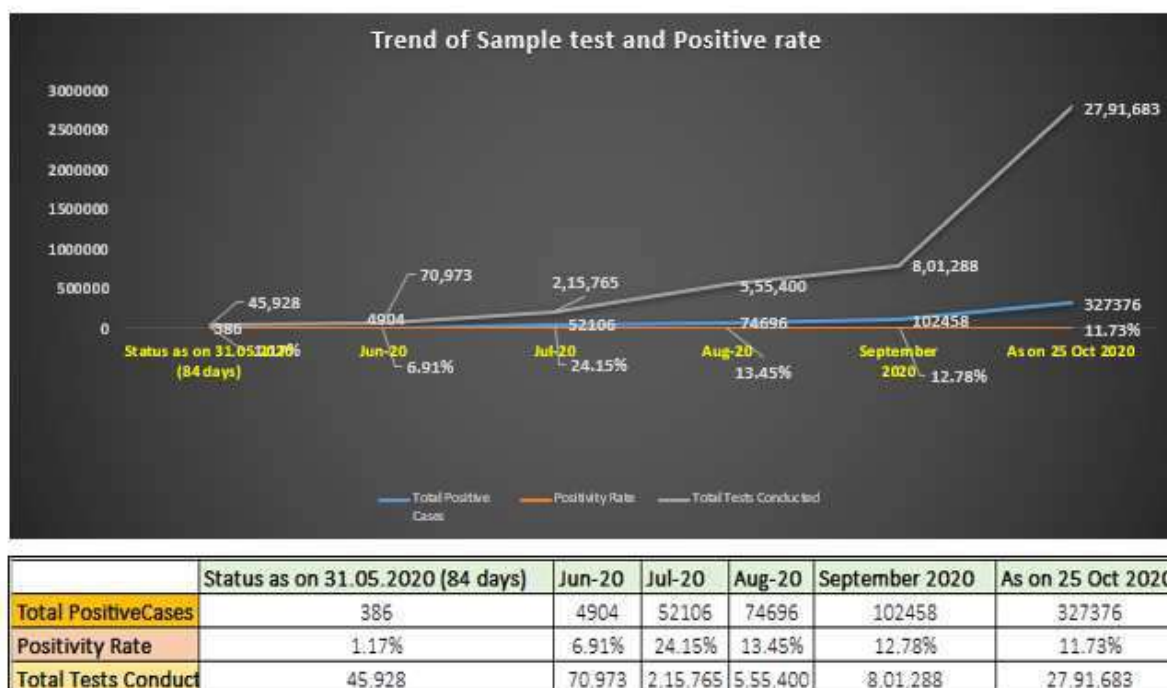


Figure 11. COVID-19 sample test and positive rate trend in Bangalore¹²



From August onwards, the positive rate from the sample tested has come down, i.e 13.45% in August, 12.78% in September and 11.73% in October 2020. (figure 11). From the trend, we can assume that it will further come down in November 2020. Figure 12 shows the trend of cumulative confirmed cases

and death cases from the beginning till 26 October 2020. From the pattern, we can clearly understand that the case growth and death counts are in exponential pattern with constant increase.

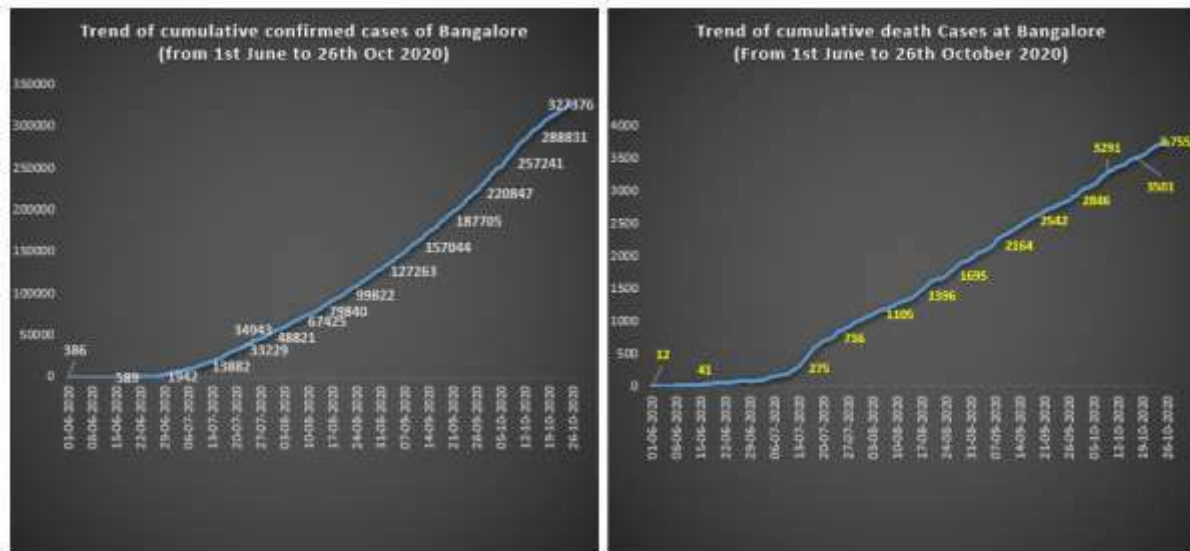


Figure 12. COVID-19 confirmed and death cases trend at Bangalore¹²

Forecasting analysis

In this paper, we have used forecasting¹³ analysis technique in Microsoft excel for calculating the future state. This forecast is completely based on past data. For the confirmed cases forecast, we have given the actual forecasting and also, upper bound are indicated. Other than the recent data, there are

various influential factors (lockdown tactics, speed of spread, advisories and regulations from the central and state governments, people's awareness and attitude in following practices, etc.) that can completely change the scenario which may lead to a drastic change in the forecasted data.

Cumulative cases forecasting

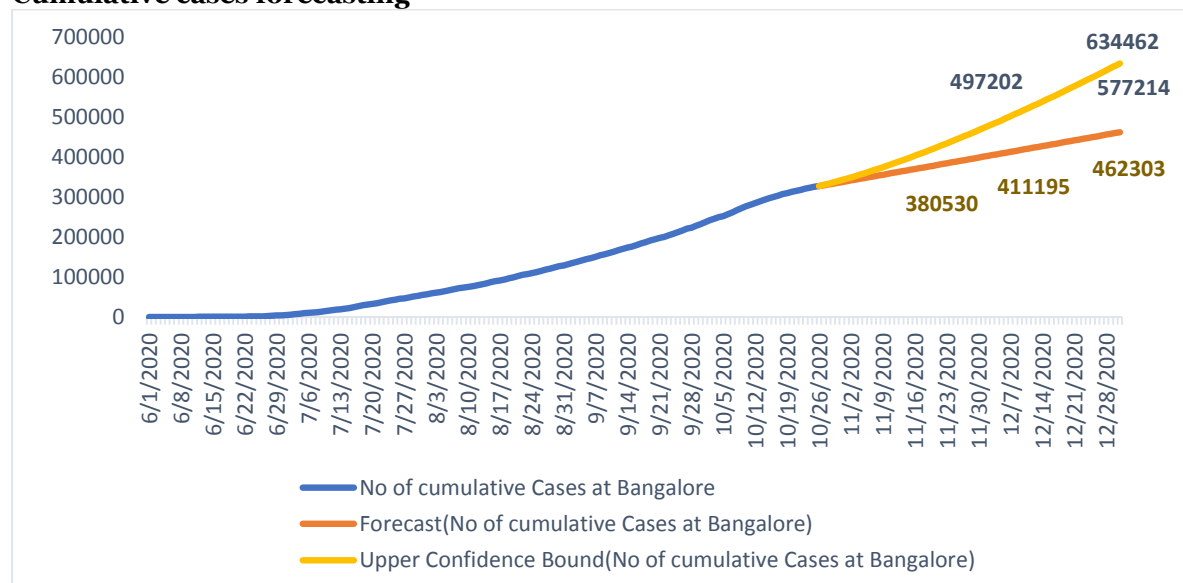


Figure 13. COVID-19 forecasted confirmed cases trend at Bangalore



Death cases forecasting

The number of cumulative death cases as on 26 Oct 2020 is 3755. The death cases trend from 1 June to 26 Oct 2020 indicated in the blue colour

(figure). Based on the forecasting estimation, by 31 December 2020, the number of death cases of Bangalore may go up to 5645 (orange colour).

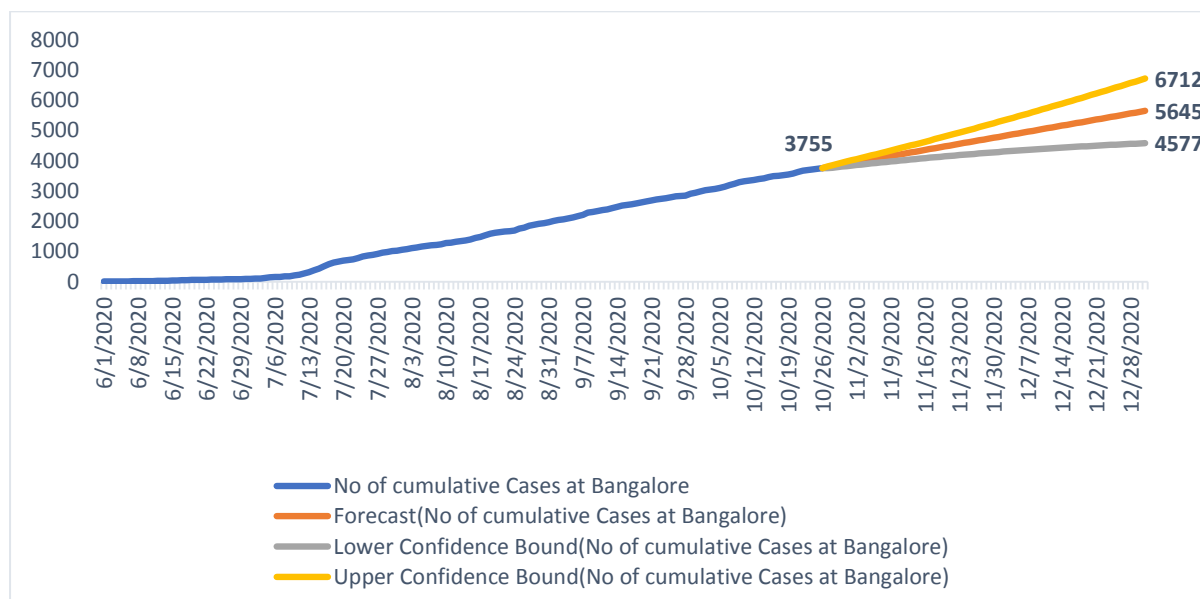


Figure 14. COVID-19 forecasted death cases trend at Bangalore

Due to various reasons, if the scenario goes bad then the number of deaths may go up to 6712 (yellow colour). It can be controlled at 4577 if the situation is under control due to various conditions and efforts (grey colour).

DISCUSSION AND INTERPRETATION

Closing schools in advance, shutting the big markets early in the first lockdown, permitting IT companies to allow their employees to work from home, strict lockdown process was discussed as reasons¹⁴ for better control in Bangalore from March to May 2020. 358 cases for three months duration (March to May 2020) till the lockdown 5.0 which is

an excellent control. As on 15 June 2020, there were 732 confirmed cases and 4555 cases on 30 June 2020. As on 15 July and 30 July, there were 22,944 and 55,544 cases respectively. As on 15 and 30 August, there were 87,680 and 91,864 cumulative cases respectively. As on 15 and 30 September there were 1,76,712 and 2,32,663 respectively. by 15 Oct 2020, the number of cumulative cases was 2,97,193 and it was 3,27,376 on 26 Sep 2020. The average case growth rate from 15 June to 26 Oct 2020 is 142%. The highest increase observed in June and July 2020, it was 522% and 404% respectively. Based on the forecasting, the number of cumulative cases may go up to 4623030 by 31 Dec 2020 and the number of death cases may up to 5645 in Bangalore.

City	No of cases on 26 Oct 2020(Current)	No of cases on 31 Dec 2020(Forecasted)
Bangalore	327376	462303
Kolkata	75916	112396
Chennai	195672	278909
Mumbai	251281	346724
Delhi	356656	504035

Table 1. Current and future cases of Bangalore.

From the trend analysis, we can understand that the unlocking played a vital role in increasing more cases in the garden city. Until lockdown 4.0, the number of cases was 358. As on 30 June 2020, until unlock 1.0, the number of cases increased to 4555. It was increased by 4 times (20569 confirmed

cases on 14 July 2020) when the unlock 2.0 announced. Due to sudden surge, the lockdown 6.0 announced in the city on 19 July 2020 and there were 34943 cases on that particular day. Unexpectedly, the number of cases increased by 4 times on 31 August 2020, i.e 132092 when the unlock 3.0 announced. By



30 Sep 2020 (unlock 4.0), the number of confirmed cases were 237516 where we have observed 1.05 lakhs cases addition from 31 August to 30 Sep 2020. There were 327376 cases on 25 October 2020, with an increase of around 90k cases. The overall case growth from 1 June to 26 Oct 2020 (358 to 327376) is 999%.

Some of the possible reasons¹⁵ for more COVID-19 cases are: Contact tracing was not that effective. Lack of preparedness and forecasting by the authorities. Lockdown was not the only option to control the spread. People have not followed proper social distancing and wearing masks. Backlog data could not reveal the actual situation in time. Also, testing backlog and late result lead to more COVID-19 spread. It is also important to note that Karnataka opened the borders early for other states people to enter compared to other states, this could be one of the major causes for more cases. By end of October, the growth rate of confirmed cases and the rate of death has come down compared to previous months. It may or may not continue in the same pattern in the forthcoming months. Being a silicon valley with more national and international travellers, higher chance of getting more positive cases at any point in time in the coming days.

CONCLUSION

As on 12 November 2020, there are 51848261 confirmed cases, 1280868 deaths across the world. There are 220 Countries¹⁶, areas or territories affected by COVID-19 cases. The condition and situation of COVID-19 are temporal, and it can be changed at any point in time. When Italy¹⁷ was doing bad, India and a few other nations were doing well. Now, when India is in bad condition and Italy is in good condition in terms of COVID-19 cases. However, it does not mean that Italy will be in good condition forever and the situation may change anytime unexpectedly with the more cases as the second wave is already started in most of the European nations. COVID-19 created a negative impact on the human community, educational sector¹⁸, financial institutions¹⁹ and however, there is also the positive impact on environment²⁰. Pandemic management is important for any nation, state governments and major cities like Mumbai, Chennai, Delhi, Kolkata and Bangalore. Controlling the spread in rural areas may be easy but in urban areas, it is complicated because of the huge population, population density and many other reasons. Before June 2020, Bangalore was doing good with a smaller number of cases and after June till Oct 2020, the condition of Bangalore was bad with huge number of cases. Now again the severity is coming down, however, by considering the winter season, more upcoming festivals, any time the number of cases may go high in the city. The second wave of COVID-19 is started in the European counties already. The government of Karnataka and administrators of

BBMP should learn the lessons from the World Health Organization, Other countries and states on how to mitigate the situation if again the situation goes bad. Conventional approach and following traditional organizational hierarchy would not help to deal with the pandemic. It is important to have experienced and knowledgeable disaster management experts who can analyse the situation proactively and plan accordingly.

Conflict of interest – None

Financial support – None

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PRESENT OF TRADITIONAL TALES LIVING FORMS

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ABSTRACT

The article provides an extensive analysis of the current living forms of traditional fairy tales. The question of the survival of traditional fairy tales has not been studied at all in our folklore. Besides, it is inevitable that this issue will be the focus of our fairy-tale studies with all its contradictions and complexity. It identifies a number of components that make up the process of living the fairy tale.

KEY WORDS: *traditional fairy tales, fiction, fairy tale genre, literary tales, figurative tales.*

INTRODUCTION

A genre that reflects fairy-tale reality in its own fiction in the pattern of real reality, through the activities of individual heroes in a specific space and time. It embodies the people's desire for a bright future, a free and prosperous life. Knowing that the events, heroes, countries and times depicted in the fairy tale are pure fiction, we rush to listen to it, to get spiritual strength, emotional pleasure from it. What is the reason for this? We believe that the reason for our interest in fairy tales is that our ancestors embraced our centuries-old dreams in the form of imaginary fictional events depicted in it. In the distant past and in the present, when people are tired of the worries of real life, when the injustices of the cruel world tear their hearts apart, when the pains of unrequited love make bitter tears fall from their eyes, when they sink into the ocean of despair. It turns out that the power of the noble ideas in it makes fairy tales a respected genre all the time and everywhere. It is only with this feature that fairy tales have always been valued.

METHODS

It is well known that the fairy tale genre, with its formal possibilities, image system, amazing fiction, traditional epic space and time coverage, stable formulaic artistic language, cannot reflect the worldview, spiritual world, dreams and aspirations of modern people in all their complexity and versatility.

Because, the problems of modern life and human relations do not fit into the poetics of fairy tales. So, when thinking about the current state of traditional fairy tales, it would be correct to speak with a clear distinction between the two issues. These are a) re-creation of fairy tales; b) issues of the survival of traditional fairy tales. There is no doubt that the genre of fairy tales has now ceased to fully reflect the new reality. Because, on the one hand, the audience's aesthetic perception of reality has changed. Modern people are not satisfied with fairy-tale fiction, mythological images and interpretations. On the other hand, the artistic form of the fairy tale, the poetic criteria, has now become an undeniable aesthetic law that lags behind the requirements of artistic creation. In this sense, the fairy tale has become the property of only children and adolescents.

RESULTS AND DISCUSSIONS

The fascinating fantasy in fairy tales, the supernatural magical image has become a rare artistic phenomenon even today, undoubtedly having a significant impact on the strengthening of children's imagination, enriching their spiritual world. The conclusion to be drawn from the above is that now the problem of creating fairy tales has solved itself. The creation of a fairy tale that fully reflects the new reality cannot convince anyone. But traditional tales which are equally pleasing to all, must be preserved



in the memory of mankind as a spiritual and moral value. As such, it is natural that the question of the living forms of traditional fairy tales emerges from the agenda as an aesthetic necessity today. The question of the survival of traditional fairy tales has not been studied at all in our folklore. So, it is inevitable that this issue, with all its contradictions and complexity, will be the focus of our fairy tales. If we say that the living existence of the fairy tale genre is a holistic process, we must also have a certain idea about the components that make up this process, the components that move them. In our opinion, the personality of the narrator plays an important role in the living life of the fairy tale. He creates fairy-tale material with his talent, amazing memory, narrates it with a unique skill. It is not enough to say that it speaks for itself. Because a true storyteller's performance is rich in rhetoric, behavior, facial expressions, gestures, and intonation, such a performance is very different from just telling a story. In addition, the skillful storyteller ensures the continuity of the performance with fiction without violating the artistic-semantic canons of the fairy-tale genre, thereby completely tying the listener's attention to the fairy-tale events. In this sense, there are very few talented storytellers left today. The second component of a fairy tale live performance is the audience. The integral connection between the narrator and the listener is an important factor in ensuring the survival of the genre. While the listener plays a defining role in the full expression of the storyteller's skill, the storyteller's ability to lead in satisfying the listener's interests and needs takes the lead. In short, these two components are in a dialectical relationship with each other. While the needs of the listener inspire the performer, the skill of the narrator brings joy to the listeners, giving them spiritual pleasure. By the twentieth century, the scientific worldview of the listener of fairy tales had grown, and his consciousness had grown even more. Now he began to strive to understand the natural, social causes of any fantasy and fiction, to accept the essence of any event and phenomenon through social, psychological determinism. As a result, scientific acceptance began to take the lead in the listener's perception, replacing the imaginary perception of the fairy-tale world. This extinguished the aesthetic need for the fairy tale genre.

The third component that makes up the living life process of a fairy tale is the direct story material. This component consists of a conditional artistic reality that has the power to captivate both the performer and the listener. But the reality in which both components lived did not provide the appropriate material for the tale. The rapid development of science and technology, the drastic change in the worldview of listeners, the introduction of radio, television, cinema and fiction began to hinder not only the creation of fairy tales based on

fiction and science fiction, but also its acceptance. As a result, the creation and performance of the fairy tale genre almost came to a standstill. The fairy tale became the property of children and teenagers. Under such conditions, the lifestyles of fairy tales also changed. Because, it is natural that the people will not allow the complete disappearance of this great spiritual and cultural value created by their genius. It was from this demand that the discovery of the various forms that sustained the genre of fairy tales ensured its survival. They are, in our view, the following. 1. It is known that folk tales have been written for many years by folklorists, amateurs and intellectuals, university students, writers and poets. The text of the recorded fairy tales is mainly stored in the folklore archive of the Institute of Uzbek Language, Literature and Folklore of the Academy of Sciences of the Republic of Uzbekistan, as well as in the literature departments of philological faculties of higher educational institutions. This charitable movement was revived in the 20s and 30s of the last century due to folklore and ethnographic expeditions to various regions. As a result, a great legacy of famous storytellers such as Husanboy Rasulov, Nurali Nurmat ugli, Haydar Boychaev, Boynazar Beknazarov, Abdugafir Shukurov, Rahmatilla Yusuf ugli Jabbor Chorikulov has been accumulated. In this work Gaziolim Yunusov, H.Zarif, M.Afzalov, J.Kobulniyozov, O.Sobirov, Yu.Sultonov, K.Imamov, Z.Husainova, T.Mirzaev, B.Sarimsakov, A.Musokulov, Sh.Turdimov. The services of such scientists as Juraev, M. Murodov, H. Rasul, H. Razzakov, T. Gazibaev were great. The significance of this work, which now seems simple to us, in the history of our culture is enormous. Because, first of all, the fairy-tale heritage of an entire nation, which is disappearing without a trace only due to the collection of folklore, has been recorded and preserved in the folklore archive and other funds, as well as in personal archives. Second, most of the recorded tales were published in separate editions, especially in large numbers under the series "Uzbek folk art". These publications have made a great contribution to acquainting our people with the masterpieces of our fairy-tale heritage, to educating the younger generation on the basis of high ideals. Even in the current situation, when reading has slowed down, the interest in folk art, especially folk tales is still high. This fact shows that at a time when the masses of the people are literate, the publication of beautiful ideological and artistic samples of our fairy tale heritage in the form of specific collections, their widespread dissemination is the most effective, most popular means of modern life of the fairy tale genre. It is well known that the practice of publishing fairy tales in the form of collections of fairy tales written in the history of Western European, Russian, Ukrainian and Belarusian cultures, which ended before us, has already paid off. The three-volume



“Russian Folk Tales” published by the famous ethnographer Afanasev is exemplary in this respect. However, it should be noted that in the publication of fairy tales, there are cases of artificial interference with the text, editorial corrections, listening to the fairy tale and then writing it down on the basis of literary language norms, which spoils the originality of folk tales. In addition, instead of searching for unpublished samples of folk tales and publishing them, there are cases of selection of fairy tales from previously published collections, their processing and publication, which is not only falsification of folk art history, its past and worldview not something. Of course, today the work of publishing fairy tale collections has slowed down considerably. Because, finding sponsors for publications, the fact that the published product reaches the reader at a high price, has a negative impact on the development of the publication of fairy tales. Therefore, only professionals who are well acquainted with the secrets of the genre, its delicacy, have the right to deal with the publication of fairy tales. Only in this way can the publication of fairy tales be fully convinced that the genre lives in the same form.

2. Traditional folk tales, with their semantic weight, educational and pedagogical significance, enlightenment significance, always arouse great interest in people's lives. This is why people approach this genre with different attitudes in their daily lives. One such form of appeal is the broadcast of “Okshom ertaklari” on the radio. On TV, the program “Good night, little ones” is regularly broadcast. In both programs, small didactic fairy tales are shown or films based on fairy tale plots are shown. Films such as “Zumrad and Kimmat” and “Egri with tugri” are among them. This thing, on the one hand, plays an important role in the upbringing of children, on the other hand, allows the fairy tale genre to live actively in life, to keep it from being forgotten. This means that the existing examples of fairy tales, which have ceased to be re-created, serve as an inexhaustible source of information in the work of educating young people in a high spiritual and moral spirit through the opportunities of the media, such as radio and television. Raising this process to the level of modern requirements depends on the joint work of folklorists, educators and media professionals.

3. The creation and public display of feature films, cartoons based on the plot of folk tales is also one of the forms of life of traditional fairy tales. Feature films such as “Tahir and Zuhra”, shot in the 30s and 40s of the last century, and later “Alpomish” were met with great interest by the public. Frankly, folk tales and epics are an inexhaustible treasure for cinematography. But filmmakers are not making good use of this treasure. If films were made based on the plots of magical fairy tales, not only cinematography but also the living forms of folk tales

would be enriched. Unfortunately, this is not something that is pleasing to the eye. But over the years, it is natural that the demand and need of the people for the spiritual values created by them will increase. So, in the future, one can hope that many films will be created on the basis of beautiful examples that make up amazing examples of folk fantasy. This would have enriched the living forms of traditional folk tales by another means

4. Fairy tales are an invaluable spiritual value with their closeness to the world of children, enriching their imaginary world. Enriching the spiritual world of the younger generation means educating a perfect person and being responsible for the future. Therefore, the demonstration of folk tales among young people in various ways, the enlightenment of children with their noble ideas should be the primary task of theatrical artists, especially actors of young audience theaters. Only fairy tales can absorb into the minds of children the essence of the eternal struggle between good and evil, the inevitability of the victory of good in this struggle to such an extent that they will be remembered for a lifetime. The vitality, simplicity and naturalness of domestic fairy tales are extremely suitable for scenes for children and teenagers. Because in everyday fairy tales there are very few serious philosophical problems that are difficult for young people to understand. This does not cause too much difficulty for the director and the actors in the stage interpretation of household tales. Figurative tales are also close to everyday tales in this respect, and even surpass them in some respects. Because the characters in figurative fairy tales are mainly animals, the closeness of animals and their behavior to the world of children allows these types of fairy tales to be received with great interest in children's theaters. That is why it is natural for children to watch theatrical performances based on the plot of fairy tales, not once, but again and again, to enjoy them, to imitate them.

Demonstration of the above two types of folk tales among children and adolescents, firstly, allows the best examples of fairy tales to live among young people, and secondly, to enrich children's minds with vivid ideas of fairy tales, to support their aspirations for the future, ie youth helps to enrich our fighting optimism in the spirit. At the same time, theatrical performances for children and adolescents help young people to clearly and early discern the commonalities and differences of real life with fairy tales. In any case, staging folk tales for children is a tool that allows some works of the fairy tale genre to live, and this tool should be used effectively.

5. The activities of amateur art groups, mass ethnographic ensembles are also inextricably linked with the genres of folk art. Their repertoire includes stage performances of folk songs, lapar and olan, askiya and fairy tales. Because amateur art groups



often develop by interpreting folklore materials in terms of modern requirements. In the following years, ethnographic ensembles of each region were formed. They include a number of local intellectuals and workers of various professions, as well as people who are well versed in various fields of folk art. An important role should be played in the direction of their activities, the organization of stage performances based on the motives of folk legends and myths, fairy tales and anecdotes, along with various genres of folk art. Because the main purpose of folklore ethnographic ensembles should also be to demonstrate the power of folk creative genius. Folk art, on the other hand, covers not only the present, but also the past and the future. The implementation of the above depends on the efforts of the leaders of folklore and ethnographic ensembles, methodologists. First of all, they need to know and feel the high ideological and artistic value of folk tales, their invaluable spiritual value. Realizing the immense role of fairy tale material in enriching the worldview of young people, developing their creative imagination, cultivating their attitude to life and people, firstly, ensures the current activity of the genre, and secondly, the development of amateur art groups, folklore and ethnographic ensembles.

6. Folk tales attract not only the noble ideas, but also the representatives of the written literature with their amazing fiction, charming form and astonishing fiction. The formulaic image of fairy tales, the unique nature of space and time, the constant resolution of conflict in favor of good, led to the creation of works of art that help to educate the younger generation in the spirit of diligence, patriotism and humanity. Such works are called literary tales. Literary fairy tales are didactic works created by individual artists in the form of folk tales, focused on current issues of the time, often on the education of young people. More precisely, a literary fairy tale is a work created by a poet or a writer on the basis of the plot and motives of traditional folk tales, their formal properties. There are many commonalities and differences between literary folk tales and traditional folk tales created orally. What they have in common is that literary tales also contain a formulaic narrative typical of traditional tales, as well as fiction, rhetoric, and fiction. Literary tales also begin with initial formulas such as 'as long as there aren't', changes in space and time are also described with exaggerated medial formulas as in traditional tales, and each work always ends with a successful solution. In literary fairy tales, no matter how much the creator appeals to the stable formulas inherent in traditional fairy tales, the content of the events in each fairy tale is dominated by individual uniqueness in their artistic interpretation. The tradition of creating literary tales is quite ancient, and their roots go back to the literature of nations that had previously lost the creation of traditional tales. For

example, the Danish writer Hans Christian Andersen (1805-1875), the German philologists, the brothers Jacob (1785-1863) and Wilhelm (1796-1859) Grimm reworked folk tales in a literary way, and they themselves wrote many literary tales in the form of folk tales. creators. The literary tales they created are still loved and read by many. Literary tales created by Hans Christian Andersen differ from traditional tales on the one hand, in contrast to fiction in traditional folk tales, by bringing the protagonists closer to real reality and giving them reality, and on the other hand, giving real life objects and events a fantastic look.

The protagonists of the literary tales created by the Brothers Grimm are the children of peasants, artisans, poor laborers from the common people, who are notable for their diligence, intelligence, meticulousness, vigilance, and humanity. One of the great contributors to the treasury of world literary tales was the French poet and critic Charles Perrault (1623-1703), whose tales "The Red Riding Hood", "The Sleeping Beauty", "The Naughty Girl", and "The Cat in the Boots" turned into fairy tales. He managed to increase the readability of his fairy tales by using the pleasant humor and sarcastic laughter typical of folk art. In the genre of literary fairy tales in Russian literature N.M.Karamzin, V.A.Zhukovsky, A.S.Pushkin, P.P.Ershov, V.F.Odoevsky, S.T.Aksakov, V.I.Dal, K.D. Ushinskiy, D.N.Mamin-Sibiryak, L.N.Tolstoy, A.M.Gorkiy, A.N.Tolstoy, V.V.Bianki, E.L.Shvarts, K.G.Paustovskiy. Many poets and writers, such as Gaidar, M.E. Saltukov-Hedrin, K. Chukovsky, have created rich works. In Uzbek literature, beautiful examples of literary tales have been created by such writers and poets as H. Olimjon, Z. Diyor, S. Jura, Sh. Sadulla, A. Rahmat, P. Mumin, M. Azam, T. Adashbaev. There are many opinions about the genre features of literary fairy tales. In particular, the Russian scholar L. Braude argues that literary fairy tales are a separate genre based on the fiction inherent in traditional folk tales, on the one hand, and on the artistic texture of the individual artist, on the other hand [1, p.234]. S.Ya.Serov emphasizes the connection of literary fairy tales with folklore and written literature. He rightly admits that literary fairy tales are notable for being intended primarily for children and adolescents [2, p.3-116]. For this reason, literary fairy tales are often found in the works of representatives of children's literature. Because fairy-tale fiction, a supernatural fictional plot, is more interesting for children and teenagers than for adults. In addition, most literary tales have instructive content, which is important for the spiritual and moral development of children. Well-known Russian folklorist V.P. Anikin also noted that a literary fairy tale is a literary phenomenon that stands between folklore and written literature, linking them to each other correctly shows that it can be a topic for [3, p.22]. Uzbek literary tales have been specially studied by folklorist S. Alimov.



In his view, literary fairy tale is a genre of written literature. Well-known Russian literary critic V.I. Novikov and Russian folklorist E.V. Pomerantseva also believe that fairy tales written by a poet or writer in close connection with the theme, plot and motives of folk tales should be considered literary tales, they are the property of literature, not folklore correctly note that [5, p.356-357]. We also fully agree with the views of the scholars named above. This is because literary fairy tales derive their narrative style, fiction, formulas, and artistic conditionality from traditional folk tales, but retain the individuality inherent in written literature. It would therefore be more correct to look at and evaluate a literary tale as a phenomenon relating to written literature rather than to folklore. In addition, as the folklorist and literary critic M.A. Azadovsky rightly points out, any writer or poet who touches on a literary fairy tale reworks the material in accordance with his own views, giving it a new content and essence. In this way, a literary fairy tale becomes a pure national work of the artist's own work, if the material on which the fairy tale is based belongs to another nation [7, p.298-304].

This feature applies not only to Russian literary tales, but also to the literary tales of all nations. Written literature developed on the basis of many epic genres of folk oral art. That is why in the written literature there are such colorful works as fairy tales, fairy tales, fairy tales, fairy tales, fairy tales. V.P. Anikin summarizes all of them and calls them fairy-tale literature [3, p.20]. In our opinion, it is impossible to agree with this opinion. Because a fairy tale, whether in the oral tradition or in the written literature, retains its originality to a certain extent. We therefore regard it as an oral and literary tale. But we cannot say that a narrative, myth, parable, story, narrative, and novel in the form of a fairy tale is a mixed form of a fairy tale with other genres. Because these genres have their own criteria. For example, for the novel genre, there is a scope of thinking specific to the novel, a vital-semantic scale, and the formal feature of the fairy tale does not fully cover such a criterion. Now, as for the forms of expression and narration of literary fairy tales, as in the literature of other nations, in Uzbek literature, literary fairy tales are created in the form of prose or poetry. This is not the case with the character of the literary material, but with the poet or prose writer of the creator, his creative inclination and the direction of his talent. Therefore, if a literary tale is created in a poetic form and has a large volume, it is not correct to evaluate it as a fairy-tale, if it is created in a prose form and has a large volume, it is a fairy-tale, a fairy-tale-novel. This in turn causes great theoretical confusion. Regardless of form and size, a literary tale remains a literary tale. It has its own poetics, interpretation of images, plot structure that cannot be confused with other genres. Literary fairy-tale is a

complex aesthetic phenomenon. In order to properly understand the nature of this genre, it is necessary to study in detail the works that fall within its scope, first of all, to determine the sources to which the events of their plot belong. Our observations show that Uzbek literary tales are divided into two groups according to the plot. The first group includes literary tales, the events of which are taken from purely traditional folk tales and creatively reworked by this or that poet or writer. For example, H.Olimjon's works such as "Aygul and Bakhtiyor", "Semurg" belong to such tales. This group also includes such tales as S.Jura's "Blue Carpet" and Sh.Sadulla's "Pea Polvon". Literary tales in the second group include works written by writers and poets for children for didactic purposes based on everyday events. For example, L.N. Tolstoy's "Snow House", A. Tolstoy's "The Golden Key or the Adventures of Buratino", the tales of the eldest son who stole the money of his aunt, written by Hamza, are among them. In folklore, as well as in literary studies, literary tales are classified as fairy tales about magic, household, and animals, just like folk tales. Of course, such a classification of folk tales cannot be deviated from. Because it is natural that every artist who touches the genre of literary fairy tales creates a new life by choosing and imitating the above-mentioned types of fairy tales. For this reason, literary tales often contain works that involve both magical and domestic tales, as well as images of animals. However, in our view, it would be more appropriate to call fairy tales based on animal images "figurative tales" rather than "tales about animals". Because the animals involved in such tales have a figurative character. For example, Adham Rahmat's tale "The Fox's Trick" has such a *sajiya*. The genre of fairy tales as a historical and aesthetic phenomenon in Uzbek folklore disappeared in the XIX century, and no force can revive it. Because, the pictorial, expressive possibilities of the traditional fairy tale genre fail to reflect today's reality in all its aspects and complexity. In this regard, if we look at the genre of literary fairy tales, this genre is the artistic processing of real reality materials or folk tales for the education of young people. The fact that literary tales are created mainly for children and adolescents can also be a proof of our opinion. Moreover, the fiction, rhetoric, magic, formulaic narrative typical of traditional fairy tales cannot convince today's people. The main factor in the extinction of the fairy tale genre was the loss of fairy-tale image and fairy-tale confidence in reality. So trying to revive it is of no use. Literary fairy tales, on the other hand, are valuable as a means of instructing children and adolescents and influencing them spiritually and morally through the use of formal elements typical of traditional fairy tales.



CONCLUSION

In the article, our views on the modern way of life of traditional fairy tales have led us to the following conclusions: 1. Oral traditional fairy tales are priceless masterpieces of folk genius, adorning the treasury of our spirituality by educating people in the spirit of noble ideals for many centuries, encouraging them to live with confidence in a bright future. That is why the people strive to save such a rare heritage, which they have created, from disappearing without a trace over the years, and discover various means and methods of its preservation in our spiritual life. 2. One of such means is the recording of traditional fairy-tale specimens, the publication of its beautiful specimens in large numbers, in separate collections. A lot of work has been done in Uzbek folklore in this regard. Dozens of books published in the series "Uzbek folklore", a separate collection of folk tales, are a vivid proof of this. 3. Reviving folk tales in the form of animated and full-length feature films is the most productive way to preserve our traditional fairytale heritage. Nevertheless, it is necessary to intensify work in this direction. 4. More display of fairy tales on TV screens, popularization with the help of radio dramatizations serve as the most effective forms of preservation of traditional fairy tales. This is more important than ever in educating young people in the spirit of diligence, patriotism, humanity and nobility. 5. It would be expedient to revive the participation of folk tales in the activities of amateur art, folklore ethnographic groups. In the future, the development of measures to develop this area will remain an urgent task for folklorists and fans of folklore. 6. Fairy tale plots serve as a leading source on the stages of young audience theaters, puppet theaters. Therefore, the greater involvement of folk tales in the repertoire of such communities should be an important means of educating young people, as well as a key means of preserving traditional tales. To do this, theater directors and folklorists need to work together. 7. Talented writers and poets create interesting literary tales based on the plots of folk tales, loading them with new creative interpretations, which meet the needs and requirements of today's life. In our opinion, the creation of modern literary tales based on the formal capabilities of traditional folk tales will remain the most effective means of preserving our traditional tales.

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A STUDY ON CONSUMERS SATISFACTION TOWARDS NESTLE CHOCOLATE WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

Chocolate is liked and eaten by all age group of people. It may be in a form of harder, nuttier, crunchy or chewy. It tastes like sweet and bitter. Nestle chocolate is available in small, big and family pack. Many people prefer Nestle chocolate for its sweetness and crunchiness. This study was analysed with 120 respondents. Simple percentage method and likert scale analyses were used for this study.

KEYWORDS: *Chocolate, Nestle, Satisfaction.*

INTRODUCTION

Marketing is a powerful mechanism, which can satisfy the needs and wants of the consumers of the place and time, they desire. The success of a business depends on the strength policies in short, marketing guides the decision and action of every business. NESTLE is one of the world's largest food beverages company with the tagline GOOD FOOD GOOD LIFE''. Considering the truth that the consumer in the king, every organization wants to increase market share and profit. The competitors are also following the same strategy. It involves the psychological processes the consumers go through in recognizing needs, finding way to solve these needs, making purchase decisions, interpret information, make plans and implement those plans by engaging in comparison shopping or actually purchasing a product. Consumer behaviour is one of the stimulating and challenging areas in marketing studies being a human activity focused on the products and services. Understanding the satisfaction level of the consumer is a great challenge.

STATEMENT OF THE PROBLEM

Consumer satisfaction is the independent variable which is highly a complicated. It could be the influence of variable price, brand image, quality of the product, regularity of service. Today's market is open market, consumer taste and preference is always changeable in condition. A study on

consumer satisfaction of nestle chocolate, In order to find out the solution, whether there is some satisfaction among the user of nestle product or not.

SCOPE OF THE STUDY

The study based on the questionnaire method. This study covers the consumer satisfaction towards nestle chocolate with special reference it. This project was done to find out the consumer satisfaction towards nestle chocolate. so the investigator was interest in conducting this study.

OBJECTIVES OF THE STUDY

- To study on consumer satisfaction towards nestle chocolate.
- To analysis of the creation, pricing, accessibility, worth, flavour, publicity and covering of nestle chocolates.
- To study the problems faced by the customers.

RESEARCH METHODOLOGY DATA COLLECTION

Both the primary and secondary data were used

• PRIMARY SOURCE

To cocoa butter in chocolate and confectionary products.



• SECONDARY SOURCE

The secondary data was collected from articles, journals and websites.

SURVEY DESIGN

A convenient sampling technique tool was adopted for data collection.

SAMPLE SIZE

The study was conducted with a sample size of 120 respondents in Coimbatore city.

AREA OF THE STUDY

The study is conducted only Coimbatore city.

TOOLS FOR ANALYSIS

- Simple percentage analysis
- Likert scale analysis

LIMITATIONS OF THE STUDY

- The limitation of my study is restricts itself to Coimbatore city only.
- Information given by respondents is assumed to be true.
- This study is purely based on primary data.

REVIEW OF LITERATURE

A literature is a comprehensive summary of previous research on a topic. The literature review survey scholarly articles, books, and other sources relevant to a particular area of research. The review should enumerate, describe, summarize, objectively evaluate and clarify this previous research.

DR. R. MANIKANDAN and A. RAMKUMAR (2018) ¹“COLLEGE STUDENTS LEVEL OF AWARENESS TOWARDS CADBURY & NESTLE BAR CHOCOLATE” chocolate occupy a pivotal role in the industry. Important events like birthday, wedding day, school and college days or any other celebration is stated with a branded chocolates. In the competitive world each and every day the consumer attitude and thought may change to prefer the product for our comfortable using's. It depends on price, quality, taste, flavour, brand and image, competitive product, attractiveness, and varieties etc. The required primary data collected well structured questionnaire issued to 250 college students of them 29 questionnaires are found to unsuitable hence the final sample size is 221. The present study is focused on college student level of awareness towards Cadbury & Nestle bar chocolate, it is found that window display in the department

¹ Dr. R. Manikandan and A. Ramkumar (2018) “College students level of awareness towards Cadbury & Nestle bar chocolate”.

stores, cinema theaters etc. Can also enhance level of awareness above the popular branded chocolate.

P. ABIRAMI & S. GAYATHRI (2018) ²“A STUDY ON CONSUMER SATISFACTION TOWARDS NESTLE CHOCOLATE” This study covers the consumer satisfaction towards nestle chocolate with special reference it. The researcher had obtained only 100 questionnaires from the respondents. Hence the finding of the study cannot be generalised. The sample size was limited to 150 respondents only. A survey of the people has been conducted to known the liking pattern of the two products Cadbury and nestle. From the study it can be concluded that foreign brands like amul. Which is calculate as with the help likert scale and the value comes out for Cadbury brand is 144.

N. VIJAYANAND, P. THILLAIRAJAN (2018) ³“A STUDY ON CONSUMER'S INCLINATION TOWARDS NESTLE PRODUCTS IN CHENNAI CITY” Nestle customer's inclination chocolates, and fulfilment. Chocolate advertise in India a chocolate advertise is predicate to be approximately rs. 600 crore growing at 6-8% per annum. Nestle is the market leader with 75% advertise share. The global chocolate market is worth 75% annually. To identify the customer inclination towards dissimilar chocolate varieties. To identify the factors distressing the customer observation towards nestle chocolate. Analysis of the creation, pricing, accessibility, worth, flavour, publicity and covering of nestle chocolates. This is focused on customer's inclination towards products. From study, it found out that greater part of customers choose nestle chocolates.

D. SHANTHI (2018) ⁴“A COMPARITIVE STUDY ON CONSUMER PREFERENCE TOWARDS NESTLE AND CADBURY CHOCOLATES WITH SPECIAL REFERENCE TO ERODE DISTRICT” Chocolate is liked and eaten by all age of people. The comparative study on chocolate between Cadbury and nestle helps in product development and improvement in launching of new product. The limitation of my study restricts itself to the analysis of consumer preference, perception and consumption of Cadbury and nestle chocolates. Some people often like to have a chocolate with good flavour, quality and crunchiness

² P. Abirami & S. Gayathri (2018) “A study on consumer satisfaction towards Nestle chocolate”.

³ N. Vijayanand, P. Thilairajan (2018) “A study on consumers inclination towards Nestle products in Chennai city”.

⁴ D. Shanthi (2018) “A comparative study on consumer preference towards Nestle and Cadbury chocolate with special reference to erode city”.



so they are going towards kit-kat and munch of nestle due to its taste and crunchiness.

ANALYSIS AND INTERPRETATION

The data collected from the samples have systematically applied and presented in the tables under various headings in the following pages. They

were also arranged in such a way that, a detailed analysis can be made so as to present suitable interpretation for the same. The data have been analysed using the following statistical tools.

- Simple percentage analysis
- Likert scale analysis

SIMPLE PERCENTAGE ANALYSIS

DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR INFLUENCED TO BUY NESTLE CHOCOLATE

S.NO	FACTORS	NO. OF RESPONDENTS	PERCENTAGE (%)
1	Price	20	16.7
2	Quality	62	51.7
3	Taste	38	31.7
	Others	0	0
	TOTAL	120	100

(Source: Primary data)

INTERPRETATION

The above table 10 shows that 16.7% of the respondents are prefer to price, 51.7% of the respondents are prefer to quality, 31.7% of the respondents are prefer to taste.

INFERENCE

It is concluded that majority (51.7%) of the respondents are prefer to quality of the Nestle chocolate.

LIKERT SCALE ANALYSIS

DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR INFLUENCED TO BUY NESTLE CHOCOLATE

S.NO	FACTORS	NO. OF RESPONDENTS	LIKERT SCALE (x)	TOTAL (fx)
1	Price	20	3	60
2	Quality	62	2	124
3	Taste	38	1	38
4	Others	0	0	0
	TOTAL	120		222

(Source: Primary data)

$$\begin{aligned}\text{LIKERT SCALE} &= \frac{\sum(fx)}{\text{number of respondents}} \\ &= \frac{222}{120} \\ &= 1.85\end{aligned}$$

INTERPRETATION

Likert scale value is 1.85 which is smaller than the mid value (3), so the respondents are not influenced to buy nestle products.

FINDINGS, SUGGESTIONS AND CONCLUSION OF THE STUDY

FINDINGS

Findings of simple percentage analysis

- It is concluded that majority (51.7%) of the respondents are interested in using nestle chocolate.
- It is concluded that most (63.3%) of the respondents are 21-30 years.

- It is concluded that majority (38.3%) of the respondents are under graduate.
- It is concluded that majority (40.8%) of the respondents are profession.
- It is inferred that majority (55.8%) of the respondents are unmarried.
- It is concluded that majority (59.2%) of the respondents have a family income Rs. 1,00,001- 3,00,000.
- It is concluded that majority (47.5%) of the respondents are weekly usage.

Findings of likert scale analysis

- Likert scale value is 2.69 which is smaller than the mid value (3), so the respondents are do not frequently use nestle product.



- Likert scale value is 2.96 which is smaller than the mid value (3), so the respondents are not influenced to buy nestle chocolate.
- Likert scale value is 2.60 which is smaller than the mid value (3), so the respondents are not influenced by the advertisement to buy nestle chocolate.
- Likert scale value is 1.85 which is smaller than the mid value (3), so the respondents are not influenced to buy nestle products.
- Likert scale value is 1.89 which is smaller than the mid value (3), so the respondents are not influenced by the advertisement.
- Likert scale value is 1.8 which is the smaller than the mid value (3), so the respondents are not satisfied with the information provided in the packages.
- Likert scale value is 1.83 which is smaller than the mid value (3), so the respondents are facing difficulties in using nestle products.

SUGGESTIONS

- Nestle company can concentrate on its packaging of a chocolate as consumers are not satisfied with it.
- Consumers are unsatisfied with the price and quantity of chocolate so companies can concentrate in this regard also.
- Nestle company should know the promotional offers and discounts of chocolates.
- Nestle company should concentrate more on the advertisement new chocolates varieties.
- Many other shaped chocolate are more increased when compared to last year's price so the price should be affordable.
- Nestle company can introduce variety of savours.

CONCLUSION

A survey of the people has been conducted to known the liking pattern of the nestle product. Quality is the main motivational factor for the consumers to buy the chocolates of nestle. It is concluded that mostly people preferred dairy milk of Cadbury due to its flavour/taste, quality and image and due to its hard form. Some people often like to have a chocolate with good flavour, quality and crunchiness so they are going towards Kit Kat and Munch of Nestle due to its taste and crunchiness.

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ENGLISH LANGUAGE TEACHING METHODS FOR NON-LANGUAGE UNIVERSITY STUDENTS

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ANNOTATION

This article is devoted to the problem of studying the methods and techniques of teaching English to students of a non-linguistic university. As an example, there are several modern and relevant methods of teaching English.

KEYWORDS: *methods, techniques, experience, English, teaching features, knowledge, information resources.*

МЕТОДИКА ОБУЧЕНИЯ АНГЛИЙСКОМУ ЯЗЫКУ СТУДЕНТОВ НЕЯЗЫКОВЫХ ВУЗОВ

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Аннотация

Данная статья посвящена проблеме изучения методов и приёмов обучения английскому языку студентов неязыкового вуза. В качестве примера приводятся несколько современных и актуальных методов преподавания английского языка.

Ключевые слова: *методы, приёмы, опыт, английский язык, особенности преподавания, знания, информационные ресурсы.*

DISCUSSION

Success in teaching English largely depends on the experience, skill, practical skills of the teacher and the depth of his knowledge of the modern language. In addition, the effectiveness of language acquisition is influenced by socio-cultural and economic components [3, p. 152]. It is also important to apply technical innovations in the teaching process. Rapid changes in the world and globalization require the teacher to systematically improve himself, update his own knowledge, use innovative methods and tools in his activities. In order to maintain and improve the socio-economic status of the country, English teachers must keep up with the times, at the same time be creative and resourceful, deeply know their subject, and master innovative teaching methods at a high level.

In light of the above, teachers need to:

1. Have access to online resources and fully provide it to students in order to improve the effectiveness of learning. Kurbanova Nilufar

2. Freely operate the most relevant selection of information resources that meet the requirements of the direction chosen by a group of students for study. In this way, contribute to the improvement of language learning skills using a computer.

3. To teach skills, without which it is impossible to work productively in the era of computerization, including reading and writing text, schematic, graphic or other info structures on a PC. Promote communication and publication in the format of online resources.

4. Fully and from different sides to develop computer literacy, so that the training course is a



single whole, and not just a set of separate components.

Teaching a foreign language using information and communication technologies (ICT) and multimedia (MMS) opens up great prospects. ICTs today are the backbone of the life of society. Therefore, good knowledge and excellent proficiency in ICT skills are very effective tools that increase the quality of teaching and its effectiveness, respectively. This technique allows not only to develop communication at a higher level, but also to significantly improve language literacy [1, p. 89]. Thus, the use of ICT gives learners the opportunity to become competent users of the English language with a broad profile.

According to research results, the use of ICT and MMS in learning English significantly helps:

- Improve writing and reading skills;
- Develop better speaking and listening skills;
- Ensure productive interaction both with the teacher and between students within the group;
- To unleash creativity;
- Improve the effectiveness of self-study and feedback.

Information and communication technologies, being a fruitful interactive environment for the group, open up a number of additional opportunities:

- Easy access to a wider range of sources, more diverse information;

Mastering the variability of the formation and presentation of the information received;

- Increasing the coverage of the trained audience;
- expanding the range of tasks;
- providing an opportunity to choose goals and methods of teaching;
- highlighting the main characteristics and features of the information offered for study;
- significant improvement in language perception, understanding and literacy in general.

The introduction and active use of ICT tools greatly facilitates the acquisition of the English language, thereby increasing the quality of education [7, p. 143]. Applying technological innovations in the modern world is an integral part of life. At the same time, computers and various software are mainly developed by English-speaking countries. Accordingly, everything is based on English. The World Wide Web has shown the process of combining technologies: television, telephone, music, as well as innovative consumer technologies such as multimedia PCs and Net TV. Due to this, the English language today is present every second in every home, in all educational, social and cultural institutions, etc.

Multimedia technologies - a set of different types of information presentation in the digital environment [6, p. 97]. In other words, text, graphic, audio and video information is collected into a single multi-touch interactive file that is intended for

presentation to the audience. This method is intended to focus on auditory perception, visually attractive display of text blocks, possibly with additional animation, as well as on video and semantic load. For this, various devices are used: PCs, mp3 players, mobile phones, tablets. Individual components of multimedia can be easily digitized, modified whole blocks, adjusted individual elements, and then included in the final presentation.

The main goal of this method is to interest and hold the attention of students for a long time. The perception of information from multimedia and its further assimilation by students is much easier and more complete. In addition, with their help, students simultaneously and successfully develop four basic, inextricably linked and complementary skills: listening, speaking, reading, writing. Reading and listening are related to the ability to fully perceive information, while speaking and writing are investigative and productive skills. Collectively, they determine the way of communication (oral or written) and the direction - receiving or creating a message. This practice is very useful not only for English learners, but also for native speakers.

In the process of teaching English, it will be effective to use any of the above methods or a combination of them. It is only important to correctly choose the most appropriate, based on the context of the information being studied. There is no single best way, as the level of students varies. Therefore, the teacher needs to use those that are more suitable for a specific group of students and each specific case, and also correspond to the purpose of the lesson. Only in this case will the techniques be considered innovative.

The case-study technique (from the English case - case; in the programming language - the operator of the variant) is an analysis of a specific situation [4, p. 63]. That is, teaching English occurs by analyzing certain situational tasks. The main goal of the methodology is to develop students' analytical abilities and the ability to understand the essence of problems, teach them how to find ways to solve them and choose the optimal ones.

By analyzing specific situations, students acquire and hone their skills to work in a team, correctly determine the role of each participant, interact productively and find the best way out of the proposed situation. The use of specific situations implies the following stages of interaction [3, p. 156]: 1. Preparation. When a group of students is explained the essence of the work ahead.

2. Familiarization. For a group of students, the information with the initial data is summarized (approximately within 20 minutes).

3. Analytics. Students discuss among themselves, learn to ask the right questions that reflect the problem, and get meaningful answers.



4. Outcome. When, based on the information obtained during the discussion, students draw conclusions and determine the best way to solve the problem.

It is essential for effective learning to involve all members of the group in the discussion of the situation. At the same time, the teacher is not a direct participant in the discussions, his tasks are to encourage students to full, productive interaction, to set and correct the direction of the discussion, if necessary. By following this method, students become "players of the same team".

Moreover, there is absolutely no need for students to have special knowledge about the problem in advance. As has already been clearly shown in practice, learning English in an interactive way gives a number of main advantages [5, p. 112]:

- Involves each member of the group in the discussion, while students stop feeling like just observers from the outside.
- Many times superior to didactic methods in terms of ease and usefulness of information perception.
- Significantly increases the efficiency of assimilation of information in the training course.

Conclusion.

In order to remove some of the obstacles to effective teaching of the English language, it is important in the process of mastering not to forget about its great importance in all areas of life around the world. If in the course of training the emphasis is on traditional translations and standard tasks, work only with the grammatical features of the target language and pronunciation, then we can say that the degree of assimilation of information, as well as the depth of knowledge and skills will no longer meet modern requirements.

In addition, for students of different levels, for different conditions and purposes of study, other methods may be more appropriate. Several key points have been identified that are relevant to use in order to maximize student preparation:

1. Encourage and encourage students to actively interact with each other to discuss the information presented.
2. Prepare in advance questions that will support the debate, if necessary, ask, change or adjust the direction of the discussion.
3. Make it a rule to communicate with the group only in English.

By introducing innovation and the above concept, the teacher will be able to go beyond the traditional teaching method, thereby will significantly increase the efficiency of its activities. And the success of the group will serve as irrefutable proof of this.

However, in order to keep up with the times, meeting the ever-growing needs of society, work is constantly underway to update and improve teaching methods in

foreign universities. Moreover, given the pace of globalization, learning English is becoming a key investment in education.

Modern information and communication technologies have created ample opportunities for the development of new forms and methods of teaching.[8,p 145]

Applying advanced teaching methods and tools, it is possible to significantly increase student motivation and effectiveness, respectively, to achieve the depth of knowledge and skills that were previously possible only with a long stay of the student among native speakers.

It is also worth noting that the new paradigm puts the role of the student himself in achieving the desired result on the same level of importance with the work of the teacher. For its part, the role of the teacher has also undergone changes - now his function is more mediating. In the environment of an advanced generation with the use of innovative techniques, as well as computer, multimedia, information and communication technologies, this becomes quite logical and even inevitable.

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MEDIA LITERATION MODEL BASED ON THE LOCAL WISDOM OF THE VILLAGERS OF CEPOGO, BOYOLALI REGENCY

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ABSTRACT

This study seeks to explore the local wisdom of the Cepogo villagers and obtain a filter model that is appropriate to the conditions of the local community. The urgency of this research is to encourage the realization of a local wisdom-based media literacy movement in the local area. Research Methods. This research is an exploratory research that looks at local wisdom in dealing with mass media exposure in Cepogo Village, Cepogo District, Boyolali Regency, Central Java. Data collection. Data were collected from secondary information, including books, notes, and other information relating to Cepogo village. This can be done by observation and on the spot (ethnographic). Primary data obtained by in-depth interviews with key informant figures who when on the spot researchers get the right informants. Researchers will also conduct in-depth interviews on existing opinion leaders and key persons and other informal figures. Data Determination of Subjects, Research subjects are determined by snow ball mechanism, on figures who understand Cepogo local wisdom.

The results of the research are that the filter models that can be made with the local wisdom approach are (1) Memorial reflection, a psychological reality when visiting and praying at ancestral or parent burials, (2) Intimation Communication, a communication reality that occurs when visiting residents and brother, to a house which is a private space, (3) Inheritance of Virtue, a sociological reality when cultural values then flow from generation to generation where when these are repeated and repeated moments (cultural events), the spirit or cultural spirit will be become media exposure filter modeling material, and (4) Social Capital Accumulation, interaction between citizens is actually an interaction that increases social capital. People who are not involved in interactions are likely to be socially alienated. He then became socially poor in the local community structure, because he did not try to enrich him.

KEYWORDS: Literacy, Media, Wisdom, Local, Cepogo

INTRODUCTION

The mass media, with their penetration ability, seem to make it impossible for individuals to dodge their exposure. Every part of the time the audience is continuously exposed to millions of messages through various media, both electronic media, print, to digital media. This reality is evidence that individual existence has been 'held hostage' by the existence of the media. This will certainly have an impact on the psychological dynamics of the audience, almost without them knowing it, until the media has become an addiction on which humans depend. Indeed, information technology is like a double-edged knife, it can have two effects at once, namely positive and negative. Technology is humanity's last love.

A number of cases of violence against children have recently emerged in the country. The Indonesian

Child Protection Commission or KPAI noted that in the last 7 years the number of cases of child abuse has reached 26,954 cases. The highest cases were cases of children facing the law as both perpetrators and victims, which reached 9,266 cases. The touching cases occurred in Bandung, West Java. The victim NF (15), a junior high school student in class VIII SMP in Ciumbuleuit, West Java, was the victim of abuse by her ex-lover because she was accused of destroying the relationship between the hospital, her senior, and her new lover. The hospital perpetrator who was arrested four hours after the incident, admitted he was hurt by the victim. The victim suffered wounds on his right and left arm using a knife that had been prepared from home. In addition, the victim was also strangled in the neck. This case indicates how some media audiences, especially children and adolescents, are unable to filter



the effects of mass media impressions. In other words, currently, Indonesian people do not yet have an adequate level of media literacy. More than that, there is an impression that Indonesian society does not have a model to make people smart in media.

Whereas on the other hand, this republic is actually very rich with local wisdom that is spread in various regions of the country. Wealth actually teaches a lot to act in the dimension of wisdom that can be absorbed into the media literacy model. Cepogo is a plateau that easily gets television signals and internet networks. Various types of media can be accessed by a wide audience in the area. Related to media literacy, there is a thought to filter the exposure of millions of messages through local wisdom. Theoretically, local wisdom is a manifestation of cultural teachings that live and are lived by a local community. Culture can be used as a filter for messages with foreign cultural dimensions published to the public, such as the Nyadran tradition in Cepogo. In this context, the value of local wisdom is raw material that can function. Key words, maximum 5 words. Research background not more than 500 words containing the background and problems to be studied, specific objectives, and research urgency. In this section it is necessary to explain a description of the specific specifications related to the scheme. as a filter for that wild message. The illustration is the "ngrowot" ritual that Javanese people usually practice such as "pati geni", to nyepi for our Hindu brothers, whose essence is a form of self-defense.

A mechanism to limit the intake of the body's needs, which can be compared with media consumption. Based on the above problems, an initial study of the local wisdom of Cepogo Boyolali village is needed in dealing with media exposure. The local wisdom of the Cepogo Boyolali village community is a great wealth that needs to be preserved to ward off foreign cultures that are not in accordance with local values.

LITERATURE REVIEW

MEDIA LITERATION

Media literacy according to Baran & Denis is a series of media literate movements, namely: the media literacy movement is designed to increase individual control over the media they use to send and receive messages (4). Media literacy is seen as a skill that can be developed and exists in a chain where we are not media literate in all situations, every time and to all media. Taking this reference, media literacy is an effort that is consciously made by individuals to understand the various forms of messages presented by the media, and is useful in analyzing from various

points of view of truth, understanding, evaluating and also using the media (5)

LOCAL WISDOM

Local wisdom is defined as a view of life and knowledge as well as a life strategy in the form of activities carried out by local communities in meeting their needs. Based on this opinion, local wisdom is a custom and custom that has been traditionally carried out by a group of people from generation to generation which is still maintained by certain customary law communities in certain areas. In other words, local wisdom can be understood as local ideas that are wise, full of wisdom, of good value, which are embedded and followed by members of the community. With a slightly different description, local wisdom is the way people behave and act in response to changes in the physical and cultural environment. In life, local wisdom can be a thought or conception in society. It is nurtured and grows and develops even when it comes to transcendental or even profane life dimensions, though. In the practice of life, local wisdom is expressed in the form of words of wisdom (philosophy) in the form of advice, proverbs, rhymes, poetry, folklore (oral stories) and so on; social and moral rules, principles, norms and rules that form a social system; rites, ceremonies or traditional ceremonies and rituals; as well as habits that are seen in daily behavior in social interactions.

MEDIA THEORY

This research is supported by the theory of use and gratification (Uses and Gratification Theory) from Elihu Katz and, Jay G. Blumner and Michael Gurevitch. This theory states that people actively seek certain media and certain content to produce certain satisfaction (or results). In developing this theory, people are said to be active because they are able to study and evaluate various types of media to achieve certain goals. Research requires theoretical reinforcement to analyze the impact of mass media, so that researchers feel the need to take advantage of Mass Society Theory. In this theory, it is explained that, on average, people are victims of the mass media. The general public is in a weak position because of the strong and continuous objectification of the media.

Furthermore, to discuss the exposure of the mass media and audiences, this research will be guided by an analysis knife which expresses the idea that 'the audience does not care' from Richard T. La Piere. According to Piere, that the core environment such as home or family, church and friendship networks, more influence the values, attitudes and behavior of individuals than the media. Individuals turn to the media for what they are looking for. He didn't volunteer to be influenced. Richard saw that individuals do not



easily change their direction of belief due to distant media relations and generally people will trust their closest social groups more. A new media message will be accepted if it matches the social environment message. For the model, which is used to explain local wisdom-based media literacy, is a special model developed by Rumah Sinema in 2012. According to Rumah Sinema there are 4 (four) models that can be applied to the realm of media literacy: the first is the Protectionist Model, this model forces the audience choose good shows and avoid bad shows. The form of activity is the Media Diet, setting viewing schedules, and the like. Second, is the Uses and Gratification model. This model provides audiences with the ability to select and sort media content. The form of its activity is to study mass media work. Thus the audience is able to make their own decisions in choosing the media. Third, is a model of Cultural Studies. This model persuades the public to analyze and criticize the existence of the media. The manifestations of his actions include the No TV Day Campaign, Media Diet, Media Boycott, and others. Lastly is the Active Audience model. This model trains the audience to be able to interpret media content based on their respective backgrounds (9)

METHOD

This research is an exploratory research that examines local wisdom in dealing with mass media exposure in Cepogo Village, Cepogo District, Boyolali Regency, Central Java. The exploratory research in question is research that is open in nature with the main emphasis being on finding ideas and views. The paradigm of this research is constructivism which has an understanding-oriented character, socio-historical construction and theory creation (10) This study seeks to reveal a media literacy model based on local wisdom related to preventing the negative impact of mass media exposure to the production stage of media messages. The result is an in-depth description in a particular setting and context that is studied from a complete, comprehensive and holistic point of view (11). While the approach used in this study is the ethnographic approach.

Ethnography is the description and interpretation of a culture or social group system. Ethnography is closely related to culture. Culture is even the main thing in ethnographic studies (12). The style of this research is descriptive, with several things that stand out, namely: (1) Producing categories or type classifications, (2) Explaining the stages or order (13). The data collected are primary data and secondary data. Primary data were obtained from semi-structured interviews with related parties, especially community leaders and the Cepogo Boyolali community. Informant

interviews were conducted with the help of an interview guide approach (14). Data collection. Data were collected from secondary information, including books, notes, and other information relating to Cepogo village. This can be done by observation and on the spot (ethnographic)/

Primary data obtained by in-depth interviews with key informant figures who when on the spot researchers get the right informants. Researchers will also conduct in-depth interviews on existing opinion leaders and key persons and other informal figures. Data Determination of Subjects, Research subjects are determined by snow ball mechanism, on figures who understand Cepogo local wisdom. This can be done through ethnographic-live in the local community. Target Data. Data collection has a target, namely data on forms of local wisdom that exist in Cepogo village, with regard to the possibility of being modeled on media exposure. The credibility of this research will be maintained by triangulating the results of the research, in the sense that it is with similar research research. The direction to achieve research credibility is also carried out when determining key informants, in order to obtain valid data. Determination of key informants can be done by profiling, in which, among other things, researchers can live-in at the research location. Determination of the research location using purposive sampling technique with the criteria of villages / villages in areas that have good media access and are areas that have local wisdom. To achieve this, data rows must be treated through three activities that occur simultaneously, namely data reduction, data presentation, and conclusion drawing (15).

RESULTS AND DISCUSSION

A. Sadranan Tradition and It's Opportunities as Media Exposure Filter Model

At the time interval of the middle of the month of Sa'ban / Ruwah according to the Javanese calendar, residents in Cepogo village hold the Nyadran or Sadranan tradition. This activity is in the form of a feast at a public cemetery to send prayers to ancestors who have died. There is a unique fact about how Sadranan is in Cepogo village, after a feast was held at the location of the local tomb, followed by a gathering. Relatives, friends and relations, came to gather. The host has also prepared various dishes to entertain guests who come. So that the atmosphere is similar to the celebration of Eid or Eid. According to the village elder of Cepogo, KH Maskuri, the tradition of sadranan was packaged from the teachings of Wali Songo, where in the 1450s, Sunan Kalijogo carried out his preaching to the southern interior. At that time, this area was not



familiar with religion, but people had gathered in groups and gathered to pray a prayer. This sadranan has a meaning so that humans will remember their predecessors, parents or ancestors.

In its development there are efforts to do it collectively at funerals. In that series, there is a Punggahan festival that takes place in each environment. In the evening there is a joint dzikir tahlil, where the next day there is a bubak or cleaning of the village tombs, which is followed by gathering again at the grave for Nyadran and prayer together. At that event, each villager brings tenong or a tool like a large tray containing various foods. Then, after the dhikr, tahlil and prayers together, the dining place was opened to eat together and entertain the heirs who came at that time for pilgrimage and nyadran. Another sociological dimension in nyadran is the gathering to the massive residents of the community. After the pilgrimage to the grave, the heirs from afar stopped by their relatives in the local village. More than that, not only relatives or close relatives, but also the outer circle where they invite their friends and co-workers. This was academically confirmed by Bayuadhy, who said that the Sadranan Ruwahan Tradition was the Nyadran tradition carried out by the Javanese people to welcome the coming of the month of Ramadan (Bayuadhy, 2015) Nyadran is usually held in the month of Ruwah (Sya 'ban) before the fasting month (Ramadhan). Usually pilgrims bring flowers to be sprinkled on the graves of their ancestors. Nyadran people usually pray for their grandparents, fathers, mothers, or relatives who have passed away. After praying, the community held a feast together in a place that could accommodate a large number of people. Each family who participates in the feast brings various types of traditional food that are commonly used for festivals (Bayuadhy, 2015). So the Sadranan Ruwahan Tradition is Sadranan which is carried out before the fasting month. The implementation between Sadranan Mauluddan and Ruwahan is the same, the only difference is the time of implementation. In addition, it is not only the elders who participate in following the Tradition but the youth or village youth. The preservation of this tradition can strengthen the ties between residents, making them harmonious, peaceful, and safe.

The Sadranan tradition is one of the local wisdoms owned by the people of Dukuh Kadipiro. In the dictionary sense, local wisdom consists of two words of wisdom (wisdom) and local (local). In the English Indonesian dictionary of John M. Echols and Hasan Sadily, local means local, while wisdom is the same as wisdom. In general, local wisdom can be understood as local ideas that are wise, full of good-value wisdom, which are embedded and followed by

members of the community (Affandy, 2017). If viewed from an etymological point of view, the word tradition comes from Latin, namely tradition which means 'passed on' or 'habit'. In the simplest sense, it is something that has been done for a long time and has become part of the life of a community group (Anton, 2015). Sadranan or nyadran comes from the Sanskrit language, sraddha which means belief. When nyadran, people in the countryside clean the tomb. In addition, the community also sows flowers and prays for their respective ancestors in order to have a good (good) place with God. The highlight of the Nyadran ceremony is a feast of salvation in each house (Bayuadhy, 2015).

The Sadranan tradition is a custom inherited from the ancestors in a certain area which is carried out by the community with a goal to be achieved. Furthermore, chronologically it can be described how the implementation of the sadranan follows the stages that have been agreed upon and from generation to generation. The procession of implementing the Sadranan tradition consists of several stages, namely:

1. Kondangan Malam / Tahlilan In the implementation of the invitation or feast of the night / tahlilan, local villagers pray together to ask forgiveness from the ancestors, and pray blessings to God Almighty. Kondangan or feast of the night / tahlilan will usually be held at the time after Isya 'prayer. The villagers go to the location of the invitation or feast night / tahlilan which takes place in the village cemetery complex in their respective regions.
2. Clean the Tomb The next day at around 5 am, the people of Cepogo Village flocked to the tomb to clean it up, especially the graves of their ancestors and the graves of figures who were considered meritorious and important in Cepogo Village. The spirit of this activity is for the tomb to be clean so that it provides a sense of comfort for residents or families who want to visit and make pilgrimages to the graves of their ancestors. In addition, this grave cleaning event also creates a sense of kinship and a peaceful atmosphere for the local village community.
3. Tenongan The Sadranan tradition in Cepogo Village is also synonymous with tenongan. The tenongan started with someone who brought food to the people who were cleaning the tomb. Then this tradition continues today. Tenong is a place made of bamboo which is used by the Cepogo village community as a container for food to be brought to the tomb.



4. Gathering The final part of this Sadranan tradition is gathering. The atmosphere of hospitality during the Sadranan tradition is not much different from the gathering during the Eid celebration. Sadranan in Cepogo Village is also often referred to as the Eid of the mountain slopes. The village community will visit their parents and relatives place first, then they will visit the houses of village leaders, religious leaders, or local village elders. If they have many siblings, they will usually share a place so that as many siblings as possible they will be visited.

If we take an inventory of values with the dimension of local wisdom, then the opportunities offered by Sadranan can be described as follows: 1. Memorial reflection, a psychological reality when making pilgrimages and praying at the funeral of ancestors or parents. 2. Intimation of Communication, a communication reality that occurs when residents and relatives visit each other, to houses which are private spaces 3. Inheritance of Virtue, a sociological reality when cultural values then flow from generation to generation are typed into moments that are repeated and repeated (cultural events), then the spirit or cultural spirit will become a media exposure filter modeling material. 4. Social Capital accumulation, interaction between citizens is actually the interaction of multiplying social capital. People who are not involved in interactions are likely to be socially alienated. He then became socially poor in the local community structure, because he did not try to enrich him.

B. Villagers Filter Model Based On The Local Wisdom Of Nyadran and Gugur Gunung at Cepogo, Boyolali Regency

Local wisdom that is manifested in the Nyadran tradition, when examined carefully, can contribute to the media selection activities carried out by the Cepogo village community. This was said by one of the informants who is also a youth leader in Cepogo village. According to Anjis, it is a very good thing when the world, which is full of wild information from outside, gets a good filter. A filter that actually comes from activities that come from our local culture. Furthermore, it can be explained that defining the concept of media literacy is not only from the technical-technological dimension, but also touches the cultural aspects which are the context in which media literacy is created and manifested in order to prevent and overcome its impact where local wisdom is the idea of a wise local community. , full of wisdom, with good values embedded in values and followed by the community (Darmastuti, 2012).

On the other hand, exposure to the media with various kinds of content which are considered as modernity is a part of the thought of the established traditional society. One of the disturbances (in this context) came from the increasingly powerful messages carried by the mass media. The people of Cepogo Village are in a transitional / transitional condition, from traditional to modern, where communication access, the internet, mass media and others can be accessed. Media literacy is the ability to access, analyze, evaluate and transmit messages in print and non-print formats, namely television, video, film, advertisements and the internet (Potter, W.J; 2005). In Law Number 32 of 2002 concerning Broadcasting, it is stated that the state controls the radio frequency spectrum used for broadcasting for the greatest benefit of the people. So whatever information is conveyed by the broadcast media must be of benefit to the public, namely the need for healthy broadcasts. Furthermore, the above model will be discussed with the approach introduced by Sonia Livingstone, which is as follows:

1. Access

Access to media is a dynamic social process, where after initial access is carried out, development of understanding (literacy) leads media users to develop significantly and continuously under various access conditions (updates, upgrades, hardware development and software applications). The problem is gaps in socio-demographic material, social and symbolic resources, gaps in access to knowledge, communication and online participation will continue. Accessing which is used in this research is the ability of the audience in finding, obtaining, and gathering information. Access to media can be found anytime and anywhere. In terms of their ability to access mass media, the people of Cepogo Village are quite good. They have become part of the media audience because several print, electronic and even internet services are readily available and affordable.

2. Analysis

Analysis is a skill that can help someone explain the form of a message, structure, segment, message impact, and so on. Analysis is concerned with the ability to search, change, and select information tailored to individual needs. Uses and gratification theory states that people actively search for certain media and certain content to produce certain satisfaction (or results). In developing this theory, people are said to be active because they are able to study and evaluate various types of media to achieve



certain goals. In terms of their ability to analyze the content of media messages, the informants stated that they, especially children, were not yet aware of the negative effects of mass media broadcasts. They do not yet know that the reality in the mass media is constructed in such a way based on the political economy of the mass media. Most people also have not developed various abilities to take advantage of the various opportunities offered by online media. The wisdom held by the Cepogo village community is related to the ability to analyze media messages, namely tolerance and selflessness so that they are respected in society. This means that the impressions that depart from these recommendations are not suitable for consumption so that the impact of these impressions does not occur on media users. Even though the community does not have the ability to analyze mass media messages maximally, they are less sensitive to the construction of mass media impressions, but the cultural values of the Cepogo village community which teach cooperation, peace and hard work encourage them to be able to determine what shows are worth watching or not worth watching.

3. Evaluation

Evaluation is the ability to link received media messages with experiences. Evaluate information based on parameters, such as truthfulness, honesty, and importance of the message producer. So, by evaluating the awareness that the audience still has the prerogative right in interpreting media messages for themselves. Of the interviewed informants, they have not been able to carry out evaluations based on these parameters. This is because the mass media functions as a medium of entertainment and the information obtained is not checked again with other sources. Local wisdom used by the Cepogo village community in evaluating media messages is guided by local values. These local values include their adherence to togetherness, mutual cooperation, tepo sliro, and leadership and religiosity.

4. Content Creation

Producing messages as part of message creativity is a person's ability to compose messages or ideas with words, sounds, or images effectively in accordance with the principles of communication science. Creating media is related to the production and distribution of media content, as well as

communicative competence. The results of observations and interviews show that when referring to Livingstone's media literacy limits which include access, analysis, evaluation and creating content, of course the Cepogo village community has certainly not reached this level, even if it has not reached expectations. But through local wisdom, the negative effects of mass media exposure can be prevented so that the culture that develops in Cepogo villagers is on local culture, not media culture.

CONCLUSION

From this research it can be concluded that the filter models that can be made with a local wisdom approach are (1) Memorial reflection, a psychological reality when visiting and praying at ancestral or parent burials, (2) Intimation Communication, a communication reality that occurs when visiting each other between citizens and relatives, to houses which are private spaces, (3) Inheritance of Virtue, a sociological reality when cultural values then flow from generation to generation where when typed into a moment that is repeated and repeated (cultural event), then the spirit or cultural spirit This will be the media exposure filter modeling material, and (4) Social Capital Accumulation, the interaction between citizens is actually an interaction that increases social capital. People who are not involved in interactions are likely to be socially alienated. He then became socially poor in the local community structure, because he did not try to enrich him.

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SOME SOCIAL FACTORS OF LOW DEVELOPMENT INDICATORS-A DISCUSSION IN THE CONTEXT OF DEVELOPING COUNTRIES

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ABSTRACT

Human development focuses on improving the lives of people. It not only leads economic growth but to greater opportunities for all. Income growth is an important means to development, rather than an end in itself. Human development is a dynamic process to provide people more freedom and opportunities to live. There are three foundations for human development which are 1) healthy and creative lives 2) availability of opportunity to make people knowledgeable, and 3) access to resources needed for a decent standard of living. Many other aspects are important too, especially in helping to create the good conditions for human development, such as environmental sustainability or equality between men and women. All of these parameters of development are subject to proportional availability of resources for people. This is the room for which the study has tried to familiarize the relation between development and population growth. Further the study has tried to analyses the correlation of population growth with some important socio- economic factors of it. At the end, the study devoted it's time to find out the most appropriate causes as of low development indicators (DI) particularly in developing countries. It reveals that, three social issues like income, literacy and infant mortality (or health security) are most influencing agent for the success of social development programme.

KEY WORDS: Human Development, Population Growth, Natural Resources, Fertility Rate, Death Rate, Infant Mortality Rate and Per-capita income.

1. INTRODUCTION

Human development is about human freedoms. It is about building human capabilities—not just for a few, not even for most, but for everyone. It is the creation of capabilities for adopting themselves with existing natural resources. The level of human development is measured by HDI (Human Development Index). It is a composite index of four factors consisting Education, Health condition, Income and Gender equality. Availability of all such indigenous factors of HDI depends upon the status of some exogenous factors like, Population pressure, Natural Resources and state of Technology. Here we may start with third one. Technology is a system which makes the possible of optimum utilization of our limited resources. Actually, it may curb the problem of limited access. If we can improve our technology, it can scatter our limited resource to maximum people so as HDI may increase. But Technological improvement needs Educational research and capital formation. Finally, it requires surplus of resources which may create some leisure hour.

The shortage or plentifulness of natural resources may have two concepts i.e., absolute concept and relative concept. The plentifulness of resources is not the cause of any anxiety in development process. The epicenter of our anxiety remains in case of scarcity of resources. Here, the scarcity may have in absolute or relative forms. In case of relative deficiency of resources, we may have two ways for rectification of it. One, re-distribution of resources and two, find out the proper way for optimum utilization of it. No doubt, our good thinking on Socio, Political and Environmental aspects may easily ensure the possibility of such re-distribution.

Let us now come into the concept of absolute shortage of resources. In such case there is no way except the control of consumption. And this is the room for discussion about the population growth and development dichotomy. Natural resources are limited. So, our concern is about the optimum utilization of it without affecting its availability for future generation. From the point of sustainability, we are concern about the availability of resources/wealth and its use for human beings



forever. We know, Population growth is also a natural phenomenon. There may have the two concepts about the size of population in regional perspective: Expected/bearable level of population and above expected level of population. If population size is within bearable level then there is no problem at all. Our anxiety starts when the population level exceeds its expected level. Here, expected means the size of the population appropriate with resource available within the nation. Therefore, the primary objective of our present study is to find out the relationship between human development and population growth of developing countries. And ultimate objective is to construct a policy measure for curbing the anti-development issues related with population growth.

Population growth and Development

There is a dual role of population growth in the process of development. In one way it helps the process and, in another way, it hampers development initiatives. This is so because the relationship between population growth and economic development is complicated, complex and interacting.

On the one side, an increasing population expands the supply side of labour market where, labour is a basic factor of production. And growth of population and labour supply has all along been one major source of growth in history. It should be noted that human labour, assisted by necessary tools and implements, is the utmost productive asset of nations.

Growing population leads to an increase in total output. But it makes for a greater number of people among whom this must be distributed. No doubt, there is large number of productive hands but there is also more candidates to consume it.

According to Gill (1992), if population growth is associated with high fertility and an increasing number of children relative to adults, then the number of consumers will be growing more rapidly than the number of producers, the dependency burden on the active workers of the society will be heavier, and the effect may be negative. But if there is a rise in life-expectancy which extends the productive years of the workers of the society, then the problem of an increased burden of dependency may be at least partially offset. (Nipun, n.d.)

Therefore, the effect of population growth on a society's per capita output and other development factors depends on the pattern of population growth as also its institutional (organizational) framework. In other words, it depends on the age composition of the population. In most cases of developing countries, such institutional framework, dependent ratio and pattern of population growth is not favourable for Human development. A positive step against underdevelopment in this demographic and institutional framework is the inspiration of our present study.

2. LITERATURE REVIEW

The everyday activities of all human beings, communities and countries are interrelated with population change, patterns and levels of use of natural resources, the state of the environment, and the pace and quality of economic and social development. There is general agreement that persistent widespread poverty as well as serious social and gender inequities have significant influences on, and are in turn influenced by, demographic parameters such as population growth, structure and distribution. (Programme of Action adopted at the International conference on Population and Development, 1994)

Many of the stresses of rapid population growth are exacerbated by poverty and inequality. Continued Rapid population growth poses bigger threat to poverty-reduction in most (but not all) countries. This growth will require unprecedented investment in new infrastructure and create undreamed challenges for political and social institutions. (Nader Motie Haghshenas, 2007)

The investigation of the relationship between population growth and Human Development Index is vital as the population debate lies at the core of the current worldwide interest and as human development is often used by foreign aid agencies in determining the distribution of aid (Menkhoff, 2000). The problem of population is not simply one of number, but involves the quality of life or human welfare and material well-being. There is no consensus of opinion about how serious a problem rapid population growth really is. On the one hand, one must recognize that population growth is not the only cause of under-development. On the other hand, it is unwise to think that rapid population growth is not a serious intensifier of under-development in some Third World countries (Todaro, 1989). Todaro raised many questions on population growth, such as: to what extent does rapid population increase make it more difficult to provide essential social services? How are developing and less developed countries able to cope with the labour supply over the years? Will it be a cause for a rise in unemployment? Will the population growth ensure adequate health care and basic education? If these were true, then should the low level of living be the single most important factor in limiting population growth? The First World Population Conference held in Bucharest in 1974 tackled the main elements of the population debate. These issues were then reiterated at the second conference in August 1984 held in Mexico City. This debate continues and no consensus has been reached either by policy makers or academicians as to the true impact of population growth on a country's economic growth. Critics argue that it is not the sheer number of people that is causing population problems but rather their distribution or concentration. The real problem of population arises not from its overall size



but from rural urban migration or the concentration of the population in some geographic pockets within the country. To this end, Todaro (1989) argues that governments should strive to bring out spatial distribution of the population in terms of available land and other productive resources, which will significantly balance the distribution of capital among the workers. Secondly, critics argue that with high population, the consumer is provided with lower product cost due to economies of scale at high technological standards and thereby achieving higher output levels. As a result, there exists a direct relationship between improvement and productivity, which is an essential ingredient in stimulating economic development and fighting under-development (Todaro, 1989). King argues that there is merit in the debate that population growth affects economic development; however, such argument holds for traditional question of food supply. He argues that the demand for other non-renewable resources is more of a consequence of rising income and production per person (King, 1985). Even with the issue of food supply, he argues that it is often the result of mismanagement of officials by offering limited technology and weak incentives to producers. However, empirical work by (Mc Nicoll, 1984),

(Kelly, 1988) and (Schmidt, 1994) has shown that population growth can affect economic performance if it affects the relationship between supply and demand for savings and capital. Of particular interest is the finding that such hypotheses were stronger for less developed countries than for developed countries. The above review of work on population growth is by no means comprehensive or complete, but sufficient to drive home the point that there is a divide within policy makers and academicians alike.

3. OBJECTIVE OF THE STUDY

The primary objective of our present study is to analyze the impact of population growth rate on human development in India by doing the regression analysis of different variables. Our secondary objective is to find out the real facts behind most influential factor of human development. At the last stage, we have mentioned some plans and program for eliminating the problem to some extent.

4. RESULTS

To achieve the first objective, we have used HDI index and the data of population growth of 21 developing countries.

Table 1: Some basic development indicators

SL. No. (1)	Name of Country (2)	Total Fertility Rate (births per women) average 2005-2010 (3)	Infant Mortality rate (per 1000 live birth) 2016 (4)	Labour force participation rate of Female (%age 15 and above) 2017	Population living below income of poverty line (%) 2006-17 (5)	Adult Literacy rate (% ages 15 and older) 2006-2016 (6)	Female literacy rate (% age 15-24) 2006-2016 (7)	Per capita GDP (2011 ppp\$) 2017 (8)	Estimated Crude Deaths 2016 (9)	Population Growth (average) % 2005-2010 (10)	HDI 2017 (11)
1	South Africa	2.6	34.2	47.9	55.5	94.4	99.2	12295	9.4	1.1	.699
2	Indonesia	2.5	22.2	50.7	10.6	95.4	99.7	11189	6.5	1.3	.694
3	Viet Num	1.9	17.3	73.2	9.8	93.5	96.8	6172	5.9	1.0	.694
4	Bolivia	3.4	29.5	55.2	39.5	92.5	99.4	6886	6.4	1.7	.693
5	Palestine	4.6	16.6	19.5	25.8	96.9	99.3	4450	3.5*	2.6	.686
6	Iraq	4.6	25.9	18.7	18.9	43.7	48.6	15664	3.8	2.6	.685
7	Kyrgyzstan	2.8	18.8	48.2	25.4	99.2	99.8	3393	6.5	1.3	.672
8	Morocco	2.6	23.3	25	8.9	69.4	87.8	7485	4.9	1.2	.667
9	India	2.8	34.6	27.2	21.9	69.3	81.8	6427	7.3	1.5	.640
10	Bhutan	2.6	26.8	58	12.0	57.0	84.5	8709	6.5	2.1	.612
11	Bangladesh	2.5	28.2	33	24.3	72.8	93.5	3524	5.4	1.2	.608
12	Congo	5.0	38.5	67.4	46.5	79.3	76.9	4881	9.6	3.3	.606
13	Ghana	4.4	41.2	74.8	24.2	71.5	83.2	4228	7	2.6	.592



14	Kenya	4.7	35.6	62.4	36.1	78.7	86.1	2993	6.7	2.7	.590
15	Zambia	5.6	43.8	70.1	54.4	83.0	86.5	3689	12.2	2.8	.588
16	Combodia	3.1	26.3	80.9	17.7	73.9	85.9	3645	7.5	1.5	.582
17	Angola	6.4	54.6	75.3	36.6	66.0	70.6	5819	9.2	3.6	.581
18	Myanmar	2.6	40.1	51.3	32.1	75.6	84.4	5592	7.4	0.7	.578
19	Nepal	3.0	28.4	82.7	25.2	59.6	80.2	2443	5.6	1.1	.574
20	Pakistan	4.0	64.2	24.9	29.5	57.0	65.5	5035	6.3	2.1	.562
21	Cameroon	5.3	52.8	71.2	37.5	71.3	76.4	3365	9.6	2.7	.556

Source: col. 1,2,3,4,5,6,7,8,10 and 11 - Human Resource Development Report 2018, UNDP

Source: 9, <https://www.indexmundi.com>, * <https://knoema.com>

Definition of variables

Death Rate: The ratio of deaths to the population of a particular area or during a particular period of time, usually calculated as the number of deaths per one thousand people per year.

Fertility Rate: By fertility rate, we mean the number of live births in women over a specific length of time. Fertility rate is generally expressed as the number of births per 1,000 women aged 15 to 44 in a calendar year.

Infant Mortality Rate: The infant mortality rate is the number of deaths under one year of age occurring among the live births in a given geographical area during a given year, per 1,000 live births occurring among the population of the given geographical area during the same year.

Adult Literacy Rate: Adult literacy rate is the percentage of people ages 15 and above who can both read and write with understanding a short simple statement about their everyday life.

GDP per-capita: The formula is GDP divided by population, or GDP/Population. If you're looking at just one point in time in one country, then you can use regular, "nominal" GDP divided by the current population. 1 "Nominal" means GDP per capita is measured in current dollars.

Crude death rate: The crude death rate is the number of deaths occurring among the population of a given geographical area during a given year, per 1,000 mid-year total population of the given geographical area during the same year.

Population Growth Rate: Annual population growth rate for year t is the exponential rate of growth of midyear population from year (t-1) to t, expressed as a percentage. Here, population is based on the de facto definition of population which counts all residents regardless of legal status of citizenship except refugees not permanently settled in the country.

Human Development Index

Definition: The Human Development Index (HDI) is a statistical tool used to measure a country's overall achievement in its social and economic dimensions. The social and economic dimensions of a country are based on the health of people, their level of education attainment and their standard of living.

Description: Pakistani economist Mahbub ul Haq created HDI in 1990 which was further used to measure the country's development by the United Nations Development Program (UNDP). Calculation of the index combines four major indicators: life expectancy for health, expected years of schooling, mean of years of schooling for education and Gross National Income per capita for standard of living. Every year UNDP ranks countries based on the HDI report released in their annual report. HDI is one of the best tools to keep track of the level of development of a country, as it combines all major social and economic indicators that are responsible for economic development.



Results of bi-variate regression:

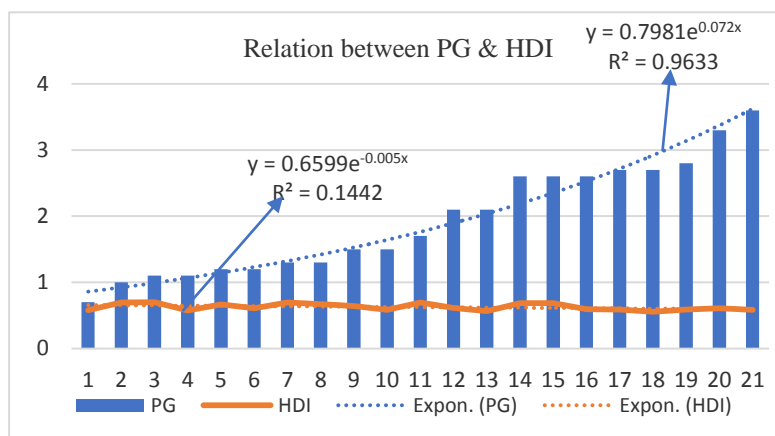
Dependent factor	Independent factors	R	R ²	S.E. of Estimate	Constant	ANOVA Sig.	β
HDI	PG	0.332	0.110	0.04978	0.666	0.141	-0.332

The result shows that, HDI of nations is negatively co-related with their population growth rate. However, this co-relation is not significant which may be due to the existence of many other factors of HDI like distribution and social-economic planning.

Therefore, at a given state of planning and distribution a nation can improve its human development index by curbing the size of population. Now the question arises, how can we achieve our expected level of population? We may search the

answer of this question through multivariate regression of Population growth on its **seven** independent factors.

Result of Multi-variate regression:



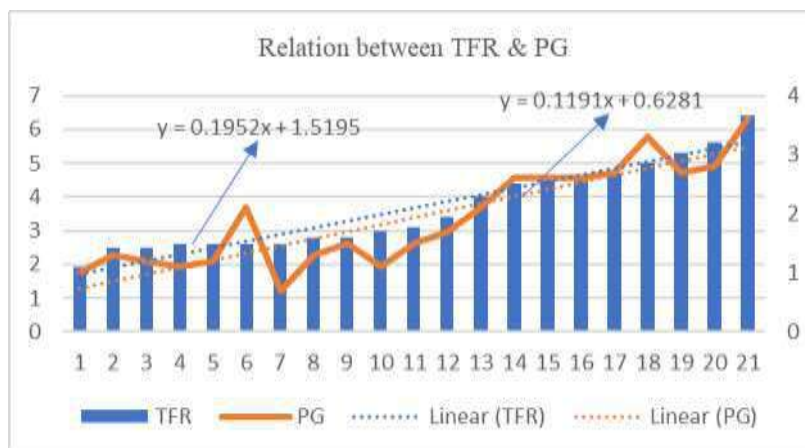
Dependent variable	R	R ²	S.E	Cons.	ANOVA Sig.	β _{TFR}	β _{IMR}	β _{PLBPL}	β _{ALR}	β _{FLR}	β _{GDP}	β _{CDR}
PG	.948	.900	.3314	-1.178	0.000	1.130	-0.064	-0.162	-0.151	.202	.107	.056
Co-efficient Significant						0.000	0.687	0.284	0.515	.462	.341	.657

The result shows that, the Total Fertility rate is the most influencing and significant factor of population growth. The β- Coefficient of it is highest and positive i.e., 1.130. This means the population growth and women fertility rate are significantly correlated. If fertility rate increases then population growth rate also increases. Among all seven factors, it is the only significant factor (at 95% level of significant), because the P-value of it is 0.000 < 0.05.

It should be noted here that, somebody may have the idea that, the decrease in death rate due to the development in medical sciences plays an important role in population growth. But the study shows, the estimated crude death rate is an insignificant factor of population growth (since it's P-value is 0.657 > 0.05). Therefore, the idea is not

true for developing world. The role of other five factors is also insignificant for population growth. Thus, to reduce population pressure a nation (particularly developing country), should take care against high rate of women fertility first. To initiate any such social programme we need to concentrate on the circumstantial causes of high fertility. For this purpose, the study has chosen six most probable socio-economic factors of fertility rate; like Infant Mortality Rate, size of population below poverty line, Labour force participation rate of women, Adult literacy rate, Female literacy rate and per-capita GDP.

The following table displays the result of bi-variate regression of six independent factors on 'Total fertility rate' as independent factor.



Results of bi-variate regression:

Dependent factor	Independent factors	R	R ²	S.E. of Estimate	Constant	ANOVA Sig.	β
TFR	IMR	0.592	0.350	1.04364	1.697	0.005	0.592
TFR	PLBPL	0.533	0.284	1.09571	2.273	0.013	0.533
TFR	LFPR	0.203	0.041	1.26778	3.024	0.378	0.203
TFR	ALR	0.216	0.047	1.26407	5.034	0.347	-0.216
TFR	FLR	0.503	0.253	1.11868	7.834	0.020	-0.503
TFR	GDPPC	0.196	0.038	1.26962	4.110	0.395	-0.196

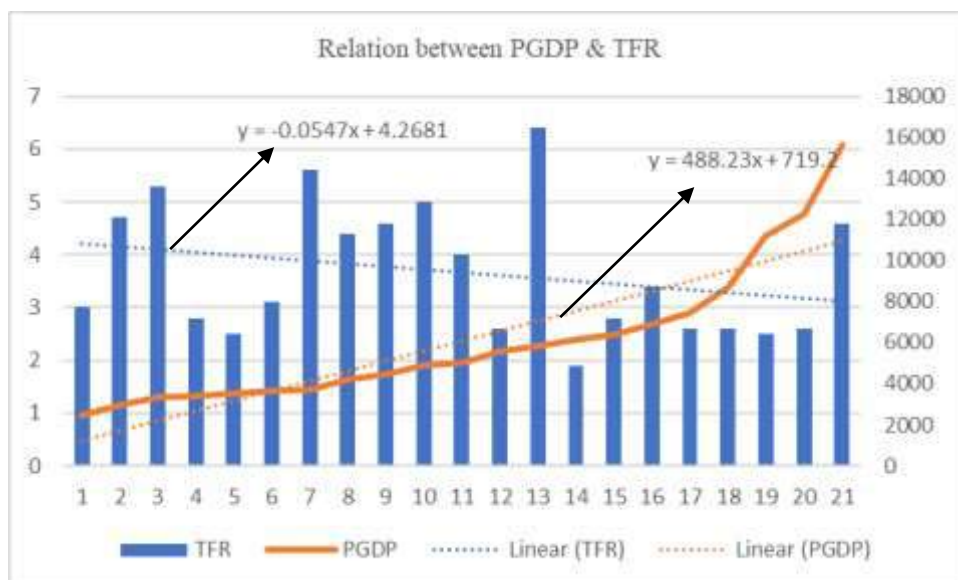
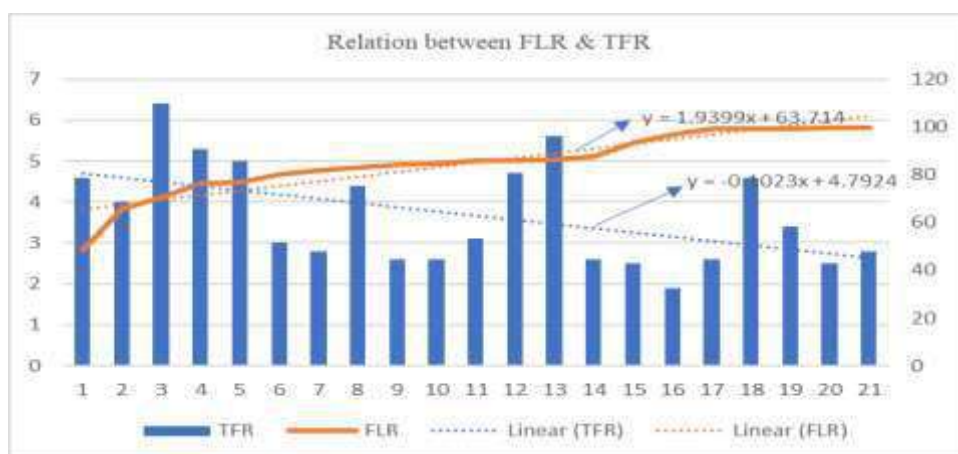
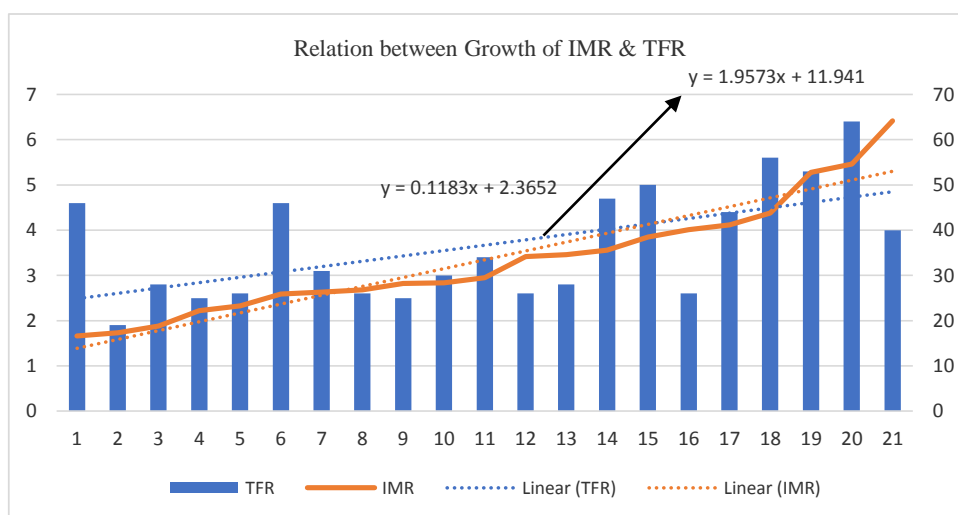
The table shows, the values of β - coefficient of Infant Mortality rate (IMR), Size of population below poverty line (PLBPL) and Women-Labour force participation rate (LFPR) are positive. So, these factors are positively co-related with high fertility of women. On the other hand, the factors like, Adult literacy rate (ALR), Female literacy rate (FLR) and Per-capita gross domestic product (GDPPC) of the nation are negatively co-related with fertility rate. But, among six factors only three are statistically significant. These are Infant Mortality rate; Population lies below poverty line and Female Literacy rate. An interesting result we see that, women labour force participation is positively co-related (though insignificantly) with fertility rate. This is perhaps because, in developing countries, most of the economic participation of women is in unorganized sectors like agriculture and other primary activities. Such employment may not improve their poverty condition at all. Here the impact of employment is extracted by the impact of poverty. According to mod value of β - coefficient of three significant factors, the influence of IMR is aggravated than PLBPL and FLR respectively. The positive co-relation of IMR and Fertility rate means

there may have high uncertainty in child health which enforces people to take more chance in family size. It is due to the legacy of mal-distribution of the fruits of modern medical science development. The positive co-relation of Fertility rate and size of population below poverty line indicates that, people with low income try to secure their future life through increasing economic hands. This tendency may also increase the problem of child labour in the society. Lastly, the negative co-relation between Fertility rate and Female literacy rate implies that, the society in which female literacy is low then fertility rate is high. This is because, due to illiteracy, female's say about family planning and against child marriage is very low. Therefore, female illiteracy plays twofold role in case of fertility. One, through Child marriage it provides a long reproductive age and two it curbs the decision-making scope of women against high fertility. Here the family size is determined not considering women health or national condition but for fulfilment of their future family needs. Further, the society is move towards the evil of child labour. The Multi variate regression of six factors also shows more or less same result which is given in following table.

Result of Multi-variate regression:

Dependent variable	R	R ²	S.E	Cons.	Sig.	β_{LFFP}	β_{IMR}	β_{PLBPL}	β_{ALR}	β_{FLR}	β_{GDPPC}
TFP	0.812	0.660	0.8792	8.155	0.009	0.061	0.033	0.311	0.637	-1.095	-0.252

The following three figures show the relationship of total fertility rate with its three significant factors IMR, FLR and PGDP.

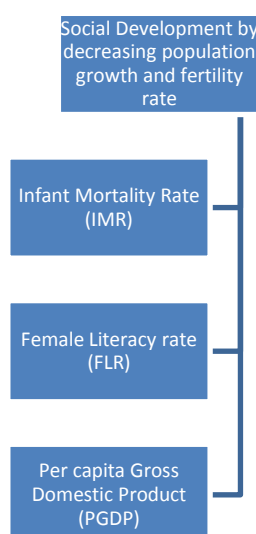




5. CONCLUSION

The decline in fertility levels, reinforced by continued declines in mortality levels, is producing fundamental changes in the age structure of the population of most societies, most notably record increases in the proportion and number of elderly persons, including a growing number of very elderly persons. This growing tendency of dependents and absolute number of populations curb the scope for development activities. Therefore, to maintain a continuous human development strategy in a developing society we must have to control on our birth rate. From the study it is shown that, birth rate

or fertility rate may decrease if we can increase female education level as well as minimum economic and health security of the family. Illiteracy and uncertainty (in family and economic life) are the two main obstacles of human development in less developed and developing countries.



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A STUDY ABOUT EMPLOYMENT STATUS OF BTECH GRADUATES (2018-20) IN KERALA

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ABSTRACT

A study was conducted to know the current employment status of BTech graduates in Kerala. As there are 166 engineering colleges in Kerala and nearly one lakh students appear for the engineering entrance examination, it is very important to assess the quality of engineering education. In this study, it was found that nearly 75% of the graduates are unemployed (graduated from 2018-20) and also majority of the people who are employed are not working in their core fields. People are also unaware of the schemes that are offered by the government to eradicate unemployment. Due to the covid-19 pandemic, among 100 graduates nearly 73% of the graduates lost their job and 17.9% of them were able to continue the same job. About 9% got a new job & 3.8 % of the graduates experienced a salary cut which illustrates the effect this pandemic has created an impact on the economic scenario of the state

1. INTRODUCTION

1.1 Importance of Employment

Healthy means being in a state of physical, mental, and social wellbeing. In other words, we can say being healthy means having a job. Employment plays an important role in sustaining individual and societal wellbeing. The development of a nation can be conjured up easily by analyzing the employment rate. At the individual level, employment provides the necessary financial freedom and the power to take part in the decision-making process of society. It is important to impart financial freedom for all. All revolutions led by the proletariats over the world points to that conclusion. It also leads to economic and social development. Employment provides a chance to feel secure. According to Manikandan Viswanathan(LinkedIn, 2018) employment should be generated in rural areas for seasonal unemployed people. The government must take sufficient measures to ensure this.

1.2 Youth in Kerala

Kerala is the state with the highest literacy rate in all of India. So, It is of great importance to note what the youth of Kerala is up to. The fruits of this glorified information era are being reaped mostly by our youth. While most are being misguided, some of them are positively exploiting this new portal opened before them. Kerala youths have always been politically active. All the major political parties nurture their student federations. A study conducted by the the Centre for Development Studies

(CDS) Trivandrum(n.d), showed that the flow of Keralites to abroad continues, among many

reasons as better living conditions, different experiences, etc. The main reason is the state's inability to provide suitable jobs for the increasing number of educated youths.

The number of youth working in the industrial sector is also high. A quick look around the industries in Kerala and we can find underpaid youths, both educated and uneducated. The reason for this can be found in the population increase, not on par with the employment opportunities

1.3 Engineering Education in Kerala

The first engineering college formally came into existence on July 3, 1939, in Thiruvananthapuram. At that time, the college had an intake of 21 students for every three courses: - mechanical, civil, and electrical engineering. This college is now the college of engineering Trivandrum (CET) also acting as the headquarters of Kerala technological university. According to information provided by Kerala Engineering Architecture Medical Entrance Exam (n.d) currently, about 166 engineering colleges are offering a wide range of courses. Every branch has got its importance in the development process and balancing of society. Considering the statistics of 2020 about 1,10,250 students appeared for the Kerala engineering entrance exam (THE HINDU, JULY 16, 2020.). It depicts the high demand for engineering courses in the states. There are several universities like Mahatma Gandhi University, CUSAT, Kerala university, etc. but after 2014 the government of Kerala regularized the engineering system by bringing all the engineering colleges under one university called "APJ Abdul Kalam Technological University". The university has



currently a pass percentage of 50% in Electrical and Electronics engineering, 49% in Electronics and Communication, 47% in Computer science engineering, and finally 38% in Mechanical engineering. (THE TIMES OF INDIA, September 19, 2020)

2. RESEARCH METHODOLOGIES

2.1 Method: Online Study Via Google Form

A detailed questionnaire consisting of about 13 questions was sent to BTech graduates who graduated after 2018 via various social media platforms like Facebook, WhatsApp, and Instagram. The questionnaire was in the format of a google form in which the candidate can either fill their responses or write a short description regarding their answer. The study was taken among 100 BTech graduates and the study included both personal and professional questions. The study also analyzed the impact of Covid-19 on the graduates.

2.2 Sample Group Selected

100 BTech graduates who graduated from different universities were considered as a sample group. These selected individuals have graduated under different disciplines under BTech like Mechanical engineering, Civil engineering, Computer science, Electrical and Electronics Engineering, Biotechnology, Electrical and communication engineering, etc, and were common between the age group of 20-25. 67.5% of the people who had taken the study through social media platforms are males and the rest females.

2.3 Study Questions

The following questions were asked to the graduates.

1. Name
2. Age
3. Sex
4. Marital status
5. Trade-in BTech
6. Employment status
7. Whether taken any additional course after BTech
8. Year of graduation
9. If unemployed how long have you been unemployed
10. If employed whether working on the core field
11. If not working in the core field then in which field are you working
12. Does covid-19 created an impact on you of the following
13. Suggestions to eradicate unemployment from the state.

3. RESEARCH ANALYSIS

3.1 General Overview About Study

This study was attended by 100 people who have been graduated from different universities (2018-20). The graduates were from disciplines like mechanical engineering, electrical and electronics engineering, electrical and communication engineering, civil engineering, and biotechnology. The majority of the graduates opted for mechanical engineering their trade and the least was observed in biotechnology. To be precise about 75 % of the graduates were unemployed and most of them were graduated in 2020 (70.8%) followed by 2019 and 2018. The majority of the graduates opted for a course less than three months followed by courses for less than one month, while 10.9% of the graduates opted for masters after graduation. When considering the graduates 45% of them are working on a field related to their core subject. And from those who are not working in their core field about 29.2% of them are working in the IT sector, 14.6% in management, and 8.3% in entrepreneurship. Considering the effects of Covid-19 about 73% of the graduates lost their job and about 9% of them got a new job. Moreover, 17.9 % of the graduates were able to continue their job and the rest experienced a salary cut-off.

3.2 Male and Female Unemployment Status.

Out of 79 males who participated in the study about 17 of them are employed and 62 of them are unemployed. When considering the female graduates about out of 25, about 8 are employed and 17 are unemployed.

Table 3.2 Male and Female Unemployment Status

MALE GRADUATES: 79	FEMALE GRADUATES: 25
EMPLOYED: 17 UNEMPLOYED: 62	EMPLOYED: 8 UNEMPLOYED 17

3.3 Most Unemployed Trade-in BTech.

The majority of the graduates who have cooperated with the study opted for mechanical engineering as their trade-in B. Tech. Others mainly opted for computer science, electrical and communication engineering, civil engineering, and biotechnology. From the study, it was evident that mechanical engineering was the trade of most unemployed graduates followed by civil engineering and electrical engineering. The most employed trade-in BTech was computer science engineering depicting the growth of IT sector nowadays.

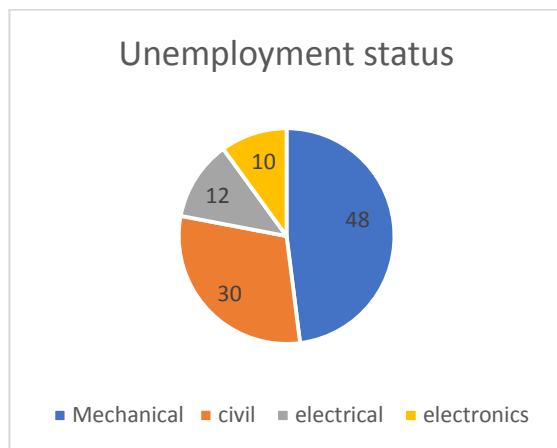


Figure 3.3 Chart illustrating the most unemployed trade-in BTech.

3.4 Impact of Covid-19

In September 2020, India saw an unemployment rate of over six percent. This was a significant improvement from the previous months. A damaging impact on an economy as large as India's caused due to a total lockdown was imminent. Unemployment went up to 24 percent on May 17, 2020. This was possibly a result of a decrease in demand as well as the disruption of the workforce faced by companies. Furthermore, this caused a loss of more than nine percent for the Indian economy that month. Between February and April 2020, the share of households that experienced a fall in income shot up to nearly 46 percent. Inflation rates on goods and services including food products and fuel were expected to rise later this year. Social distancing resulted in job losses, specifically those of Indian society's lower economic strata. Several households terminated domestic help services – essentially an unorganized monthly-paying job. Most Indians spent a large amount of time engaging in household chores themselves, making it the most widely practiced lockdown activity.

Considering the effects caused on the graduates in the state of Kerala, COVID-19 created an impact on about 73.11% of people to lose their jobs. On the other hand, due to the unavailability of people to work about 9% of the sample space got a new job concerning this pandemic. Furthermore, about 17.9% of the graduates were able to continue their jobs by "work from home" system and about 3.8% of people experienced a salary cut during this pandemic.

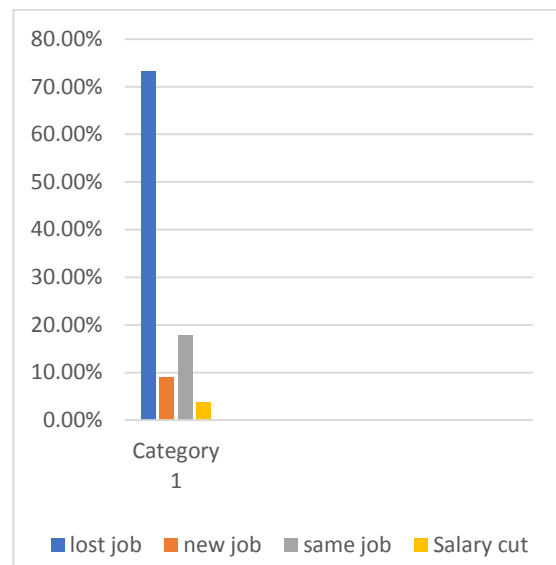


Figure 3.4 Effect of Covid-19

3.5 PRIME MINISTER'S SCHEMES FOR ERADICATING UNEMPLOYMENT

The Pradhan Mantri Rojgar Protsahan Yojana (PMRPY) scheme was launched on 9th August 2016 to provide incentives to employers for the generation of new employment, this scheme had dual benefit where, on the one hand, the employer is incentivized for increasing the employment base of workers in the establishment, and on the other hand, these workers will have access to social security benefits of the organized sector.

The Ministry is implementing the National Career Service (NCS) Project as a Mission Mode Project for the transformation of the National Employment Service to provide a variety of employment-related services like career counselling, vocational guidance, information on skill development courses, apprenticeship, internships, etc. The NCS Portal (www.ncs.gov.in) was dedicated to the Nation by the Hon'ble Prime Minister of India on 20.07.2015. (Ministry of Labour and Employment, 2020)

4. CONCLUSION AND RECOMMENDATION

4.1 Conclusion

The problem of unemployment is rising but still many industries are facing the problem of a skilled candidate for their company. There is a boom of software companies, Outsourcing companies in Kerala, but still facing the problem of unemployment. The study was taken via google form ultimately gave an overall image of the recent BTech graduate in Kerala state. The study suggested that the unemployment crisis is very severe and is basically due to a lack of a proper education system. It also suggested the lack of skilled training and also proper



planning by government authorities. This study also illustrated the impact of covid-19 on graduates.

4.2 Recommendation

The participants of the study suggested some measures to eradicate unemployment, initially they suggest improving job opportunities and also to promote the growth of start-up companies. Skill-oriented education emphasized more practical field training. Some suggested the importance of awareness among their parents about quality education and the unemployment crisis. Furthermore, a major proportion also suggested work-based learning and implementation of the skill development centre. The government should keep a strict watch on the education system and try to implement new ways to generate a skilled labour force. The government should select a committee to look after the schools and universities. The syllabus taught is of less use to the industries so the education should be as per the current requirements of the industries. Before completing the education, practical knowledge should be given.

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A STUDY ON EVALUATION OF EFFECTIVENESS OF VISUAL MERCHANDISING WITH SPECIAL REFERENCE IN BIG BAZAAR TO COIMBATORE CITY

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ABSTRACT

The study explores the effect of visual merchandising and its impact of impulse buying behavior of consumer towards a retail store based on how they attracted by window display and stores in mannequins form. Visual merchandising is the presentation of merchandising as well as store in order to attract customer. The main purpose for the study is to find out the influence of visual merchandising. The study helps to analyses the impact of various variable in impulse buying behavior of consumers. To identify the strategies sed by retailers to intensify their visual merchandising and to give a plan for further improvements.

KEYWORDS: Visual merchandising, Impulse buying behavior, Window display.

INTRODUCTION

Visual Merchandising is to make a shopper a stopper and a “walk-in” rather than a “walk-by”. It is selling by showing and promoting. It is arranging items for display. It is the coordination of all physical elements of a business to project a right image. In brief it is “silent selling.” Interior Design is the décor of the store, the props and placement of merchandise. Visual Merchandising includes not only the products on sale, but also the décor of your outfit, your shop flooring and ceilings, your restrooms and trial rooms, staff uniforms, the colour of lipstick worn by female personnel, and the tie-knots of male personnel.

STATEMENT OF PROBLEM

Visual displays of the store are intended to charges the minds of consumer towards buying behavior. But in real time it is always a question whether the visual display and the amount spent on visual displays is really effective. Hence the study was undertaken to analyses their effectiveness in team of conversion of attraction to interest, interest to desire

and desire to action. By understanding this behavior of shoppers, marketers can develop unique market offerings designed specifically to attract the patronage of consumes within the important segment. The main problem is that whether people are buying the product what they sell in malls. In context to India very little research is done for the subject. These studies to resolve also provide understanding to retailers about which types of visual marketing that can influence consumer’s compulsion ordering behaviours.

SCOPE OF THE STUDY

- The scope of the study is to be identify consumers approach towards visual display in a retail outlet.
- Identifying customers display expectation in a denim store.

OBJECTIVES OF THE STUDY

- To find out the impact of visual merchandising on impulse buying behavior.



- To determine the attributes of visual merchandising of the store.
- To know the customers opinion of visual displays considered during purchase.
- To explore the impact of layout in a retail store on customer buying behavior.

TOOLS USED FOR ANALYSIS

- Percentage analysis
- Likert scale
- Ranking analysis

LIMITATION OF STUDY

In spite of detailed analysis made in the present study, this study is not free from the following limitation.

- The study is purely based on the views of 150 respondents only.
- The study has been confined to Coimbatore city only. So, the result may not be applicable to other area.

REVIEW OF LITERATRE

Mahalaxmi, Akila(2017), The object was to find out in what way window display influences the impulse buying behavior of consumer in retail outlet. The study was convenient sample methods and non-probability technique, data was collected from 150 respondents though questionnaire and tool used to analyzed were Chi square test. Majority respondents were influenced by the promotional offerings of the product.

Murali, Karthikeyan(2017), the object of study was dimensions of visual merchandising and its impact on impulse buying and patronage intention of apparel customers. The researcher has adopted non probabilistic purposive sampling by adopting

descriptive type of research and Tools used were reliability statistics, multiple regression, pearson correlation ad factor analysis. Brand building via media is one of the important tool in visual merchandising.

Gautam Rudra Shaki Anwar Siddique, Rumna Bhattacharaya(2017), Visual Merchandising is to attract, engage, and motivate the customer towards making a purchase. The study was exploratory and descriptive research designs have been convenience sampling and non-probability sampling technique, data was collected from 72 respondents with help of questionnaire. Visual merchandising plays a significant role in apparel purchase decision of the customer.

DATA ANALYSIS AND INTERPRETATION

In this chapter the analysis and interpretation of “A Study on Evaluation of Effectiveness of Visual Merchandising with Special Reference in Big Bazaar to Coimbatore city”, is presented based on the opinion of sample of 120 respondents selected from Coimbatore city through a questionnaire containing 16 questions. These were analyzed through three different tools and they are as follows,

- Simple percentage analysis
- Likert analysis
- Rank correlation

SIMPLE PERCENTAGE ANALYSIS

Simple percentage analysis is the method to represent raw streams of data as a percentage for better understanding of collected data. Percentage analysis is applied to create a contingency table from the frequency distribution and represent the collected data for better understanding.

FORMULA:

$$\text{Percentage} = \frac{\text{Number of respondents}}{\text{Total no. of respondents}} \times 100$$



TABLE 1
TABLE SHOWING THE AGE OF THE RESPONDENTS

S. NO.	AGE	NO. OF RESPONDENTS	PERCENTAGE
1	Below 20 years	23	20.72
2	21 years – 40 years	45	40.54
3	41 years – 60 years	33	29.72
4	Above 60 years	10	9.009
	TOTAL	111	100

(Source: Primary data)

INTERPRETATION

The above table shows that out of total 111 respondents, 20.72% of the respondents are of below 20 years, 40.54% of the respondents are of between the age 21 years – 40 years, 29.72% of the respondents are

of between the age 41 years – 60 years and 9.009% of the respondents are above 60 years.

Majority, 40.54% of the respondents are of between the Age 21 years – 40 years.

TABLE 2
TABLE SHOWING THE GENDER OF THE RESPONDENTS

S.NO	GENDER	NO OF RESPONDENTS	PERCENTAGE
1.	MALE	51	45.945
2.	FEMALE	60	54.054
	TOTAL	111	100

(Source: Primary data)

INTERPRETATION

The above table shows that out of total 111 respondents, 45.945% of the respondents are male and 54.054% of the respondents are female.

Majority, 54.054% of the respondents are female.

TABLE 3
TABLE SHOWING THE OCCUPATION OF THE RESPONDENTS

S. NO.	OCCUPATION	NO. OF RESPONDENTS	PERCENTAGE
1	Employee	32	28.82
2	Business	18	16.21
3	Professional	16	14.41
4	Other	45	40.54
	TOTAL	111	100

(Source: Primary data)

INTERPRETATION

The above table shows that out of total 111 respondents, 28.82% of the respondents are employees, 16.21% of the respondents are engaged in business, 14.41% of the respondents are professionals and 40.54% are engaged in other activities.

Majority, 40.54% are engaged in other activities.

LIKERT SCALE

Likert scales are the most broadly used method for scaling responses in research studies. Research questions that ask you to indicate your level of agreement, from strongly agree or highly satisfied to strongly disagree or highly dissatisfied, use the likert scale. In Likert scale method, a person's attitude is measured by combining (additional or averaging) their responses across all items.



FORMULA

$$\text{Likert scale} = \frac{\sum fx}{\text{Total number of respondents}}$$

Where,

F = Number of respondents

X = Likert scale value

$\sum fx$ = Total score

Mid value,

Mid-value indicates the middle most value of the Likert scale.

TABLE 4

TABLE SHOWING THE SATISFACTION LEVEL OF RESPONDENTS TOWARDS THE COLOR OF THE STORE

S. NO.	SATISFACTION LEVEL	NO. OF RESPONDENTS (F)	LIKERT VALUE (X)	TOTAL (FX)
1	Highly satisfied	14	5	70
2	Satisfied	22	4	88
3	Neutral	59	3	177
4	Dissatisfied	11	2	22
5	Highly dissatisfied	5	1	5
	TOTAL	111		362

$$\begin{aligned} \text{Likert value} &= \sum fx / \text{No. of. Respondents} \\ &= 362/111 \\ &= 3.26 \end{aligned}$$

INTERPRETATION: Likert scale value is 3.26 which is greater than mid value. Therefore the respondents are having satisfied level towards colours.

TABLE 5

TABLE SHOWING THE SATISFACTION LEVEL OF RESPONDENTS TOWARDS FIXTURE AND FITTINGS

S. NO.	SATISFACTION LEVEL	NO. OF RESPONDENTS (F)	LIKERT VALUE (X)	TOTAL (FX)
1	Highly satisfied	15	5	75
2	Satisfied	43	4	172
3	Neutral	25	3	75
4	Dissatisfied	24	2	48
5	Highly dissatisfied	4	1	4
	TOTAL	111		370

$$\begin{aligned} \text{Likert value} &= \sum fx / \text{No. of. Respondents} \\ &= 370/111 \\ &= 3.33 \end{aligned}$$

INTERPRETATION

Likert scale value is 3.33 greater than mid value. Therefore the respondents are satisfied with furniture and fittings.

RANK CORRELATION

A rank analysis is any of several statistics that measure an ordinal association, the relationship



between ranking of different ordinal variables or different ranking of the same variables, where a “ranking” is the assignment of the labels “first”, “second”, “third”, etc., To different observation of a particular variable. A rank analysis measures of

similarity between two rankings, and can be used to assess the significance of the relation between them. It is not necessarily a total order of object because two different objects can have the same ranking. The ranking themselves are totally ordered.

TABLE 6
TABLE SHOWING THE INSIDE FACTORS INFLUENCE YOU BUYING DECISION IN THE STORE

S.NO	CATEGORIES	RANK 1	RANK 2	RANK 3	RANK 4	RANK 5	RANK 6	TOTAL	RANK
1	Locating product	23(6)	14(5)	26(4)	15(3)	13(2)	20(1)	403	3
2	Signs, graphics	16(6)	10(5)	16(4)	25(3)	18(2)	26(1)	347	5
3	Lighting	24((6)	18(5)	16(4)	11(3)	20(2)	22(1)	393	4
4	Music	25(6)	21(5)	20(4)	10(3)	14(2)	21(1)	414	2
5	Fragrance	10(6)	13(5)	11(4)	30(3)	33(2)	14(1)	339	6
6	Colours	13(6)	35(5)	22(4)	21(3)	12(2)	8(1)	436	1

(Source: Primary data)

INTERPRETATION

The above table shows that out of total 110 respondents, colors has ranked 1st, music has ranked 2nd, locating product has ranked 3rd, lighting has ranked 4th, signs, graphics has 5th, fragrance has ranked 6th.

Majority, respondents are satisfied with the colours in big bazaar.

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

- From the study it was found the majority of 40.54% of the respondents are of between the Age 21 years – 40 years.
- From the study it was found the majority of 54.054% of the respondents are female.
- From the study it was found the majority of 40.54% are engaged in other activities.
- From the study it was found the majority of 40.54% are engaged in other activities.
- From the study it was found the majority of 31.53% of the respondents have post-graduation.
- From the study it was found the majority of 35.13% of the respondents are earning Rs.50,000-1,00,000.
- From the study it was found the majority of 35.13% visit once in 15 days.
- From the study it was found the majority of 27.03% are aware through friends and relatives.
- From the study it was found the majority of 34.23 % are preferring accessories.

- From the study it was found the majority of 39.64% are neutral.

LIKERT ANALYSIS

- From the study it was found the majority of the respondents are highly satisfied above the Atmospherics, light, music, window display, and color in the factors of the store.

RANK ANALYSIS

Factors influence buying decisions in the store

- Respondents are satisfied with the colours and ranked as I.

Features/ aspects that encourage purchase in big bazaar

- Respondents are satisfied with the Quality goods and ranked I.

SUGGESTION

On the basis of finding of the study, the following suggestions have been given

- Most of the customers are visiting store only for entertainment purposes.
- Graphics and signage are cost effective and efficient tools for delivering a message or inform the customer about the product available in the department store.
- The managers can pay special attention to make attractive environment in the store premises and make action to control the rush condition.
- The color plays a vital role in creating a positive shopping experience. Hence,



retailers should be careful at the time of selecting the color scheme

- Majority of customers respond to the lighting more positively.

CONCLUSION

This study has revealed usefulness and effectiveness of visual merchandising in understanding consumers' buying decision based on the impact of visual merchandising. The main objective of this research was to identify the visual merchandising factors that impact store image and further examining the relationship of the identified independent variables of store layout and design, lighting, colors, mannequin, window display, promotional signage, product presentation and in-store displays with the dependent variable that is store image and purchase intention. This study discloses the expediency of visual merchandising and understand the consumers' impulse buying behavior.

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PHILOSOPHICAL FOUNDATIONS OF LINGUISTIC REFLECTION OF THE WORLD

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DISCUSSION

In the textual and philosophical paradigm of language, the understanding of 'self' and the understanding of 'other' are closely related to the perception of subject and object in philosophy. The contrast between subject and object in philosophy applies to all its branches, but this is especially important in epistemology: the subject of knowledge is man, and the object of knowledge is the world around him. Objective information is information that, in the subject's opinion, directly reflects the properties of the object, and subjective information comes only from the subject's consciousness. Some philosophical concepts believe that all information in the subject's mind is subjective (solipsism, Kant's theory), Plato considers most of the information subjective, but it is related to the object and can be mainly objective, some concepts (empiricism, positivism, rationalism) based and objective view.

The emergence of philosophy is the first attempt by mythological consciousness to objectively explain the world without resorting to animism. The first attempts to determine the cause-and-effect relationship also exist in myth, but myth does not separate the natural world from the human world, in fact these two worlds are incompatible. The first attempts to understand the world as a chain of cause-and-effect relationships were made in the form of describing the actions of different characters who were heroes, people, at the bottom of the mythological consciousness. Moreover, the mythological consciousness began to go backwards as knowledge about the visible and perceived world expanded.

Mythological consciousness is distinguished by animism and hylozoism, i.e., attempts to find an explanation for all natural phenomena arising from their living essence. Weather events are perceived as quarrels of the gods or their reconciliation, various cataclysms are perceived as a result of the actions of people who angered the gods, and so on. Moreover, the mythological consciousness, as a rule, sees a primordial causal relationship without trying to look

for several different causes for the same reasons. In the mythological world, man is dependent, submissive, and in practice has no free will.

The emergence of philosophy is associated with ancient Greece: a period known as the "Greek miracle". This term refers to the period in the history of the country when culture, science and philosophy suddenly began to develop rapidly in politics for no apparent reason. The most effective environment for the development of philosophy turned out to be a policy adopted by democratic governance - in which all ideas were discussed together by the citizens of politics and there was an opportunity to defend and debate their views.

The first philosophers - the "wise men" - were not experts in any particular science: they had the ability to speak and write on any subject, because different sciences were a kind of synthesis. The philosopher was interested in the structure of the universe in general: for example, the early ancient philosophers tried to answer the question of the origin of everything - fire, air or water, to know matter, to answer important social and cultural questions. Philosophy itself was formed as an independent study only in the Enlightenment: a person who had previously considered himself a philosopher could in one way or another come to different philosophical concepts by dealing with other sciences and generalizing their experiences.

Sophia is the understanding of philosophy as wisdom, philosophy as a wise prophet. Episteme is the acceptance of philosophical knowledge as a way of knowing the world and answering all epistemological questions. Techné is the ability and skill to accept philosophy as an art, to study the world, and to make laws. Philosophical knowledge includes ontology (the science of existence), gnoseology (the science of the study of knowledge), epistemology (the science of knowledge), and partial semiotics (the science of symptoms).

The acceptance of one person as another is based on belonging to one of two opposing paradigms: scientism or anti-scientism. These two



terms refer to the opposite tendencies in philosophy: the recognition of science as the basic and all-encompassing way of knowing (scientism) and the such rejection of science (anti-scientism). In the second half of the twentieth century, Scientism prevailed, during which time positivists emerged who called for the analysis of what was given only in direct experience. anti-scientism is clearly manifested in early Christian philosophy (Tertullian - "I believe because it is nonsense") and in the late Middle Ages (Nicholas of Cusa's "About learned ignorance" treatise), where knowledge is the opposite of faith: knowledge cannot cover everything, but faith is able to do this.

In the ancient world, philosophy was understood as the "science of all sciences" and generalized and combined their experiences. In the modern world, when a philosopher cannot physically gather all the knowledge of all the sciences, philosophy plays the role of generalizing personal experience. Man's philosophical understanding speaks of the role of the writer's human experience in the concept he creates: the philosopher is not 100% objective, but he must not achieve this goal: his concept is as interesting as the generalization and objectification of his experience.

In the classical strategy of philosophy, the philosopher seeks to find explanations for different phenomena of the world - the philosopher assumed that he thought of them as a "science of science" to combine different theories and ideas and develop some general ideas based on their analysis. In the future, philosophy acquired the value of a worldview and began to function as a concept that helped man explain the world for himself - it became a set of paradigms to explain the chosen world, rather than a single correct concept. Moreover, in post-classical strategy, the philosophical text is perceived as the opposite point of different texts and the point of intersection of the interactions of different events, which allowed us to think in categories of postmodernism and see various previous trends forming synergies in it.

Plato spoke of essences or patterns - the so-called ideal *eidos* and the things that exist among people are only vague copies of this *eidos*. *Eidos* are located in a "smart place" outside of our planet, and you have to leave the body (die or go into a trance) to see them. The debate about universals was also about the essence of things - but they were called universal and real (realists, for example, Anselm of Canterbury) or just names (nominalists, for example, the Champagne Carpet).

Originally, the word "metaphysics" was referred to as Aristotle's works on existence and was conveyed by the librarian after the treatise "meta" - "physics". Later, metaphysics began to call for various theories that implied a transcendental explanation of reality, involving the interference of

"higher" beings. The closure of metaphysics should therefore be seen as an achievement of science in the New Age, as many events that had no previous explanation received a sound scientific explanation and ceased to be a mystery to their participants.

Philosophical thought often finds expression in reality in very ugly forms that were not conceived by its creator.

Michel Foucault [1] talks about science as a set of typical situations. In such cases, a set of texts called speech, which is multiplied according to the situation, is used. We can talk about a set of medical speeches, a set of social speeches that arise as a result of the accumulation of certain situations. These common cases constitute the methodology of the humanities, in contrast to the empirically based sciences.

Martin Heidegger [1] says the truth is no secret: the information that is open to the world is what is known, what is understood. However, concealment is not possible without concealment: concealment is dialectically opposed to concealment. Concealment can only be worthwhile as opposed to concealment, so both sides are part of a whole - the truth.

As categories of the concept of world, space and time have always been in the field of philosophers' views, but initially they were considered important (e.g., ancient and medieval philosophers assumed that our ideas about time and space were based on objective truth), then they talked about their relativity (and Kant points out [1] that these are the two main categories that contribute to understanding the world and turning the noumenon into an event) to complete relativity in Hum and Berkeley solipsism (there is no space and time, they are determined by our consciousness).

Movement in philosophy is any change; change for the better is development. Development can be the result of creationism - creation, emanation - gradually decreasing radiation, preformism - change of forms and composition, emergentism - spontaneous emergence, evolutionism - the result of gradual change. Progress means progress, regression worsens. Agnosticism claims that the world cannot be known.

Solipsists (Berkeley, Hume [1]) argue that the world is fundamentally incomprehensible, and that everything man sensibly perceives is only a product of his consciousness. In the past, Kant spoke of the opposite of something similar and in the familiar form of something - noumenon and phenomenon, respectively. Even before that, Nikolai Kuzansky spoke of scientific ignorance - God can only be known by a lack of knowledge about him, by knowing about something that is not clear.

In philosophical understanding, which is reflected in the linguistic representation of the world, self-awareness is inextricably linked with self-



awareness as opposed to “not yourself,” that is, the perception of the boundary between oneself and the world around one.

The world is recognized on the basis of emotional experience and its objectification: empiricism assumes that we derive all knowledge from experience, rationalism relies on the human mind and its objectivity. The disadvantages of these currents are that perception can be disrupted under the influence of various factors; moreover, the individual may not have sufficient experience and knowledge to understand certain phenomena. John Locke was an empiricist who believed that man is born with a “clean board” and that everything in it is shaped by experience, while the rationalist Rene Descartes said, “I think, so I exist.” [1]

Aprior knowledge is something inherent in human birth, aposterior is acquired in the process of gaining experience. John Locke believed that a priori knowledge does not exist in man, his opponent Gottfried Leibniz considered that a priori knowledge exists. In modern science, there is a universal concept of language, which means that ideas about the world conditioned by language are similar in all people in general (N. Chomsky).

The linguistic shift is a phenomenon in twentieth-century philosophy that involves the study of philosophical phenomena from a linguistic point of view. This is Husserl’s [1] phenomenology, which refers to the ingenuity of the universe through metaphor, Wittgenstein’s theory based on the usual repetitive texts, Heidegger’s ideas [1] about the manifestation of truth through linguistic means. The second stage of the linguistic revolution in the middle of the twentieth century was a change in linguistics, in particular the emergence of Chomsky’s generative grammar, which explains the origin of language rather than ready-made phrases.

Language reflects reality not objectively, but through the prism of its categories: therefore, speakers of different languages see the world differently. This was first noticed by linguist Edward Sapir and fire safety engineer Benjamin Whorf [1] (the second came to study the language after he noticed that people were smoking quietly next to empty petrol barrels, as they say “empty” is more dangerous than filled ones). It has become customary to combine their independent but parallel work into a theory of linguistic relativity, according to which each language imposes a certain perception on its carrier of the universe. Speech theory applies to structuralism, which means that a person is bound not only by the coordinates of understanding a particular language, but also by a particular situation in which someone is giving a speech.

Kant [1] himself considered his theory of epistemology to be the equivalent of Copernicus’ coup in astronomy. Copernicus proved that the Earth revolves around the Sun, not the other way around,

Kant proved that our knowledge is a means of shaping and changing the world, not the other way around. In other words, Kant believed that people’s knowledge and experience shape the world and actively change it because our knowledge sees things around us, and noumenons - things on their own - cannot be radically known.

Classical empiricism implies that we assume that we abstract and generalize the emotional experience. Non-classical theories show that

a) knowledge cannot exist at all (agnosticism),

b) everything we know is limited by our perception (I. Kant),

c) what we see and perceive is the result of our imagination (Berkeley’s cross).

Kant believed that man is incapable of knowing anything: we can only know something limited by our own perception. Kant argued that man looks at the world through the spectacles of cosmic time: we only know what we can know. [1] We take anything as an event, but it remains a noumenon - it’s a spontaneous thing.

Truth means that information corresponds to objective truth; it is a category that connects ontology and epistemology. Heidegger [1] saw the truth as the interaction of hiding and not hiding - known and unknown data, solipsists assumed that the truth could not be known radically, because the whole visible world is a product of our consciousness. Plato could know the truth, but he believed it by separating the soul from the body and taking it to a “smart place”. Kant believed that the distortion of our ideas about the world because of a priori ideas was so great that the truth could not be known in principle.

Innate ideas are called a priori knowledge, which is inherent in human birth. John Locke believed that man has no a priori knowledge, his rival Gottfried Leibniz [1] believed a priori knowledge. In modern science there is a universal concept of language (N. Chomsky) [2], the concepts of the world conditioned by language, in general, mean that they are similar for all people.

Man is antinomic by nature: there is an insoluble contradiction between the sinful underground and the higher spiritual aspirations. These two beginnings fight like a guardian angel and a tempting demon. That is why Dostoevsky’s heroes are characterized by a dramatic change in nature.

Foucault’s speech [2] is the primary birth before the objectification of thought. Wittgenstein’s language games are reflected in the language of ideas about the world, and define these perceptions in linguistic terms. These two concepts have almost the same meaning, but for Foucault, speech is primarily a method of science, and Wittgenstein’s language game implies everyday knowledge.

Noam Chomsky is a modern man [1], linguist and politician who emphasized that there is a



certain universal language that is common to all mankind. At the present stage it is thought that this universal language is a system of affirmation and denial: so in no language can a word consisting only of consonants be pronounced, in any language a complex sentence can be made, and so on. This confirms that a person has a priori knowledge.

Family similarity is a feature of sign systems that are similar because of the similarity of the objects they reflect and their functionality. This means that languages are similar to each other because the worlds in which people exist are similar, games are similar to each other because they have the same functions in different societies, and so on. Thus, the character acquires meaning not as a result of itself, but as a reflection of certain things.

T. Kuhn called the paradigm a system of scientific knowledge about the world, which was relevant before another paradigm took its place.[1] The accumulation of knowledge and the gradual change of ideas lead to a change in the scientific paradigm. In Foucault's theory, the paradigm is equivalent to an episteme - a unit of knowledge, a system of ideas about the world.[1]

"The main problem of philosophy in the post-positivist era is the application of philosophical theories and concepts of our time (V. Dilthey, author of the theory of pragmatism, believes that all philosophical concepts are the same if they correspond to the subject who adheres to them); discusses the issue of knowing the world as a metaphor (John Lakoff), understanding the world through epistemology through linguistic and textual categories (Roland Bart). It also examines the issue of civilization (Arnold Toynbee), its development cycles, and the causes of change in civilized life (Lev Gumilev introduces the term "passion" to express leadership and aspiration for constructive change in the world and the main engine of civilization change).[1]

The human mind is the main subject of cognition, which objectifies knowledge about the world (rationalism), while at the same time concealing objective knowledge, incorporating into it its own categories and beliefs (Kant). The mind is the basic essence of man (Leibniz) and at the same time is the same organ as the other organs of the body (positivism in its extreme form, John Stewart Mill). [1] In general, the categories of consciousness are directly related to epistemology and epistemology in philosophy.

Nietzsche's words mean that man can decide and do everything himself. Nietzsche's idea of God's death is to argue with the ancient theory of destiny as a predetermined path that does not participate in the creation of mankind. Nietzsche believed that man decides his own destiny, decides for himself, creates himself. M. Heidegger interprets these words as the

beginning of a new era in which action and reaction are determined not by God but by man. [1]

Any speech is called text; in the categories of modern text criticism, it's not even a word, the key is to convey that character and a specific message. The text was studied by Roland Bart and Julia Kristeva as a point of intersection of references, quotations, and allusions to other texts [3]. Intertext is the intersection of several texts: for example, a reference to text in one text in another. The ability to interpret these tips and see the points of intersection is the task of modern science.

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THE METHOD OF JUDGING FROM THE VERSES OF THE QUR'AN IN THE TAFSIR OF MAHMUD ZAMAKHSHARI

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ABSTRACT

There are different approaches to the verses of the Qur'an in the four schools of jurisprudence and the two doctrinal doctrines of Ahl as-Sunnah wa'l-Jama'ah. Mahmud Al-Zamakhshari's al-Kashshaf, which contains these interpretations, tells us the differences between the sects regarding the ruling verses. In particular, Mahmud Al-Zamakhshari is known to have belonged to the Hanafi school of thought in accordance with the method of elucidating the ruling verses in his commentary. This article examines Al-Zamakhshari's interpretation of the Hanafi method of ruling.

KEYWORDS: *Fiqh, hadith, al-Al-Zamakhshari, al-Kashshaf, tafsir, usul al-fiqh, hanafi.*

INTRODUCTION

Mahmud al-Zamakhshari, who has become a leading scholar in various fields of Islamic science, is the author of several works on the science of jurisprudence. His commentary on Mukhtasari Quduri, one of the most authoritative books of the Hanafi school, is Sharh Mukhtasar al-Quduri fi furu' al-fiqh al-Hanafiyya, Manasik al-Hajj, dedicated to the pilgrimage, and Dalla an-nashid and ar-ra'id fi ilmi al-faroiz, Shaqaiq an-Nu'man fi haqaiq an-Nu'man "about the life and work of Abu Hanifa, "Mujam al-Hudud" on the law of had and punishment in Islam. He also wrote Ruus al-masail fi al-fiqh, a comparative analysis of the rulings of the Hanafi and Shafi'i schools. Al-Zamakhshari, who was well acquainted with Shafi'i jurisprudence, also wrote a work on the maturity of the Arabic language, Shafi' al-ay min kalam al-Shafi'i.

Al-Zamakhshari, who is also well-versed in the science of jurisprudence, has a unique method of ijtihad in illuminating the rulings in his commentary, al-Kashshaf.

PART OF THE TEXT

Mahmud Al-Zamakhshari was born in 467/1075 in the village of Zamakhshar in Khorezm. The scholar's full name is Abul Qasim Muhammad

ibn Umar ibn Muhammad ibn Ahmad Khorezmi Al-Zamakhshari and he belongs to the Hanafi school of jurisprudence [4: 343].

Mahmud Al-Zamakhshari nicknamed "Jarullah" (neighbor of Allah) because of his long stay was twice in Mecca between the status of Ibrahim and the water of Zam-zam. It was during this period that the scholar completed his work on the science of tafsir, al-Kashshaf.

The scholar studied tafsir, hadith, usul, fiqh, kalam, mantiq, philosophy and lexicography in Bukhara. After that, in Baghdad, he studied jurisprudence with the Hanafi jurist Hussein ibn Muhammad Al-Damaghani [7: 47].

THE SCIENCE OF JURISPRUDENCE IN THE TIME OF AL-ZAMAKHSHARI

The formation of sects ended in the fourth century AH, when Al-Zamakhshari was born, and the period of "taqlid" (imitation) began. In particular, there was a period in the Hanafi Madhhab when independent ijtihad was replaced by ijtihad on issues related to the madhhab. The fifth century AH, created by Al-Zamakhshari, dates back to the time when the Hanafi school of thought (preference for one ruling over another) was active in its methods and principles.



MAHMUD AL-ZAMAKHSHARI'S MADHAB OF JURISPRUDENCE

Abduhay Al-Laknawi considers Al-Zamakhshari to be one of the leading scholars of the Hanafi school [4: 343]. However, in al-Kashshaf, the scholar has given way to the views of other sects, and scholars have expressed differing views on his school of jurisprudence.

Evidence from those who emphasize belonging to the Hanafi school. The fact that Mahmud Al-Zamakhshari wrote a special work for Abu Hanifa's views, Shaqoiqu-n-Nu'man fi haqaiqu-n-Nu'man, shows that he had a high regard for Abu Hanifa. The scholar was also proud to belong to the Hanafi school and wrote the following poem:

وأُسند ديني وإعتقادي ومذهبي إلى حنفاء اختارهم
وحنافنا

حنيفية ادبائهم حنافية مذهبهم لا يبتغون الزعانفا

I rely on the Hanafis, who have chosen my religion, belief and sect as the Hanifs of Allah,

وأُكتمه كتمانته لي أسلم
أبيح الطلا وهو الشراب المحرم
أبيح لهم أكل الكلاب وهم هم
أبيح نكاح البنت والبنت تحرم
ثَقِيل حلولي بغِيض مجسم
يقولون تيس ليس يدري ويفهم
فما أحد من ألسن الناس يسلم

I did not state my sect when asked,
I keep it because keeping it is quieter for me,
If I say I am a Hanafi, they say,
I consider the nabiz¹ to be mubah, while it is haram.

If I say I am the owner, they say,
While I make it lawful to eat dog meat, it is (the dog) themselves.

If I say I am a chauffeur, they say,
While I am permissible to marry a girl, it is forbidden.

If I say I am Hanbali, they say,
I would be a critique of the sculpture,
making it difficult to be honest.

If I say I am on the side of the people of hadith,

Woe is me! They say he knows nothing and does not understand.

I admire this time and its people,
No one is safe from the language of the people.

From this poem, it can be concluded that Al-Zamakhshari was not condemning sectarianism because of differences within sects, but that he was not prejudiced in addressing issues between sects. The fact that Al-Zamakhshari, as a faqih, did not

Their religion is Hanafi, their sect is Hanafi, and they do not pay attention to things that are useless and unnecessary [6: 91].

Evidence of those who emphasize belonging to the Shafi'i sect. Al-Zamakhshari respected Shafi'i as much as he respected Abu Hanifa and praised him as "Aimmatul Ulama" (Imam of the Scholars). The scholar wrote a book on the legacy of Shafi'i, entitled Shafi'ul ayn min kalami-sh-Shafi'i. Al-Zamakhshari also used Shafi'i views in some places in his commentary.

Evidence from those who insist that there is no prejudice in following a sect. Factors such as the prejudices of the jurisprudential sects during the time of Al-Zamakhshari, and the desire to prove that the evidence presented by one sect to another is incorrect, may have prompted the scholar to be careful in following a particular sect in jurisprudence. As proof of this, Al-Zamakhshari finished the following poem:

إذا سألوا عن مذهبي لم أبح به
فإن حنفيا قلت قالوا بأنني
وإن مالكا قلت قالوا بأنني
وإن شافعيا قلت قالوا بأنني
وإن حنبليا قلت قالوا بأنني
وإن قلت من أهل الحديث وحزبه
تعبت من هذا الزمان وأهله

prefer the views of the four sects in the places he deemed necessary, shows that he preferred the sect to which he considered to be correct.

JUDGMENT FROM THE VERSES IN AL-KASHSHAF

In his commentary, Al-Zamakhshari did not mention the name of any source in his judgment of the rulings. Perhaps he quoted the views of the jurists on the subject.

The scholar referred to the hadiths many times in the play in order to support his opinion. These hadiths are suspended hadiths in which the names of the narrators are omitted. Of the hadith books, the author mentions only the Sahih of Muslim and the Sunan of Abu Dawud. Although he did not cite the source of the hadiths, Al-Zamakhshari was weak or the subject emphasized the hadiths.

Al-Kashshaf can be considered both a narrative and a mental commentary. In particular, in his commentary on verses on jurisprudential topics, the author not only narrates the views of his predecessors, but also mentions his personal ijtiha on the subject and mentally interprets it.

Al-Zamakhshari did not mention the source of the views of the faqihs he cited in his coverage of jurisprudential topics. In quoting the evidence, he first refers to the views of the Hanafis, and then the imams of other sects turn to the fatwas [3: 18]. Sometimes he emphasizes the judgment he has interpreted among the sects, and sometimes he does

¹ "Nabiz" is a jam in which dried fruits such as dates and raisins are soaked in water and consumed without turning into wine. If its time passes, it becomes a wine, that is, an intoxicating drink.

not dwell on which view he prefers [3: 280, 166]. He even gives a solution with his *ijtihad* without resorting to the opinion of any sect in some places [3: 219]. In addition to the four sects, it also refers to the views of the Zaydi sect [3: 246].

Al-Zamakhshari mentions the names of Abu Yusuf and Imam Muhammad, the students of Abu Hanifa, and in some places mentions them in the form of “صاحبا” and “صاحبيه” meaning two disciples of Abu Hanifa [3: 153]. In places where the imams of the Hanafi school are in opposition to each other, Al-Zamakhshari behaves as follows:

- The places where two disciples opposed Abu Hanifa;
- Abu Hanifa and Abu Yusuf equally opposed Imam Muhammad;
- In very few places does he quote Imam Zufar [3: 453, 679, 215].

In the comparative analysis of the statements of the four sects, he follows the following path:

- Quotes the views of Abu Hanifa and Shafi'i, but does not state that he preferred one of the two;
- Abu Hanifa and Shafi'i narrate the issues they allied with;
- Sometimes only Imam Malik quotes but does not translate;
- Sometimes “scholars have agreed” or “scholars have given evidence” does not mention the name of the sect, but does not explicitly state which sect the ruling belongs to.
- In some cases, he refers to the representatives of the four sects without naming them “Ahl al-Hijaz” or “Ahl al-Iraq.”
- Sometimes, after quoting four sectarian arguments on the subject, he concludes his *ijtihad* [3: 486, 362, 517, 367, 500, 359].

Al-Zamakhshari also used the method of “*istishhad*” (interpretation based on the meaning of words) to present evidence. Through this method, the author has been able to reveal the maturity of the Qur'an perfectly [2: 443].

Another method of the scholar's interpretation is “فإن قلت” (fa in qulta), in which the author asks a question in the form of “if you say so” as if an interlocutor was sitting on the opposite side, and responds as “I will say”. This style is found in the interpretation of each verse in the work.

EXAMPLES OF FATWAS ISSUED BY MAHMUD AL-ZAMAKHSHARI ON THE BASIS OF THE HANAFI SCHOOL

1. At the beginning of Surat al-Fatihah, the author dwells on whether the Basmala is a verse from the Qur'an. According to Abu Hanifa in the Hanafi school, “basmala” is not a verse from the Qur'an. Since each work is a virtuous work with “basmala”, at the beginning of each surah, “basmala” is written. Since it is not a verse from the Qur'an, the Hanafi scholars secretly recite the Basmala in the recitation of the prayer [5: 352]. Although Al-Zamakhshari cites the Shafi'i school of thought in this regard, it is possible to know that he followed the Hanafi school in this matter by describing in detail the path preferred by the Hanafis.

2. According to the Hanafis, if the word “amen” is recited secretly after the Fatiha, then it is *jahr* in the Shafi'i school. Al-Zamakhshari prefers the Hanafi view on this issue [3: 60].

3. Al-Zamakhshari writes that the word “منافع” (manafia) is mentioned as “nakra” (abstractive) in the verse “لِيَشْهَدُوا مَنَافِعَ لَهُمْ” (And let them witness the benefits for themselves).

The author dwells on the phrase, “وَيَذْكُرُوا اسْمَ اللَّهِ فِي أَيَّامٍ مَّعْلُومَاتٍ” (Let them mention the name of Allah in the slaughter of the sacrificial animals that Allah has provided for them). Al-Zamakhshari says that according to Abu Hanifa, the first ten days of Dhu'l-Hijjah are meant on “أَيَّامٍ مَّعْلُومَاتٍ” (certain days), and according to Abu Yusuf and Imam Muhammad, the first three days of Eid al-Adha are meant. He then states that the days of sacrifice in the Hanafi school are set for these days [1: 144], [3: 353].

The fact that Al-Zamakhshari dwells on this issue in detail and quotes only the views of the Hanafis indicates that his *ijtihad* in this regard was so firm that he did not find it necessary to turn to other sects.

CONCLUSION

Anyone who studies Mahmud Al-Zamakhshari's method of judging from the rulings of the verses will find that he was a mature jurist at the level of a mujtahid in the fields of method and *furu'ul fiqh*, along with the sciences of vocabulary, literature, poetry, maturity and logic. It can be said that he belonged to the Hanafi school because he relied on the views of the Hanafi school in many places in the commentary.

When the author's methods of judging on the basis of the Hanafi Madhhab, which he used in most places, were studied, it can be said that he was a mujtahid at the level of “mujtahid fi-l-masail” (*ijtihad* in different matters), who was the founder of the sect and his followers.



During the time of Al-Zamakhshari, the scholars of the four sects became divided, which led to his tolerance of the sects. Due to this, it can be said that in some places the views of the representatives of other sects than the Hanafi school were more appropriate, based on the characteristics of the words in the verse. This is because the fact that a scholar who has repeatedly emphasized that he is a Hanafi is opposed to his own sect stems from the fact that the meaning of the words in the verse corresponds to which sect he belongs to. This view is also supported by the fact that it does not explicitly state the verdict on the subject matter.

It should be noted that Mahmud Al-Zamakhshari's statement of the views of the four sects in ruling shows that he perfectly mastered the methods and methods of these sects. The fact that he wrote *Ruusu-l-masail fi-l-fiqh* on the controversial issues of the Hanafi and Shafi'i sects means that he was also a mature scholar in the science of khilaf. Indeed, as Mahmud Al-Zamakhshari as a faqih, Abdulhay Al-Laknawi said: "He was one of the greatest of the Hanafi faqihs and was a high-ranking faqih."

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DESIGN AND IMPLEMENTATION OF ELECTRIC ASSISTED BICYCLE WITH ATTACHED DYNAMO

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ABSTRACT

As we all know the fuel prices especially the petrol is rising steadily day by day. Again the pollution due to vehicles in metro cities and urban areas is increasing continuously. To overcome these problems, an effort is being made to search some other alternative sources of energy for the vehicles.

An electric bicycle is uses the same designs, geometries, and components as other bicycles, but also includes an added electric motor. This is fueled by a rechargeable battery, which gives riders an extra boost of power and ultimately provides a smoother, more convenient and less strenuous cycling experience. By eliminating many of the obstacles that keep people from cycling obstacles such as headwinds, steep hills, and bike commutes that leave riders tired, messy and sweaty electric bikes help make the freedom, exhilaration and satisfaction of cycling available and accessible to a wide range of potential cycles For many, electric bikes are an attractive alternative to both conventional bicycles and traditional automobiles, providing an environmentally friendly, fun, efficient, and convenient way to travel.

As part of dissertation work, the e-bicycle is fitted with a dc hub motor on back axle of a bicycle with power rating of 250W and with a travelling speed of around 25-30kmph. It is provided with a pair of lead acid batteries of 9Ah , the dynamo is attached with the back axle when the wheel is rotating then the dynamo can work. So, that energy will produce , accelerator and motor controller of 24v, 25 amp . There is also a provision for charging of the battery with 220-240V, AC wall outlet supply.

INTRODUCTION

Global warming and scarcity of traditional resources are becoming major problems in the current scenario. Due to the economic challenges India is facing in automotive sector the hybrid bicycle [1] market has a huge growth potential. People try to move towards "clean" energies. These facts among others will leverage the electric bicycle industry on the top of the agendas not only in India. Moreover the vision of an electric engine, which

supports the muscular strength, became reality. Bicycles with such a supporting electric engine belong to the innovative vehicles, which are wholeheartedly suitable for everyday life. In face of continuous climate discussions and permanent traffic jams, electric bikes have the potential of solving such issues and making a more energy efficient and environment friendly mobility possible. Accordingly a continuous trend towards electric bicycles can be expected simultaneously in whole of India. So it

becomes very necessary to manufacture the electric cycles so cheaply that the common people in our country can afford to buy it. The currently existing electric scooters are far more costly and due to budgetary constraints a middle class person cannot afford such a locomotive at his place. Along with the development of technologies the theory must be also implemented to design and manufacture a product that can be sold off at a greater frequency, which has a very low production cost and one that is of good quality. In order to implement all the above ideas, we planned to make the design and product in such a manner that it can be competed with the existing “e-Bikes” [9] in the market.

The basic idea is to attach a motor to the cycle for its motion. A motor that is powered by a battery and that can be switched on during difficult terrains and switched off and pedal to get the battery re-charged during motion in a flat terrain. The idea came into our mind as different stages of project planning, firstly we wanted to implement a simple moving system so the projection of cycle as a system came into our mind, and second stage was adding a necessarily useful component into it that can be beneficial in the future and for common people, falling into the current trend was that of hybrid system so we ended up planning to assemble a motor unit into the cycle drive. There were many issues that came up while making such a system major one of them being the power of the motor to be used, since no such previous systems were made we could not predict the type of motor which we should go for. Second thing being the weight factor, the addition of extra weight on to the system, which can cause discomfort to the rider while normal pedaling. Third was the type of battery to be used, we should go for a battery that has longer life, economically viable, and also has less maintenance issues. Fourth issue was that self-recharging a battery with a motor alternator unit that too with the simple cranking motion of the

cycle was not viable, we had to utilize a mechanism that can come in handy here and that was by using the flywheel rotation technique.

BLDC MOTOR

The BLDC motor is widely used in applications including appliances, automotive, aerospace, consumer, medical, automated industrial equipment and instrumentation.

The BLDC motor is electrically commutated by power switches instead of brushes. Compared with a brushed DC motor or an induction motor, the BLDC motor has many advantages:

- Higher efficiency and reliability
- Lower acoustic noise
- Smaller and lighter
- Greater dynamic response
- Better speed versus torque characteristics
- Higher speed range
- Longer life

This document initially provides a general overview to familiarize the reader with motor control fundamentals, terms and concepts, and applications. The latter portion of this document provides detailed descriptions of motor structure, working principle, characteristics and control methods.

Stator

There are three classifications of the BLDC motor: single-phase, two-phase and three-phase. This discussion assumes that the stator for each type has the same number of winding. The single-phase and three-phase motors are the most widely used. Figure 5 shows the simplified cross section of a single-phase and a three-phase BLDC motor. The rotor has permanent magnets to form 2 magnetic pole pairs, and surrounds the stator, which has the winding.

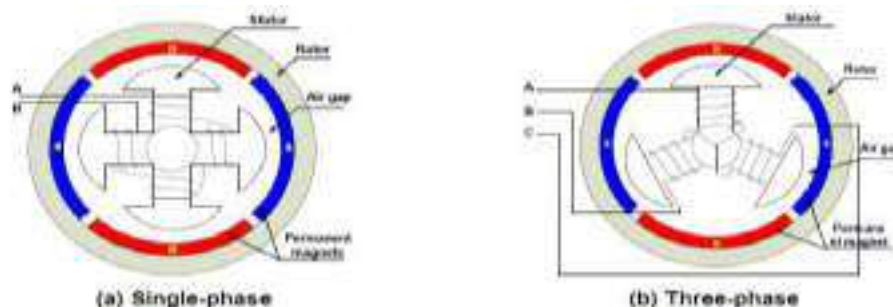


Fig.1 Simplified BLDC motor

A single-phase motor has one stator winding—wound either clockwise or counter-clockwise along each arm of the stator to produce four magnetic poles as shown in Figure 5(a). By comparison, a three-phase motor has three

winding as shown in Figure 5(b). Each phase turns on sequentially to make the rotor revolve.

There are two types of stator winding: trapezoidal and sinusoidal, which refers to the shape of the back electromotive force (BEMF) signal. The

shape of the BEMF is determined by different coil interconnections and the distance of the air gap. In addition to the BEMF, the phase current also follows a trapezoidal and sinusoidal shape. A sinusoidal motor produces smoother electromagnetic torque than a trapezoidal motor, though at a higher cost due to their use of extra copper winding. A BLDC motor uses a simplified structure with trapezoidal stator winding.

Rotor

A rotor consists of a shaft and a hub with permanent magnets arranged to form between two to

eight pole pairs that alternate between north and south poles. Figure 6 shows cross sections of three kinds of magnets arrangements in a rotor.

There are multiple magnet materials, such as ferrous mixtures and rare-earth alloys. Ferrite magnets are traditional and relatively inexpensive, though rare-earth alloy magnets are becoming increasingly popular because of their high magnetic density. The higher density helps to shrink rotors while maintaining high relative torque when compared to similar ferrite magnets.

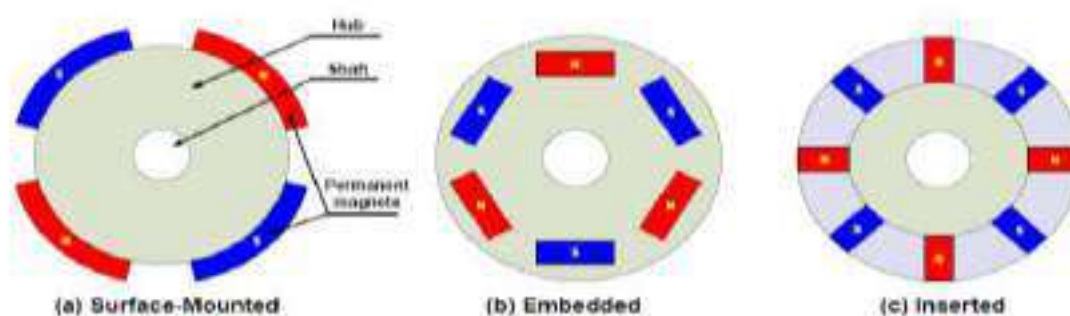


Fig.2 Rotor magnets cross sections

BATTERY



Battery type : 12 volts 9 Amps
Minimum quality : 2 pieces
Capacity(Ah) : 9000Ah

CONSOLE



The most basic functionality of the console is to display how much battery power is left. Otherwise, how would you know how many more kilometers are

available for you to enjoy the electric assistance before you will need to go back to the stone age and start pedaling without any assistance.

THROTTLE



The throttle mode is similar to how a motorcycle or scooter operates. When the throttle is

engaged the motor provides power and propels you and the bike forward.

DYNAMO



A cycle dynamo is an electric motor in which mechanical energy is converted into electrical energy works on the principal of faraday laws of electromagnetic induction.

PARTS OF DYNAMO

1. DC motor
2. Adopter
3. Light
4. Rotating edge knob

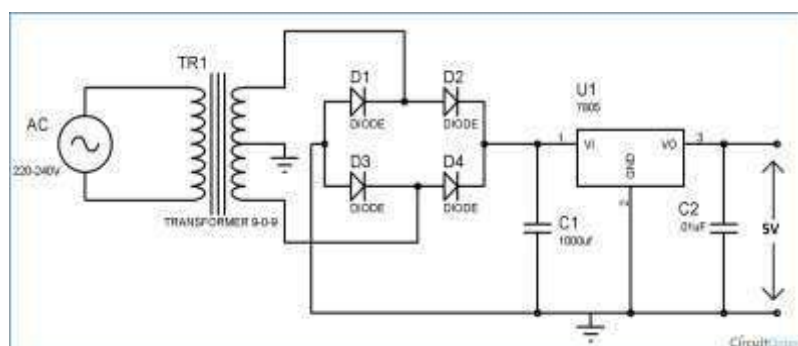
DC MOTOR



A **DC motor** is any of a class of rotary electrical motors that converts direct current electrical energy into mechanical energy. DC motors were the first form of motor widely used, as they could be powered from existing direct-current lighting power distribution systems. A DC motor's speed can be controlled over a wide range, using either a variable supply voltage or by changing the strength of current in its field winding. Small DC

motors are used in tools, toys, and appliances. The universal motor can operate on direct current but is a lightweight brushed motor used for portable power tools and appliances. Larger DC motors are currently used in propulsion of electric vehicles, elevator and hoists, and in drives for steel rolling mills. The advent of power electronics has made replacement of DC motors with AC motors possible in many applications.

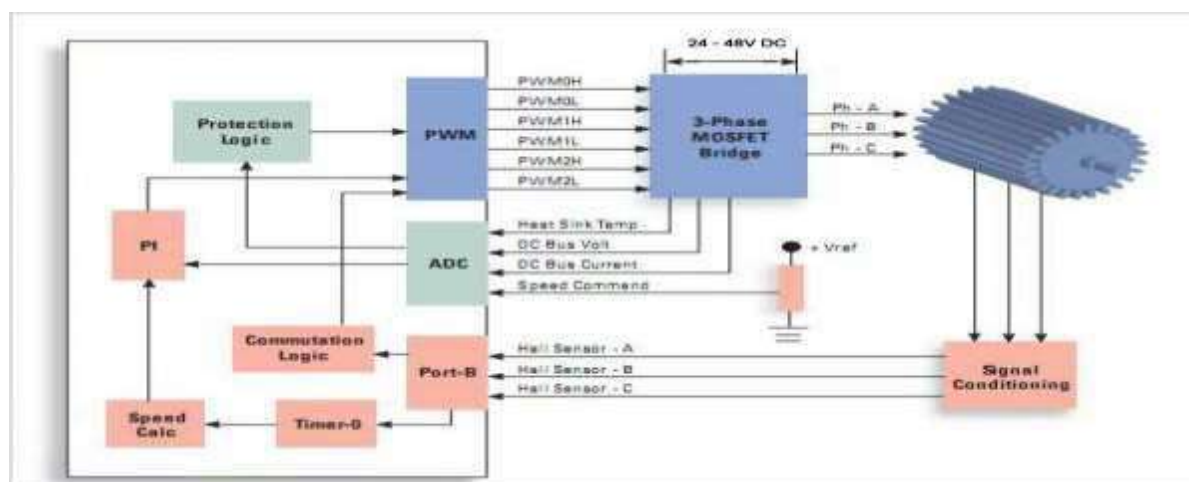
ADAPTER



An **adapter** is a physical device that allows one hardware or **electronic** interface to be adapted (accommodated without loss of function) to another hardware or **electronic** interface. In a computer, an **adapter** is often built into a card that can be inserted into a slot on the computer's motherboard.

An AC-to-DC power supply adapts electricity from household mains voltage (either 120 or 230 volts AC) to low-voltage DC suitable for powering consumer electronics. Small, detached power supplies for consumer electronics are called *AC adapters*, or variously *power bricks*, *wall warts*, or *chargers*.

CONTROLLER



Typically includes detection, A/D conversion, and output comparison components. For a low-end system, the ultra-low power micro controller is available while the C2000 digital signal processor can be used for a complex system with more features.

PWM INVERTER

Nowadays most of the inverters available in the market utilizes the PWM(Pulse Width Modulation) technology. The inverters based on PWM technology are superior in many factors compared to other inverters designed using conventional technologies. The PWM based inverter generally use MOSFETs in the output switching stage. In such cases the inverters are generally termed as PWM MOSFET inverters. The inverters based on PWM technology

has a lot of protection and control circuits compared to the traditional inverters.

PWM or Pulse width Modulation is used to keep the output voltage of the inverter at the rated voltage(110V AC / 220V AC) (depending on the country) irrespective of the output load. In a conventional inverter the output voltage changes according to the changes in the load. To nullify effect caused by the changing loads, the PWM inverter correct the output voltage according to the value of the load connected at the output. This is accomplished by changing the width of the switching frequency generated by the oscillator section. The AC voltage at the output depend on the width of the switching pulse. The process is achieved by feed backing a part of the inverter output to the PWM controller section (PWM controller IC). Based on this feedback voltage the PWM controller will make necessary corrections

in the pulse width of the switching pulse generated at oscillator section. This change in the pulse width of the switching pulse will cancel the changes in the output voltage and the inverter output will stay constant irrespective of the load variations.

CONVERTER

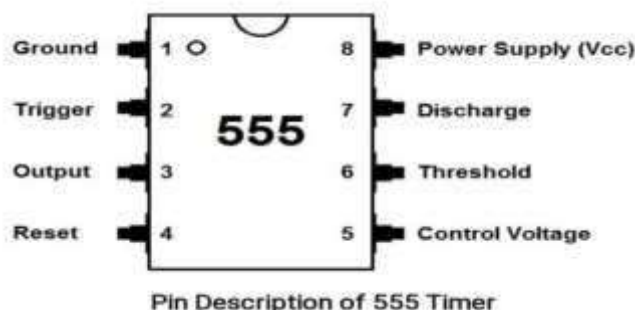
In electronics, an analog-to-digital converter (ADC, A/D, or A-to-D) is a system that converts an analog signal, such as a sound picked up by a microphone or light entering a digital camera, into a digital signal. An ADC may also provide an isolated measurement such as an electronic device that converts an input analog voltage or current to a

digital number representing the magnitude of the voltage or current. Typically the digital output is a two's complement binary number that is proportional to the input, but there are other possibilities.

There are several ADC architectures. Due to the complexity and the need for precisely matched components, all but the most specialized ADCs are implemented as integrated circuits (ICs). These typically take the form of metal–oxide–semiconductor (MOS) mixed-signal integrated circuit chips that integrate both analog and digital circuits.

A digital-to-analog converter (DAC) performs the reverse function; it converts a digital signal into an analog signal.

555 TIMER



555timer is an integrated circuit which contains 8 pins and the description of each pin is given in the pin description. This timer is used in the pulse generation, oscillators and in different timer circuits. The 555timer produces time delays in the oscillator, also in flip flop elements and the 555 timer contains three modes which are A stable, Bi stable and Mono stable modes. The following diagram shows the 555 timer integrated circuit.

MOSFET

A MOSFET driver IC is a high-gain amplifier that uses a low-voltage input to switch on/off discrete power MOSFETS in high-voltage applications. MOSFET driver ICs are commonly used to switch MOSFETS in a half-bridge circuit. The MOSFET driver IC controls switch timing to ensure that only one transistor conducts at a time, preventing potentially damaging shoot-through current.

In applications where multiple power supplies are connected in parallel (e.g., backup power supplies), ORing Schottky diodes are commonly used for protection. However, if a large current is required, the diode forward-voltage drop causes significant power loss, which means a heat sink is required. For these applications, it is better to use a MOSFET instead of a Schottky diode. MOSFETS, which have a lower on-resistance than Schottky diodes, produce

less heat and therefore do not need heatsinks, making the overall solution size smaller.

ORing MOSFET controllers provide the control logic required for this type of circuit. Single and dual drivers, along with secondary-side synchronous drivers, provide even greater efficiency for isolated designs. We provide evaluation kits and reference designs for quick prototyping and design verification. Industry-leading features of our MOSFET driver ICs include fast delay times, small package sizes, high efficiency, and better reliability.

BREAKING SYSTEM

MECHANICAL BREAKING SYSTEM

A bicycle brake reduces the speed of a bicycle or prevents it from moving. The three main types are: rim brakes, disc brakes, and drum brakes. There have been various types of brakes used throughout history, and several are still in use today. Most bicycle brake systems consist of three main components: a mechanism for the rider to apply the brakes, such as brake levers or pedals; a mechanism for transmitting that signal, such as Bowden cables, hydraulic hoses, rods, or the bicycle chain; and the brake mechanism itself, a caliper or drum, to press two or more surfaces together in order to convert, via friction, kinetic energy of the bike and rider into thermal energy to be dissipated.



ELECTRICAL BREAKING SYSTEM

The electric current controlling the brake through the electromagnet is provided from a brake controller which provides the control current from the towing vehicle. There are different types of brake controllers on the market, each with their own advantages and disadvantages. The current controlling the brakes from the towing vehicle is originating in the battery/alternator of the towing vehicle via the brake controller and then transferred via wiring through the electric brake pin in the trailer connector through the trailer wiring to the electromagnet and back through the trailer wiring to the trailer connector and to the towing vehicle chassis/frame through the ground pin in the trailer connector. To minimize interference between vehicle lighting and brakes the circuits shall be as separated as possible.

CONCLUSION

The issues associated with electric bicycles may be addressed by custom-designed drives that are most efficient over a given operating cycle. These include city bicycles, hill bicycles, distance bicycle, and speed bicycles.

The results of the studies listed here can serve as a platform to improve electric bicycle performance if new drive systems are designed around key parameters that will result in improvement of the system performance. Furthermore, they can be used for comparison of existing drives in a systematical, comprehensive, and technical way.

It is suitable for both country and city roads, that are made of cement, asphalt or mud. This bicycle is cheaper, simpler in construction & can be widely used for short distance travelling especially by school children, college students, office goers, villagers, postman etc. It is very much suitable for young, aged, handicap people and caters the need of economically poor class of society.

It can be operated throughout the year free of cost. The most important feature of this bicycle is that it does not consume valuable fossil fuels thereby saving crore of foreign currencies. It is eco friendly & pollution free, as it does not have any emissions. Moreover it is noiseless and can be recharged with the AC adapter in case of emergency. The operating cost per kilometer is minimal, around Rs.0.70/km. It can be driven by manual pedaling in case of any problem with the charging system. It has fewer components. Can be easily mounted or dismounted, thus needs less maintenance.

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PROBLEMATIC CHARACTERS IN ANDREA HIRATA'S NOVEL *ORANG-ORANG BIASA*: AN OVERVIEW OF CHARACTER EDUCATION VALUE

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ABSTRACT

Character education is needed to build quality human resources. This study aims to describe and explain the values of character education through problematic characters in the novel Orang-Orang Biasa. The data in this study are data on the values of character education in the form of dialogue quotes, sentences, and paragraphs in novels. The data source is Andrea Hirata's novel Orang-Orang Biasa. The data collection technique uses documentation techniques with reading, recording, and assessment activities. The validation technique used is the theory triangulation technique and data triangulation. The data analysis technique uses an interactive model analysis technique which includes three components, namely: (1) data reduction; (2) data presentation; and (3) drawing conclusions. The results showed that the novel contained eight values of character education, namely integrity, perseverance, kindness, responsibility, self-discipline, courage, good judgment, and respect. This value is represented by eight different figures. Novels of Orang-Orang Biasa can be used as a medium to add values to character education through literary learning.

KEYWORDS: character education, characters, novels

INTRODUCTION

Education plays an important role in preparing Indonesian human resources to become high quality human resources [1]. The quality of human resources can be created from three domains, namely affective, cognitive, and psychomotor. However, the weakness of education which still prioritizes the results of intellectual intelligence only causes other areas of intelligence to disappear [2]. In fact, attitudinal intelligence and skills are also very important to form a good person and have skills according to their interests and talents. One very urgent domain for Indonesian human resources is attitude or affective. The affective domain is developed through character education that reflects the national identity and culture.

Strengthening character education is urgently needed because of the increasing moral crisis in adolescents aged 10-24 years who reach around 26.67% of the total population of Indonesia [3]. This moral problem is characterized by arrogance, low social care, slandering one another, and decreasing respect and respect for parents and lecturers as figures that should be respected and respected [4]. From these attitudes, these have developed into negative actions and behaviors such as fighting between students, free sex, drugs, rape / abortion, to corruption. This shows that the issue of national character education must be increased and becomes the concern of all parties [5].

The learning process in schools is an effort that needs to be strengthened to improve or minimize the character



crisis, one of which is through literary learning. Literature is everything that is written and printed. Literature is a form of creativity from an author that focuses on humans and their lives as objects by using words or language [6]. Literary texts are important to be placed in historical space and time in order to provide sufficient meaning in modern times [7]. Examining literary works will help us to grasp the meaning contained in the author's experiences conveyed through his imaginative figures and provide ways of understanding all types of social activities [8].

One type of literary work featuring many characters is novel. Novels as imaginary works contain pictures of life to which the characters respond and experience stories in accordance with the author's life view to the reader [9]. Novels are able to present the development of one character, complex social situations, relationships involving many or a few characters and various complex events that occurred several years ago in detail [10]. The character in the novel is a problematic hero who seeks authentic values in a degraded world [11]. Characters are built by certain basic combinations of fictional elements in the form of language, descriptions, actions, dialogue, and interactions with other scenes and characters [12].

In this connection, the characters in the novel become the driving force for the story through the events they experience. Character traits, attitudes, or actions can be formed from the problems they face. It is the depiction of a character's struggle in dealing with problems that accommodates meaningful values. By looking at a character's life as a whole, evaluating their goals and how they are achieving them can strengthen students' moral imaginations. Then they imagine, desire, and choose a more worthy goal for their own life [13]. Thus, focusing on problematic characters in a novel becomes an effort to instill a value in students.

Efforts to cultivate and strengthen values through the contents of the novel text are appropriate. This is because the value of a text is found in the text itself or is inseparably related to the work itself [14]. However, it should be noted that the meaning of a value must be valued in concrete and special situations because values are useful and lie in the heart as a basis for judgments about what is important in life, what is valuable, how someone might act and ultimately produce something of quality [15]. So, value is something that is useful and can encourage good behavior from within humans.

Character education is a system of instilling character values which includes components of knowledge, awareness or willingness, and actions to carry out these values [16]. Lickona [17] states that character education is an activity to help others understand, see, and carry out good and ethical values. Character education is a national movement that creates schools that foster ethical, responsible, and caring young generations by setting an example and teaching good character through an emphasis on universal values that we share [18]. So, the value of character education is a total belief system that regulates a person to behave properly which is obtained through the learning process in order to become a useful human being for himself and others.

Abourjilie [18] divides the value of character education into eight, namely: 1) Integrity; have the inner

strength to be honest, trustworthy, and act fairly and respectfully. 2) Preseverance; persistently pursue worthy goals despite difficulties, challenges or discouragement. 3) Kindness; considerate, polite, helpful and understanding of others. 4) Responsibility; reliable in carrying out obligations and duties and consistent in speech or behavior. 5) Self-Dicipline; set yourself up for improvement and prevention of inappropriate behavior. 6) Courage; have the determination to do the right thing even when other people do not do it. 7) Good judgement; set proper priorities and think about the consequences of actions. 8) Respect; show high respect for authority, others, oneself, property and the country.

This study will examine the values of character education in Andrea Hirata's novel *Orang-Orang Biasa*. Andrea Hirata is the author of the best-selling *Laskar Pelangi* novel, which has been published in 25 foreign languages and circulated in more than 130 countries. In the novel *Orang-Orang Biasa*, Andrea Hirata tells a group of marginalized people who try to help Aini's medical school tuition fees. She is the eldest daughter of Dinah, a member of this marginalized group. However, there are many other events and problems faced by the characters in the novel so that they are said to be problematic characters. Therefore, this study will focus on problematic figures who represent the values of character education with Abourjilie's theory which includes: integrity, preseverance, kindness, responsibility, self-discipline, courage, good judgment, respect.

Although similar research has been conducted previously by Agustyaningrum, *et al.* [19] which examines three novels by Nh Dini with a focus on the value of nationalism and produces forms of nationalistic values such as love for the country, willingness to sacrifice, and preserving the nation's cultural wealth. Likewise, research by Riza Perdana, *et al.* [20] on the novel *Raden Mandasia Si Pencuri Daging Sapi* by Yusi Avianto Pareanom. His study focuses on the character value of hard work represented by the characters in the novel. The result is that there are 11 figures who describe the character value of hard work. However, this study has differences with the two studies on the object of study and the theory used to analyze the values of character education through problematic figures. Thus, this research will complement efforts to cultivate character values to strengthen the affective domain through novel studies.

METHODOLOGY

This study uses a qualitative descriptive method so that researchers must collect their own data through examining documents, observing behavior, or interviewing participants/people [21]. The data in this study are data on the values of character education in the form of dialogue quotes, sentences, and paragraphs in novels. The data source is Andrea Hirata's novel *Orang-Orang Biasa*. The data collection technique uses documentation techniques with reading, recording, and assessment activities. The validation technique used is the theory triangulation technique and data triangulation. The data analysis technique in this study uses an interactive model analysis technique which includes three stages, namely: (1) data



reduction; (2) data presentation; and (3) drawing conclusions [22].

RESULT AND DISCUSSION

Orang-Orang Biasa Novel (OOB) is a novel that accommodates hero characters who seek authentic values in their world. In addition, the novel has several characters who can describe the values of character education through their participation in the story. These values are represented either directly or implicitly through the characters created by the author. Based on this, here are some figures who represent the values of character education.

1. Integrity through Inspektor Abdul Rojali Character

The value of integrity carried through the character of Inspektor Abdul Rojali is very prominent in the story. He highly values his own integrity as an ordinary policeman by acting fairly and with respect. This is reflected in the attitude of the inspector who refuses to get privileges for his child who failed the test at the nursing school. Here's an excerpt.

"But, my child didn't pass the test, Miss."

"Yes, this is a special privilege for children of officials."

"Sorry, Miss, I'm not an official, I'm just an ordinary cop. Please say thank you to the principal. And also say that you will take the test again next year." (OOB, 64).

In the quote, the Inspector clearly respects the school for its efforts to make it acceptable for their child. However, with his integrity, the Inspector refused to do so and made more efforts for his son to take another test in the following year. Furthermore, the value of integrity inherent in Inspektor Abdul Rojali is honesty. He was a police officer who could not be bribed even though at that time he desperately needed money. This started when two men accompanied by a woman were about to open a luxury goods business but were constrained by certain parties. They then asked the Inspector for help to run their business, especially in relation to parties who disturbed their business. Unexpectedly, they intended to give the inspector tens of millions of rupiah in cash but was refused. The inspector's honesty can be illustrated by the following quote.

"Hmmm, If you see them again, please tell me, sergeant, if they dare to do what they were doing then, I will immediately arrest them for trying to bribe the authorities! Then, they, including the beautiful woman, will experience a very unpleasant event called a verbal process!" (OOB, 151)

Inspector Abdul Rojali's integrity is the representation of a police officer. True law enforcers who work wholeheartedly and uphold the name of state institutions. This proves that the police are servants and protectors of the community who are able to provide a sense of security to all citizens without exception. Apart from that, the police cannot be intervened by any party, especially those who intend to bribe the police for their own interests. Thus, the figure of Inspektor Abdul Rojali experienced problems as a police officer who was often bribed or given certain

privileges and rewards. However, he continued to uphold the principles of integrity.

2. Preseverance through Aini Character

The value of the preseverance character is depicted by the character Aini, a child born to a poor family. After her father died due to illness, Aini became more and more determined. She reads books wherever she has free time, borrows many books in the library, and of course studies hard with her math teacher, Mrs. Desi Mal. These changes made Mrs. Desi curious and feel proud to have students who were very determined to master mathematics. Here's an excerpt.

"Why are you studying so hard, Aini? I've been a teacher for 35 years, I've never seen a student as strong as you, Ni." (OOB, 45)

The diligent character education value inherent in Aini's character emphasizes that nothing can be achieved by taking it easy without diligent efforts. Aini, who used to be unable to do math, is now able to conquer it easily. It was because of her persistence and persistence that she could be accepted into the medical faculty of a well-known public university. However, a new problem arose when she realized that she would not be able to afford the expensive medical school tuition fees. Realizing this, Aini never gave up and never gave up to reach her dream of becoming a doctor. She then decided to work at the Kupi Kuli shop in hopes of raising money to pay for her college. Here's an excerpt.

Dinah's smart daughter, Aini, eventually became a waitress at the Kupi Kuli shop. She worked from morning to evening, sometimes into the evening. Exhausted she worked all day ... (OOB, 122)

Aini experienced problems in learning to realize her goals with persistence. Aini's persistence is a representation of tough students who will never give up on circumstances and keep trying to achieve their dreams. Thus, the value of persistence needs to be exemplified in order to get what you want.

3. Kindness through Debut Awaludin Character

The value of the kindness character is contained in Debut Awaludin as a hero character in the OOB novel. Concern for his friends is one of the virtues brought by Debut figures. The desire to help Dinah to be able to educate her child is the pinnacle of representation of the value of Debut's goodness. Moreover, it is related to injustice towards marginalized people; poor people who want to get the right to education. For this reason, Debut did various things to help Dinah. Even though using bad methods for good, the value of goodness that is raised is mutual help. This is illustrated in the following quote.

"All the money in the world is in the bank! Your son must enter the Faculty of Medicine! Whatever will happen! A mother is willing to cut her hand for her child! Wipe your tears, Dinah! Prepare yourself! Prepare yourself well! Because we're going to rob the bank!" (OOB, 79)

In the end, the Debut who initiated the robbery had a pure good spirit. Even though he and his friends succeeded



in robbing them, in the end they returned the illegal money. They agreed not to use the money to help Dinah educate their child, but to use the solidarity of their friends to try to earn money in a lawful way. Thus, Debut Awaludin is a problematic hero figure for his idealism towards the education of marginal groups with a sense of solidarity and kindness as friends. The following is an excerpt that illustrates the description.

The bank robbers kept their promise to borrow from anywhere and sell anything for Aini's down payment. The next cost they will think about later. (OOB, 254)

The value of goodness character needs to be owned to improve relationships between humans. The kindness represented by Debut figures is a form of empathy that needs to be emulated. With kindness, someone will care more about others, lighten the burden on others, and uphold justice. Therefore, absolute goodness belongs to every student as a student and as a citizen.

4. Responsibility through Guru Akhirudin Character

The value of the character of responsibility is illustrated by the character Guru Akhir. He is an art teacher who has problems with the loss of his artistic soul due to sluggish support from his surroundings. But unexpectedly, he got a shipment of 1000 *topeng monyet* from someone to be used as an art show at a carnival in August. It revives its artistic soul. Then he felt the need to make this carnival more festive and exciting than the previous monotonous years. Guru Akhir felt he had to be responsible for the success of the festival with his artistic skills. One of the forms of responsibility is conducting research for the purposes of concocting the festival later. Here's an excerpt.

Outside the monkey cage, Guru Akhir is doing research for his carnival art project. He was jumping, hopping, grinning, imitating the behavior of the monkeys in the cage, amazed zoo visitors saw him. (OOB, 140)

Thanks to his totality in art, the 1000 monkey dance festival was a huge success. However, one thing that interfered with his success in the event was that several robbers who were disguised as the same *topeng monyet* participated in the carnival. This incident forced Guru Akhir to fulfill the police summons for questioning as a witness. As someone who pioneered the carnival, Guru Akhir is a person full of responsibility. This was reflected in the attitude of Guru Akhir, who complied with the police summons and openly gave information related to the carnival. Here's an excerpt.

"All right, Guru, back to the matter of the muggers disguising themselves as monkey dancers and joining the parade ..."

"This is the moment I've been waiting for, Kumendan! First of all, of course Kumendan wanted to know how I got the 'topeng monyet'." (OOB, 232)

From Guru Akhirudin character we can learn that everything that is our duty must be done responsibly. Even though there are problems that arise, we still have to be accounted for because we are involved in them. The value of the character of responsibility is important for dealing

with mistakes, building trust, and professionalism in duty.

5. Self-Dicipline through Dinah Character

Dinah is a problematic character who stirs the story because her son has successfully entered medical school but he cannot pay his tuition fees. Through these problems, Dinah accommodated the value of self-disciplined character education. Even though she is a poor person and tends to be academically stupid but has a character that is able to control himself from bad deeds. She was angry when Debut invited her to rob a bank to pay for her son's college. Here's an excerpt.

"Did you take the wrong medication, But? We are stupid, we are poor, but we are not thieves!" (OOB, 83)

Although in the end Dinah also robbed, but she did not use the money from the robbery to educate her son. Dinah refused to use the illicit money. Finally, Dinah's character description has a relationship that is able to unite her with her friends so that they agree not to use it and return money that is not their right. Here's an excerpt.

"Sorry, friends, corruption money, illicit money, even for a cent, I don't want to send my son to school with this money." The others smiled as if they agreed with that view. (OOB, 224)

Self-dicipline character values can prevent someone from behaving badly that endangers himself or others. Prevention of negative things prevents a person from committing acts such as stealing, slander, using drugs, corruption and others. Therefore, self-dicipline needs to be instilled in a person from an early age.

6. Courage through Salud Character

The courage character value appears from the character Salud. Previously, he was a student who was timid and did not dare to fight Bastardin CS. While still in school, Salud was subjected to bullying by Trio Bastardin and Duo Boron because of his strange face. This is what makes Salud a problematic figure. After years of leaving school, Salud heard that his friends were going to rob to pay for Dinah's child's college. Starting from here, courage appeared in Salud to join in the robbery, even though at first he was not invited by his friends. Unexpectedly, the target of the robbery was Bastardin's Precious Stone Shop. This incident became a turning point for Salud to avenge what Bastardin had done to him. The character courage Salud appears in the following excerpt.

... Bastardin clenched his fist, then threw it at Salud's face, Salud parried with his left hand, then hit Bastardin's chin with his right elbow. So hard was the blow that Bastardin fell to his knees... (OOB, 193)

The value of Salud's character education, namely courage, is not intended to take revenge. He only defended himself when Bastardin was about to beat him at the Precious Stone Shop. Salud could have knocked out Bastardin but he did not because that was not his goal to be involved in the robbery. The courage to challenge the law is done solely to help his friend to be able to educate her child and defend herself from things he never did before. Thus, Salud is a problematic character who brings the value of courage character education.



7. **Good Judgement through Mrs. Atikah Character**

The character value of good judgment is owned by the character Mrs. Atikah. She is a head of a bank branch who has problems due to being left by her husband. Her husband remarried his girlfriend in high school. This fact made Mrs. Atikah sad and angry, so she wanted to spit it out by stepping on the gas full of her sedan on the highway. Anger and resentment towards her ex-husband made Mrs. Atikah often endanger herself. It is contained in the following quotation.

... Coming home from work that afternoon she began to venture into speeding. She stepped on the gas slowly. Her eyes continued to look at the speedometer, without realizing it she had reached a speed of 80 kilometers per hour. She had never gone that fast. Her heart was pounding, wanting her to hit the gas again, but afraid, she slowly released the gas. The pace is ebbing. Mrs. Atikah gave the left turn signal, stepped aside, stopped, then burst into tears. (OOB, 121)

With the value of good judgment character education in Mrs. Atikah, she managed to control her desires. She can still think clearly and think about the consequences of his actions that could endanger himself and others. Therefore, the value of good judgment character education is very important for someone to be able to make wise decisions. The portrayal of the character of Mrs. Atikah fighting against anger in order to control her actions is something that needs to be emulated.

8. **Respect through Sergeant P. Arbi Character**

The value of respect character education is found in the figure of Sergeant P. Arbi who is the subordinate of Inspector Abdul Rojali. He is a young policeman who is always ready to accompany the Inspector at the police station or in the arrest of a robber. The city of Belantik, which has very little crime, has made Sergeant P. Arbi experience problems as a police officer who only serves people who want to write good behavior letters. However, if there was an order from the Inspector, he never refused and immediately carried it out. This is because Sergeant P. Arbi has great respect for Inspector Abdul Rojali, here is an example of his respect in the following quote.

"Good afternoon, sergeant, what are you doing, sergeant?" Silent for a moment. Actually the sergeant wanted to answer that he was busy typing letters of good behavior, but he remembered Kumendan's message first, that the world was ruined because many subordinates reported to their superiors as long as the boss was happy. Dishonest reports, not what they are. "Daydreaming, Kumendan!" (OOB, 89)

The above quote describes Sergeant P. Arbi who had great respect for Kumendan. He showed that respect was through the act of reporting what was there because that was the teaching of Inspector Abdul Rojali. He highly respects every order, decision, action and advice from the Inspector. The value of respect character education needs to be possessed by a person in order to respect others, obey policies, not be racist and uphold unity and integrity.

Based on the explanation above, Andrea Hirata describes very interesting characters, events and problems. He never gets tired of telling the world of education in his works, including the novel *Orang-Orang Biasa*. Almost all characters in the novel accommodate the value of character education. In this study, this value is represented by eight problematic figures. This value is very important for someone to have in order to reduce moral problems in Indonesia.

CONCLUSION

Based on the results of research and discussion, Andrea Hirata's novel *Orang-Orang Biasa* presents problematic characters. These figures accommodate the values of character education through the events and conflicts they experience. The values of character education include: integrity, perseverance, kindness, responsibility, self-discipline, courage, good judgment, and respect. These values can be integrated in literature learning to complement the needs of the attitude domain. This is an effort to instill character values in students to prevent bad behaviors that often harm others and their surroundings. That way, the novel *Orang-Orang Biasa* can minimize the character crisis that hit Indonesia while at the same time supporting the formation of quality human resources.

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A STUDY ON CONSUMER SATISFACTION TOWARDS HERBAL COSMETIC PRODUCTS WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

Herbal products plays an important role in people's life to protect them against various health issues. The study aims to identify the satisfaction of the customers towards herbal products in Coimbatore City. The study was based on questionnaire with a sample of 95 respondents. The findings were analyzed using simple percentage analysis, Ranking analysis, Likert scale analysis. Findings reveal that age, gender, occupation, Monthly income with customers level of satisfaction towards herbal products.

KEYWORDS: Herbs, Cosmetics, Natural, Herbal Products, Customers, Satisfaction & Health.

INTRODUCTION

Consumer satisfaction is the ultimate aim of any business. Both survival and growth of the business depends on its consumer satisfaction. The main objective of the business is to satisfy the consumer needs and wants. The word cosmetic was derived from the Greek word "kosmtikos" meaning having the power, arrange, skill in decorating. An herbal is "a collection of descriptions of plants put together for medicinal purposes." Herbal products play an important role in people's life to protect them against various health issues. Now a days People give more importance to their appearance so they are using various cosmetic products. Most of the people prefer to use the herbal cosmetic products more than the chemical products. This study helps in determining the level of consumer satisfaction towards the herbal cosmetic products.

STATEMENT OF THE PROBLEM

Various varieties of the products are available in the market consumers prefer the variety of products for high quality, and low price. People think that there is less chemical in herbal cosmetic products and it will not affect them. Despite the use of herbal products people have some problems like Acnes, Dark spots, Irritation, Itching, etc... The competition is severe and the manufacturers have to consider the opinion of the consumers. Thus this research aims to

explore the consumer satisfaction towards herbal cosmetic products in Coimbatore city.

OBJECTIVES OF THE STUDY

- To study the level of consumer satisfaction towards herbal cosmetic products.
- To study about the problems faced by consumers.

TOOLS USED FOR ANALYSIS

1. Simple percentage method.
2. Likert scale method.
3. Ranking Analysis.

LIMITATIONS

The result of the study is based upon the views expressed by the 95 respondents of Coimbatore City. The statistical tools used to analyse the data have their own limitations. All the limitations of primary data are applicable to this study.

REVIEW OF LITERATURE

1. K. Subbulakshmi P. Geethamani, (2017), the study descriptive analysis has been carried out, to study the consumer's perception towards cosmetic items in patanjali products. The primary data used in the study through questionnaire method. It is found that the respondents of all the age group and income group are using personal care products. Herbal cosmetic products are preferred by the respondents as



compared to non herbal cosmetic products due to awareness of harmful effects of non herbal cosmetic products.

2. Gurmeet Kaur (2016) examine the consumer satisfaction towards selected herbal cosmetic products. The present study is based on primary data collected through questionnaire administered on 100 female respondents using herbal cosmetic products. The study depicts that majority of the respondents are satisfied with quality and price of herbal cosmetic products. First use experience, repeat purchase experience and usages experience also satisfy the respondents.

3. M. Banu Rekha and K. Gokila, (2015), the study has been understand the consumer attitude of the different strata people in the Indian society especially in Coimbatore city, Tamil nadu towards herbal cosmetic products. The classification of the different

strata of the people in area wise, age wise, income wise, etc.. It is concluded that the people now are not considering the cosmetics as luxury, most of the consumers feel that there are more chemical in cosmetics, which cause many side effects, and started switching over herbal based cosmetics.

4. V. Thiagaraj (2015) the personality used in commercials of particular brands of herbal oil had the greater impact on consumers. Companies should create those advertisements which look real and can connect to consumers directly because people do not react in favour of things that seem fake product.

5. Vani Nikhil Laturkar (2013) the consumer today has become aware of side effects of allopathic products on long term usage and subsequent consequences. Marketers should design their strategy around this aspect in promoting their products..

DATA ANALYSIS AND INTERPRETATION

1. SIMPLE PERCENTAGE ANALYSIS

Table No: 1.1

Table showing Demographic Profile of Respondents

Particulars	Factors	No. of Respondents	Percentage
Gender	Male	27	28.4%
	female	68	71.6%
Age group	15-20	61	64.2%
	21-25	31	32.6%
	26-30	1	1.1%
	31 & above	2	2.1%
Marital status	Married	4	4.2%
	Unmarried	91	95.8%
Occupation	Student	82	86.3%
	Government employee		
	Private employee	0	0.0%
	Self employer	8	8.4%
Monthly Income		5	5.3%
	0-10000	60	63.2%
	10001-20000	19	20.05%
	20001-30000	6	6.3%
	30000 & above	10	10.5%

INTERPRETATION

Table No: 1 describes the demographic profile of customers towards Herbal cosmetic products. Out of 95 respondents who were taken for this study it has been identified that most 71.6% of respondents

are Female, 64.2% respondents are age group between 15-20 years, 95.8% of respondents are unmarried, 86.3% of the respondents are students. In Monthly income 63.2% of respondents come under the category of Rs. 0-10000.

Table No: 1.2

Table showing source of knowledge about Herbal cosmetic products

Source	No. of respondents	Percentage
Advertisement	47	49.5%
Friends	37	38.9%
Relatives	3	3.2%
Social media	8	8.4%

INTERPRETATION

The above table shows that out of 95 no. of respondents 49.5% respondents came to know about

herbal cosmetic products through Advertisements, 38.9% through Friends, 8.4% through Social media, 3.2% through Relatives.

2. RANKING ANALYSIS

2.1 TABLE SHOWING RATE OF HERBAL COSMETIC PRODUCTS

S. No	PRODUCTS	I	II	III	IV	TOTAL	RANK
1	Skin care	14 (4) 56	33 (3) 99	19 (2) 38	29 (1) 29	222	IV
2	Hair care	14 (4) 56	32 (3) 96	34 (2) 68	15 (1) 15	235	III
3	Body care	14 (4) 56	48 (3) 144	20 (2) 40	13 (1) 13	253	II
4	Oral care	41 (4) 164	41 (3) 123	14 (2) 26	13 (1) 13	326	I

INTERPRETATION

In the above table, out of 95 respondents, Oral care is in the Rank of I, Body care is in the Rank of II,

Hair care is in the Rank of III, Skin care is in the Rank of IV.

3. LIKERT SCALE ANALYSIS

Table no. 3.1

Table showing level of satisfaction towards herbal cosmetic products

Factors	Number of Respondents					Likert scale value
	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly dissatisfied	
Quality	36	46	11	2	0	4.21
Availability	18	50	24	3	0	3.87
Price & Offers	9	46	35	5	0	3.62
Package	17	37	28	12	1	3.6
Harmless	15	46	24	3	7	3.62
Chemical free	18	39	30	5	3	3.67

INTERPRETATION

The above table shows that out of 95 respondents Likert scale value 4.2 which is greater than 4 so the respondents are highly satisfied with the product Quality, 3.87 which is greater than 3 so the respondents are satisfied with product availability, 3.62 which is greater than 3 so the respondents are satisfied with product price and offers, 3.6 which is greater than 3 so the respondents are satisfied with product package, 3.62 which is greater than 3 so the respondents are satisfied harmless of the product, In Chemical free of the product likert scale value is 3.67 which is greater than 3 so the respondents are satisfied.

FINDINGS

1. SIMPLE PERCENTAGE ANALYSIS

- Majority (71.6%) 68 respondents are Female
- Majority (64.2%) 61 respondents are age group between 15-20 years.
- 4(4.2%) respondents are Married, 91 (95.8%) respondents are unmarried.
- Majority (86.3%) 82 respondents are students.
- Majority (63.2%) 60 respondents monthly income is Rs. 0-10000
- Majority (49.5%) 47 respondents came to know about the herbal cosmetic products through the Advertisement.



- Majority (37.9%) 36 respondents buy the herbal cosmetic products once in few months.
- Majority (48.4%) 46 respondents purchase herbal cosmetic products from the Super market.
- Majority (45.3%) 43 respondents are using Skin care products.
- Majority (49.5%) 47 respondents are using herbal cosmetic products less than 1 year.
- Majority (74.7%) 71 respondents did not face any problem while using the herbal cosmetic products.
- Majority (45.8%) 11 respondents had dark spots while using the herbal cosmetic products.
- Majority (63.2%) 60 respondent's opinion comes under the category of Good.
- Majority (32.6%) 31 respondents prefer the herbal cosmetic products because of No chemical.
- Majority (43.2%) 41 respondents are using single brand of herbal cosmetic product.
- Majority (84.2%) 80 respondents are suggested others to purchase herbal cosmetic products

2. RANKING ANALYSIS

- Out of 95 respondents, Oral care is in the Rank of I, Body care is in the Rank of II, Hair care is in the Rank of III, Skin care is in the Rank of IV.

3. LIKERT SCALE ANALYSIS

- Satisfaction level of product (Quality) - Likert Scale Value is 4.21 which is greater than 4. So the respondents are HIGHLY SATISFIED
- Satisfaction level of product (Availability)- Likert Scale Value is 3.87 which is greater than 3. So the respondents are SATISFIED.
- Satisfaction level of product (Price and Offers)- Likert Scale Value is 3.62 which is greater than 3. So the respondents are SATISFIED.
- Satisfaction level of product (Package)- Likert Scale Value is 3.6 which is greater than 3. So the respondents are SATISFIED.
- Satisfaction level of product (Harmless)- Likert Scale Value is 3.62 which is greater than 3. So the respondents are SATISFIED.
- Satisfaction level of product (Chemical free)-Likert Scale Value is 3.67 which is greater than 3. So the respondents are SATISFIED.

SUGGESTIONS

1. The manufactures could reduce the chemical combination in the herbal cosmetic products because, many of the respondents feel that there is more chemical combinations in the herbal cosmetics especially in skin care products.
2. The manufactures can conducts a survey for knowing the consumers need.
3. Ingredients of the products should be made clear in the package to satisfy the consumers.
4. Quality of the product should be checked frequently.
5. While using the products 25% of the respondents faced the problems like Dark spots, Acnes, Itching and Irritation so, the manufactures have to use some effective herbs to solve these problems.

CONCLUSION

“THE GREATEST WEALTH IS HEALTH”

Living healthy is the wish of each and every human being in the universe. The people now are not considering the product as luxury, most of the consumers feel that there are more chemical in cosmetics, which cause many side effects, and started switching over to the herbal based cosmetics. The chemical combination in herbal cosmetic products should be reduced by the manufactures, so that it would increase it's usage by the consumers. The study reveals that majority of the consumers are satisfied with herbal cosmetic products.

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A STUDY ON PROBLEMS FACED BY MIGRANT LABOURS WITH SPECIAL REFERENCE TO TIRUPUR REGION

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ABSTRACT

Today the Economy depends on migrant labourers for various activities, so as to it is very important to analyse the economical conditions and livelihood of those people. A study on problems faced by migrant labours with special reference to Tirupur region. The study consist of 81 respondents and interview was conducted with interview schedule. The finding were analyzed using Simple percentage analysis, Likert scale analysis and Chi- square analysis.

KEY WORDS: Migrant labours, Migration, Economy, Flying population.

INTRODUCTION

Migration is an important feature of human civilization. It reflects, human endeavour to survive in the most testing conditions both natural and man-made. Migration in India has existed historically, but, in the context of globalization and opening up of the world economy it has assumed special significance for the country and the society. As a consequence of historical and economic factors, there are serious income disparities, agrarian distress, inadequate employment generation, vast growth of informal economy and the resultant migration from rural areas to urban, urban to urban and backward to comparatively advanced regions in the most conditions.

STATEMENT OF THE PROBLEM

Migration is an important feature of human civilization. It reflects, human endeavour to survive in the most testing conditions both natural and man-made. Migration in India has existed historically, but, in the context of globalization and opening up of the world economy it has assumed special significance for the country and the society. As a consequence of historical and economic factors, there are serious income disparities, agrarian distress, inadequate employment

generation, vast growth of informal economy and the resultant migration from rural areas to urban, urban to urban and backward to comparatively advanced regions in the most appalling conditions.

SCOPE OF THE STUDY

- The present study has been undertaken to analyse the problems of migrant labourers in Tirupur . The geographical scope of the study extends to the areas of Tirupur locality.
- All the migrant labourers hanging around Tirupur form the part of the universe.

OBJECTIVES OF THE STUDY

- To explain the demographic data.
- To study the status of Internal Migrants in India with special focus on Tirupur region.
- To examine the challenges/threats faced by Migrant Society.
- To suggest solutions for inclusiveness of Migrants.

RESEARCH METHODOLOGY

The descriptive research design was adopted in this study. The data has been collected from both



primary and secondary sources. The data was collected from 80 respondents from Tirupur region through questionnaire by adopting convenient sampling method. Percentage analysis, Chi-square analysis and Likert scale method were used to analyse the data.

LIMITATION OF THE STUDY

- This study is restricted to Tirupur Region only due to cost and time constraints.
- The information provided by the respondents is spontaneous and they may not be consistent.

REVIEW OF LITERATURE

1. Ankhila Handral , Anbukkani & Prabhakar kumar (2018)¹ the present study focuses on capturing the changing scenario of internal migration between rural and urban areas . The study uses a descriptive design with use of secondary data taken from NSSO and CSO . The findings let us know that poorer households of the labour region do not seem to migrate to same extent as the richer ones because of insecurity or in idea of occupying the vacant jobs left by the migrated, which may however contribute to a higher economic development on a whole.
2. Yasmeen Sultana(2018)²to examine the socio economic variables and its influence on Migration. The study uses stratified random sampling method , with both primary and secondary data where primary data were collected from 152 sample respondents and calculated with tools like correlation and ANOVA. The study examines the socio economic variables and its influence on migration , also find out differences between two business group (viz.North India and Tamil people)



DATA ANALYSIS AND INTERPRETATION

1) Simple percentage analysis

TABLE NO: 1
TABLE SHOWING WHICH STATE IS THE INDIVIDUAL FROM

S.NO	STATE	NO. OF RESPONDENTS	PERCENTAGE
1	Andhra	6	7
2	Bihar	1	1
3	Chattisgarh	4	5
4	Delhi	3	4
5	Gujarat	2	2
6	Haryana	2	3
7	Jharkhand	2	2
8	Karnataka	9	12
9	Kashmir	1	1
10	Kerala	15	19
11	Maharashtra	17	21
12	Meghalaya	1	1
13	Nagaland	1	1
14	Odisha	2	3
15	Punjab	3	4
16	Rajasthan	3	4
17	Sikkim	1	1
18	Telangana	2	2
19	Tripura	1	1
20	Uttar pradesh	4	5
21	West bengal	1	1
	TOTAL	81	100

(Source: Primary data)

INTERPRETATION

The above table shows that out of total 81 respondents, the top four states are followed by , 21% of respondents being migrated from Maharashtra, 19% of respondents being migrated from Kerala, 12% of

respondents being migrated from Karnataka and 7% of respondents being migrated from Andhra

Majority, 21% of the respondents are from Maharashtra.

1. LIKERT SCALE ANALYSIS

Table no: 2

Factors	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Likert Scale Value
Safe working conditions	6	59	13	2	1	3.83
Safety for women	4	57	14	4	2	3.70
Cleanliness of working atmosphere	2	52	27	0	0	3.69
Income Satisfaction	0	34	38	8	1	3.30
Healthy accommodations	1	35	35	10	0	3.33



INTERPRETATION

- Likert scale value is 3.83 which is greater than the mid value (3), so the respondents are having a Good level of safe working conditions.
- Likert scale value is 3.70 which is greater than the mid value (3), so the respondents are having a Good level of safety for women to work.
- Likert scale value is 3.69 which is greater than the mid value (3), so the respondents are

having a Good level of cleanliness in the working atmosphere.

- Likert scale value is 3.30 which is greater than the mid value (3), so the respondents are having a Satisfied level of income to satisfy their living.
- Likert scale value is 3.33 which is greater than the mid value (3), so the respondents are having a Good level of healthy accommodations provided.

2. CHI SQUARE ANALYSIS

Table: 3

Relationship of climatic conditions being a problem in productiveness of labours

Hypothesis:

The climatic conditions of the region does not affect the productiveness of the labourers.

Climate	Male	Female	Total
It is a problem	4	3	7
It is not a problem	39	35	74
Total	43	38	81

To find out the relationship of climatic conditions of the region is a problem to the productiveness of labourers .

Table 3.1
Chi Square Test

Calculated Value	Degree of freedom	Table Value	Result
0.0507	1	3.841	Accepted

INTERPRETATION

The calculated value of chi – square at 5% level of significance is lower than the table value . Hence the hypothesis is accepted so, the climatic conditions does not affect the productivity of the labourers.

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

SIMPLE PERCENTAGE ANALYSIS

1. 53% of the respondents are male.
2. 64% of the respondents are of between the Age 21 years – 40 years.
3. 57% of the respondents are unmarried.
4. 70% of the respondents are graduate.
5. 61% of the respondent's are earning above Rs.30,000.
6. 53% of the respondents are employed for a duration of 1-5 years.
7. 21% of the respondents are from Maharashtra.
8. 80 % of respondents do not have the language to be a communication barrier.

9. 77% of the respondents do not find culture differing from their nativity to be a problem.
10. 89% do not have problems of severe illness because of working conditions.
11. 76% find work timings to be flexible and lawful.
12. 79% of the respondents do not find work nature physically burdening
13. 91% of the respondents do not find climatic conditions differing from their nativity to be a problem.

CHI SQUARE METHOD

The calculated value of chi – square at 5% level of significance is lower than the table value.

Hence the hypothesis is accepted so, the climatic conditions does not affect the productivity of the labourers.

LIKERT SCALE

- Likert scale value is 3.83 which is greater than the mid value (3), so the respondents are having a Good level of safe working conditions.



- Likert scale value is 3.70 which is greater than the mid value (3), so the respondents are having a Good level of safety for women to work.
- Likert scale value is 3.69 which is greater than the mid value (3), so the respondents are having a Good level of cleanliness in the working atmosphere.
- Likert scale value is 3.30 which is greater than the mid value (3), so the respondents are having a Satisfied level of income to satisfy their living.
- Likert scale value is 3.33 which is greater than the mid value (3), so the respondents are having a Good level of healthy accommodations provided.

3. Srinivasan and Ellango(2012), *A Study on the Problems of Migrant Women Workers in Thuvakudi, Trichy district, IOSR Journal of Humanities and Science (JHSS)*, ISSN: 2279-0837, volume 4, issue 4, pp.no 45-50.

SUGGESTIONS

- There must be special welfare schemes and policies developed
- Schemes and decisions can be customised in a way that it benefits the people in locality just by taking the locality consideration on a whole in the mind.
- Awareness activities should be performed in a frequent intervals..
- Promoting proper medical and insurance coverage.
- Job security to be enhanced as a source of protecting the socio economy.
- A special governing body for migrant laborers can be developed in each district.

CONCLUSION

The challenges faced by the migrant labourers are more complex. An analysis of this migrating pattern makes it clear that though the migrant labourers contribute more to India's economy, they are not in a protective and prosperous zone. The Central and State Governments have to provide adequate measures to safeguard the interests of the migrant labourers, and derive context-specific solutions. A concerted national policy to facilitate and promote the wellbeing and a system that ensures access to entitlements and basic work conditions is highly recommended.

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THE IMPORTANCE AND ROLE OF PARTS OF SPEECH IN GERMAN LANGUAGE SENTENCES

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ABSTRACT

This article analyses about the role of parts of speech in sentence structure in German language and nonspecific formation of subject and predicate with examples. Also given the idea about the peculiarities of sentence structure in German and Uzbek languages. Word order plays an important role in the syntactic connection of words in a sentence, in the construction of a sentence, in the separation of sentences from each other. In German, main parts of speech have a stable word order in a sentence. The ideas are supplied with examples taken from different –linguistic styles, in particular, prose and poetry.

KEY WORDS: *language, parts of speech, construction, stable world, importance, stylistic status, actual division of speech*

INTRODUCTION

Language acts as a tool that creates interactions between people and is the most important means of communication between people.

Language has its own characteristics, order, laws and rules. We learn languages based on these. Well, so let's take a look at the place and order of the parts of speech in the sentence structure of German language. In the Uzbek language, the order of parts of speech is almost free, the replacement of parts of speech does not affect their grammatical state, but each change of order has a certain effect on the content, its attenuation, stylistic status, in which the speaker's goal is important. In this regard, it is necessary to pay attention to the actual division of speech, that is, the theme and the rhyme. Only then the goal can be approached clearly and correctly. The influence of order on the grammatical situation is a very rare phenomenon in the Uzbek language.

METHODS

In our research we have used the methods of comparative analysis in the contexts that clarifies the use of parts of speech in the German language. Moreover, we have applied distributional method, as our research is closely connected with the places of parts of speeches in the context. It should be noted that we have also used statistical method to calculate the results.

RESULTS AND DISCUSSION

We know that in both German and Uzbek, availability of parts of speech and their place and order in the sentence are very important. In understanding the changes taking place in the word order of the German language, it is useful to keep in mind its traditional nature at all times. Word order plays an important role in the syntactic connection of words in a sentence, in the construction of a sentence, in the separation of sentences from each other. In German, main parts of speech have a stable word order in a sentence and are of great importance, as the type of sentence can be determined by the position of the main parts in the sentence. In this circumstance, the word order performs a grammatical function. For example, the stable position of the predicate in the sentence with the possessive serves as the main tool in distinguishing the affirmative sentence from the interrogative, the main clause from the dependent clause. The secondary parts, on the other hand, have a free word order compared to the main parts, of which only the determiner has a stable position. Because the determiner is always used in conjunction with its identifiable part. The remaining secondary parts can come in all other places except the second part of the sentence. It is not possible to determine the type of a sentence depending on the word order of the secondary parts. Nevertheless, their place in the speech is of significant statistical importance. The speaker can place one of the secondary parts of



speech in the first part of the sentence, thereby emphasizing the meaning expressed by that part.

It is worthwhile to consider these points in German language using a few examples. For example: *Ich muss nach dem Unterricht in die Bibliothek gehen.* In this example, the subject is -ich, the predicate is -muss... ..gehen, and the rest are secondary parts. We call this sentence the correct word order, because in the first place there is a subject, in the second place there is a predicate, and in the second place there are secondary parts. On the other hand, the inverse word order has different aspects in the sentence. For example: *Nach dem Unterricht muss ich in die Bibliothek gehen.* In this sentence, in the first place we can see the secondary part (adverb), in the second place we have the predicate and in the third place again secondary parts and then the second part of the predicate. If the predicate in a sentence consists of two parts, its first part comes second, and the second part comes at the end of the sentence.

In fact, when we talk about the parts of speech in a sentence, it is clear that the state of going out of the frame is specific to any parts of speech. It is not uncommon for the main parts (subject and predicate) to come in a non-specific place. To prove that, this is the case, let us cite the following example: *Leise klappte immer noch die Mühle.* According to the analysis of this example, in a sentence, the noun can come anywhere, not at the "first" or "third" place according to the grammatical rule, as the main component, that is, at the end of the sentence. Such freedom, which is peculiar to the subject, occurs not only in the context of simple sentences, but also in the context of compound sentences. Certainly, such variability and mobility, which is peculiar to the subject, which is the grammatical subject of this or that sentence, can be observed in the predicate, or more precisely in the verb-predicate. When it comes to verbs, simple and compound verbs come to our mind. With this, another problem may arise; can variability and mobility be encountered only by simple verbs? Such cases are more common in German fiction: poetry and novels. The problem can be observed in the following examples:

1. *Blieb* freilich noch der siegreiche Artabien. (L. Feuchtwanger)
2. *Traf* ihn Anna allein *an*, dann sprach er. (B. Kaisers)
3. Sie *will sich* aussprechen mit mir. (L. Feuchtwanger)
4. *Abernützen muss* diese größte Gelegenheit. (L. Feuchtwanger)
5. Ihre Zähne *waren trocken geworden* unter ihren langen Lippen. (L. Feuchtwanger)
6. Er *will* ein ehrlicher Mittler *sein* zwischen den Juden und Römern. (L. Feuchtwanger)
7. Irgendwas muss passiert sein mit den Karten, *überlegt* sie mühsam. (L. Feuchtwanger)

8. Er *kam an* in Schloss Labour, lief sogleich zu Gilbert. (L. Feuchtwanger)

CONCLUSION

This given sentence "Ihre Zähne *waren trocken geworden* unter ihren langen Lippen" is in the past tense, that is, in the perfect tense. In sentences in the perfect tense, the verb (predicate) usually consists of two parts, the first part comes in the second place and the second part at the end of the sentence. In the sentence above, it can be observed that the position of the predicate is distorted. That is, the second part of the predicate *geworden* comes in the middle, not at the end of the sentence.

Thus, we have seen that variability and mobility within the text include not only subject or predicate, but also detachable prefixes that come with verbs. And we were convinced that even in German, the word order has a somewhat freer nature. In conclusion, it should be noted that the word order and its role in German language are important for language learners and require great attention.

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A REVIEW ON DRUG NIMBUKA AS ANTIBACTERIAL, ANTICANCEROUS AND ADJUNCTIVE FOR CHEMOTHERAPY

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ABSTRACT

In present scenario Cancer contributes to highest mortality rate. According to the vital statistics of 2016, around 14 lakh deaths have occurred due to Cancer. Cancer is conditions were new growth and division of abnormal cell is going to happen.

Nimbuka is the drug explained in Ayurveda by Acharya Bhavaprakasha as Krimigna and Prakruti-sthapaka. Nimbuka is anti-cancerous and adjunctive for chemotherapy and Rasayana (as per the information obtained from cell line studies). Nimbuka belongs to Rutaceae family which itself is proved having the anti-cancer drug property.

KEY WORDS: Nimbuka, Anticancerous, Citrus medica, Citrus limon etc

INTRODUCTION

A new growth of cell and division of cell abnormally occurs in cancer condition.

Nimbuka (Citrus limon) which is explained in Ayurveda classics, is a fruit as well as a vegetable used in day today life which is commonly known as "Acid lime of India". According to the data obtained from the Institute of health science - Baltimore, it is found that Citrus limonis having the Anti-Microbial Spectrum activity and acts as a barrier for the Bacteria and fungus effect over cancer¹.

REVIEW OF LITERATURE

In *Amradi-varga* of *BhavaPrakasha*², it is explained that *Nimbuka* destroys all types of krimi (including Parasites) choleric diarrhoea, vomiting and colic pain. It has the action of ama-pachana (Product of improper digestion and metabolism), *shula* (Colic pain), abdominal disorders³⁻⁴. It is used daily as nitya ahara dravya.

Ayurvedic properties of Nimbuka

Sanskrit		English	
Rasa	Amla	Taste	Sour
Guna	Teekshna and laghu	Property	Sharp and light
Virya	Ushna	Potency	Hot
Vipaka	Amla	Metabolic property	Sour

It helps to manage the adverse effects of chemotherapy like vomiting and diarrhoea and colic pain etc. It helps to correct Neutropenia (low white blood cell count in case of infection) and hence increase defence system as per the researches done and stated by Institute of Health Science, Boltimore¹.

CHEMICAL COMPOSITION

1. Lemon Fruit juice – 7-10% citric acid
2. Phosphoric acid
3. Mallic acid



4. Citrate, Sugar, Mucin, Alkaloids, Hesperidin, Abscises acid
5. Alkaloids
6. Hesperidin

The leaves of Nimbuka – Contains Rectin, Hesperidin, neral, Geraniol, limonene, citral etc will be present.

PHARMACOLOGICAL ACTIVITIES

1. Antimicrobial
2. Appetizer
3. Insecticidal

As per Research Profiles of recent scenario :

1) Antifungal activity : Leaf extract of Citrus limon was found to exhibit absolute fungi toxicity, showing broad antifungal spectrum⁵.

2) Antimicrobial activity: Leaf of Citrus limon is antimicrobial. It contains

- a) Ocimene – 17.1,
- b) Linalool – 11.4,
- c) Citral B -49.3%⁶.

3) Antibacterial and Anticancerous activity: The Essential oils prepared out of leaves and stem of Citrus medica variety of limonum contains Limonene 32.4%, beta – ocimene 7.3%.⁷

4) Rutin and Hesperidin : Have been isolated from the leaves of citrus limon⁸.

DISCUSSION

Nimbuka (Citrus limon) is explained as *Krimighna*, in Bhavaprakasha (an ancient text on Indian medicine). It also has vata-kapha-hara property by which it prevents progression of pathogenesis in conditions like arbuda, granthi, tridoshaja-gulma which are having similar nature of manifestation like cancer, mentioned in Ayurveda.

Krimighna action can be correlated to anti bacterial and antimicrobial activity. *Vata-kapha-hara karma* governs uncontrolled division of newly growing abnormal cells in the pathogenesis of cancer and also in stage of metastasis.

Nimbuka helps to prevent adverse effects of chemotherapy. Also destroys the carcinogenic cells without affecting the healthy cells. It controls the stress, colic pain, vomiting and diarrhoea which are caused immediately before and after chemotherapy. Also controls Neutropenia and brings back normal functioning of defence system.

According to Research database, since 1970 more than 20 experiments are conducted, among which 12 types are from cell line studies. It states that lemon is most safe (and effective than Adriamycin, commonly used chemotherapy medicine). It also slows down the aggregation and rapid development of cells in cancer.¹

Leaves of citrus also play an important role in Antimicrobial activity.

CONCLUSION

Nimbuka is an easily available drug as well as nitya-ahara-upayogi-dravya having its contribution in treating cancer. According to Baltimore institute of health sciences, not only lemon juice but also its Leaf extracts have anti microbial and antifungal effect in condition of cancer.

Ayurveda also says that, nimbuka acts as krimighna, chardi-nigrahana (anti emetic) and agnideepaka (appetizer). Lemon juice when administered appropriately is effective in tridosha-vaishamya, agnimandya, vatavyadhi, baddhaguda and visuchika.

Lemon, a commonly used drug is useful in simple ailments like indigestion to complex stages of cancer. The spectrum of uses of Citrus limon has to be explored, experimented and documented and widely used.

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A STUDY ON CONSUMER AWARENESS ON MEESHO APP AMONG WOMEN IN COIMBATORE CITY

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Coimbatore

ABSTRACT

In today's era of globalization not only the nations in the world and thereby their communities have come closer to one another but also most of the sector have undergone significant changes. With the significant growth of internet usage, internet marketing is found to expand its horizons. In this we are going to see about the new selling app called Meesho app. This study will help the business people to make decision regarding their product improvement. This study will help the Meesho app to know about the view of Meesho among the consumers. This study was analyzed with 140 respondents. Simple percentage method and likert scale analyses were used for this study. The conclusion is the students strongly prefer the app based learning. Their preference has determined by the flexibility in using different learning applications.

KEYWORDS: Meesho App, Women, Online marketing.

INTRODUCTION

In today's era of globalization not only the nations in the world and thereby their communities have come closer to one another but also most of the sector have undergone significant changes. Purchasing product or services over the internet, online shopping has attained immense popularity in recent days mainly because people find it convenient and easy to shop from the comfort of their home or office and also eased from the trouble of moving from shop to shop in search of good of choice. Retail is a process of selling goods and services to customers through multiple channels of distribution. Meesho is an Indian-Origin social commerce platform founded by IIT Delhi graduates Vidit Aatrey and Sanjeev Barnwal in December 2015. It enables small businesses and individuals to start their online stores via social channels such as WhatsApp, Facebook, Instagram etc... Meesho is headquartered in Bengaluru, India and was one of the three Indian companies to be selected for Y combinator in 2016. It was also a part of the first batch of Google Launchpad – solve for Indian program. In June 2019, Meesho became India's first start up to receive investment from internet. The special feature in this application is we can set our margin price for the product and can earn more profit.

STATEMENT OF THE PROBLEM

Online selling app has gained a lot of importance in the present marketing condition. But every application are not known to the public. And the awareness about the new applications are very rare. This is one of major problem for the business people who are introducing the new applications through online marketing. The problem area of the survey is consumer awareness and satisfaction towards the Meesho app.

OBJECTIVES

- To identify the awareness of the consumer about Meesho App.
- To determine the factors influencing to choose Meesho App.
- To know the customer satisfaction level with Meesho App.

RESEARCH METHEDODOLOGY

Data was collected from both primary and secondary data sources. For the purpose of analysis, the data has been collected from 140 customers from the selected sampled respondents in Coimbatore city. The samples



have been selected on the basis of convenient random sampling techniques.

Sampling techniques

For the purpose of analysis, the data has been collected from 140 customers from the selected sampled respondents in Coimbatore city. The samples have been selected on the basis of convenient random sampling techniques.

Sample size

The sample of 140 respondents was chosen for the study.

Area of the study

The study is conducted in Coimbatore urban areas.

Statistical tools applied

Simple percentage analysis

Likert scale analysis

LITERATURE REVIEW

It is essential for a research scholar to do a review on the related literature for his study to have a comprehensive knowledge about the research. It helps the researcher to take the initial step of fixing the problem on which the study is to be done. The review of literature gives the researcher, a broader outlook on the background and situations under which the study has been conducted.

PushpakSinghal and Dr. SupriyoPatra (2018) says that the various factors that affect the online shopping behaviour of the consumers by using Buyer black box model. The objective of the study is to understand consumer awareness and preferences towards various products available in online. This research proved very interesting and un-surfaced certain interesting behaviour pattern among the people of kolkatta. People generally look for convenience and fast delivery for purchasing online. The major reason behind their perception was based on various discounts, easy payment facilities, easy return facility, timely and express delivery.

Prof.AshishBhatt (2017) says that commerce via internet, or e-commerce, has experienced rapid growth since the early years. It is well known to most of the internet researcher that the volume of online business to consumer transaction is increasing annually at very high rate. However there is still a need for closer examination on the online shopping buying behaviour in developing countries like India. The implementation of information system depend on specific social, cultural, economic, legal and political context, which may differ significantly from one country to another country. Online shopping is rapidly changing the way people do business all over the world.

Dr.P.Senthilkumar (2017) pointed out the consumer had sufficient time to visit shopping center's searching for various product. Many consumers prefers bargaining and decide the purchase after physical examination of the commodities. The entire process can range from few hours to week depending on the quality, quantity and source of purchase. Today there is radical change in entire scenario. Everything in today's world internet oriented like electronic data interchange E-Mail, E-Business and E-Commerce. E-Commerce is exchange of information using networking based technologies.

NandhiniBalasubramanian and Isswarya (2017) based on their it is an attempt to analyze customer satisfaction level of Amazon and Flipkart. The objective of the study is to identify the respondents perception towards Amazon and Flipkart shopping. In this competitive market Flipkart satisfies the customer in terms of websites usages, delivery and order tracking. But Amazon also gives tough competition to Flipkart which satisfies the customer in the aspect of quality of the product. End of the study the review reveals that both are doing very well in Indian E-Commerce market.

DATA ANALYSIS AND INTERPRETATION

SIMPLE PERCENTAGE METHOD

TABLE SHOWING THAT FACTORS INFLUENCING THE CONSUMER TO USE MEESHO APP

FACTORS INFLUENCED	NO. OF RESPONDENTS	PERCENTAGE
Fixing own Profit margin	29	20.7%
Low Risk	37	26.4%
Convenience to work from Home	30	21.4%
No Investment	17	12.1%
Others	27	19.3%
Total	140	100%



INTERPRETATION

From the above table 20.7% of the respondents are saying that Fixing own Profit margin is the factor influenced them to use the Meesho App, 26.4% of the respondents are saying that Low Risk is the factor influenced them to use the Meesho App, 21.4% of the respondents are saying that Convenience to work from home is the factor influenced them to use the Meesho App, 12.1% of the respondents are saying

that No Investment is the factor influenced them to use the Meesho App, 19.3% of the respondents are saying that there are other factors which influenced them to use the Meesho App,

- Majority 26.4% of the consumers are saying that Low risk is the important factor influence them to use MeeshoApp .

LIKERT SCALE ANALYSIS

TABLE SHOWING THAT CONSUMER SATISFACTION LEVEL OF USING MEESHO APP BASED ON FACTOR - CHOICES OF PRODUCTS

SATISFACTION LEVEL	NO.OF. RESPONDETS	LIKERT SCALE (X)	TOTAL SCORE (Fx)
Highly Satisfied	46	5	230
Satisfied	66	4	264
Neutral	26	3	7
Dissatisfied	1	2	2
Highly Dissatisfied	1	1	1
Total	140		504

$$\begin{aligned}\text{Likert scale} &= \sum (fx) / \text{No of respondents} \\ &= 504/140 \\ &= 3.6\end{aligned}$$

INTERPRETATION

The likert scale value is 3.6 which is greater than the mid value (3), so the respondents are satisfied by meesho app based on the factor choices of product.

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

Findings of simple percentage analysis:

- ✓ It is found that Majority 58.9% of the respondents are Female
- ✓ It is found that Majority 82.1% of the respondents belongs to the age category of Below 25 years.
- ✓ It is found that Majority 84.3% of the respondents are Unmarried.
- ✓ It is found that Majority 50.7% of the consumers are giving importance to the Discount as an important factor influenced in online selling.
- ✓ It is found that Majority 34.2% of the consumers are giving importance to the Schemes and Offers as an important factor influenced in online selling.

- ✓ It is found that Majority 46.4% of the consumers are giving importance to the Service as an important factor influenced in online selling.
- ✓ It is found that Majority 50% of the consumers are giving importance to the Trust as an Mostly important factor influenced in online selling.

Findings of Likert scale analysis:

- The likert scale value is 3.7 which is greater than the mid value (3), so the respondents are neutral by meesho app based on the factor Price.
- The likert scale value is 3.8 which is greater than the mid value (3), so the respondents are satisfied by meesho app based on the factor Profit.
- The likert scale value is 3.6 which is greater than the mid value (3), so the respondents are satisfied by meesho app based on the factor Services.
- The likert scale value is 3.7 which is greater than the mid value (3), so the respondents are saying that decrease in product quality is the



problem facing very often while using meesho app.

- The likert scale value is 3.5 which is greater than the mid value (3), so the respondents are saying that delay in delivery is the problem facing often while using meesho app.
- The likert scale value is 3.5 which is greater than the mid value (3), so the respondents are saying that promoting advertisement is the problem facing frequently while using meesho app.
- The likert scale value is 3.2 which is greater than the mid value (3), so the respondents are saying that poor packaging is the problem facing often while using meesho app.

SUGGESTION

- Peoples are getting awareness only through their mobile phones. It will not reach more people so the awareness should be done in all modes of advertisements like Television, Radio, Newspapers, Magazines, etc....
- This Meesho app is fully focus on Home makers it is a good effort but it should reach all the age group peoples.
- Good application keeps this achievement and work more to make some new developments in online selling field.
- Delivery charge can be reduced.
- Product Quality can be improved even more better

CONCLUSION

On this study we came to know that the awareness about the meesho app is very less among the people. But the users of meesho app were very comfortable and they are benefitted by the application. Promotional activities must be improved to increase the users of meesho app. Most of the respondents are women so women are becoming an successful entrepreneur so that our economy also becoming developed. The procedures can be simple so that the illustrate users can do they business easily and comfortable and they will recommend others to use this application. This study will support the meesho app to know how is the reach of the application and can change their mistakes and improve the users of the meesho app to earn more profit.

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4. NandhiniBalasubramanian and Isswarya (2017) based on their it is an attempt to analyze customer satisfaction level of Amazon and Flipkart.



A STUDY ON CONSUMERS SATISFACTION TOWARDS SAMSUNG LED TELEVISION WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

The LED has become a pivotal illumination technology with a wide variety of applications. Since their initial invention, LEDs have been used in many diverse applications such as watches, calculators, remote controls, indicator lights, and backlights for many common gadgets and household devices. This paper explores the customer's preference towards Samsung LED TV. The problem enacted from the concept is that whether the customers are benefitted with the Samsung LED TV. This study was analysed with 120 respondents. Simple percentage method, likert scale analyses and Rank analysis were used for this study. The conclusion is respondents suggested some improvements which can be done. By doing this the company can achieve the 100% satisfaction level of using Samsung LED TV. And also, the customers might not be switch over to another brands. It will create goodwill for the company.

KEY WORDS: Samsung LED TV, satisfaction.

INTRODUCTION

The LED has become a pivotal illumination technology with a wide variety of applications. Since their initial invention, LEDs have been used in many diverse applications such as watches, calculators, remote controls, indicator lights, and backlights for many common gadgets and household devices. LED TV is a type of LCD television that uses light-emitting diodes backlight the display instead of the cold cathode fluorescent lights used in standard LCD television. LED TVs are more formally known as LED- backlight LCD television. Hence the study is undertaken for the purpose of analysing the satisfaction level towards the customer towards LED television.

STATEMENT OF THE PROBLEM

Consumer satisfaction is the independent variable which is a highly complicated. It should be the influence of variable price, brand image, quality of the product. Today's market is open market, consumer taste and satisfaction is always changeable in condition. A study of consumer satisfaction of Samsung LED TV, in order to find out the solution, whether there is some satisfaction among the users of Samsung product or not.

SCOPE OF STUDY

The main aim is to examine the customer's level of satisfaction on Samsung LED TV with special reference to Coimbatore city. This study helps in understanding the needs and the expectation to be done on Samsung LED TV.

OBJECTIVE OF THE STUDY

- To measure the level of satisfaction of the customers on Samsung LED TV.
- To find out the factors which are influencing to buy Samsung LED TV.
- To bring out the expectation level of customers and give some valuable suggestion.

LIMITATIONS OF THE STUDY

- The survey is based on the respondents chosen at random from Coimbatore city. Hence the results of the study cannot be generalized.
- The sample size has been restricted to 120 respondents.
- The respondent's views and opinions may hold good for the time being and may vary in future.



RESEARCH METHEDODOLOGY

Data collection

Both the primary and secondary data were used.

Primary source

The objective of the study has been accomplished with the help of samples collected from 120 respondents.

Secondary source

The secondary data was collected from the articles, journals and websites.

Survey design

A convenient sampling technique tool was adopted for data collection.

Sample size

The study was conducted with a sample size of 120 respondents in Coimbatore city.

Area of the study

The study is conducted only with Coimbatore city.

Tools for analysis

- Simple percentage analysis
- Likert scale analysis
- Rank analysis

LITERATURE REVIEW

Dr.S.Rabiyathul Basariya, Dr.Ramyar Rzgar Ahmed (2019)¹ in the study titled, "A study on consumer preference towards Led TV", the main objective of the study is know the preference level of the customer, brand awareness, and factors influencing on the usage of Led TV. They collects both primary as well as secondary data and collects by questionnaire, journals, websites etc., and uses chi-square method, mean, medium, mode, percentage analysis for the data collected. The study suggest that the salient features must be improved, additional service and warranty period must be expanded. The Led technology has made great changes in the world of televisions.

J.Mahendran (2017)² the study paper mainly focused on the purpose, usage, lifetime of LED TV. The objective of the study is to find out the consumer preference and satisfaction towards LED TV with special reference to Coimbatore city. The primary and secondary data is collected by using questionnaire from 50 respondents and collected data from websites, books. They uses convenience sampling method for analysis. The LED technology in TV is increasing rapidly and the consumers are satisfied on it.

Mr.U.D. Dinesh Kumar journal of business management (2017)³made the study on a customer satisfaction towards Samsung TV. The primary objective of this study is to find out the customer preference and satisfaction towards laptops with respondent

by using questionnaire method. Samsung electronics co limited in South Korean multinational electronics company headquarters in Suwon. It is a flagship subsidiary of the Samsung group and has been the world's largest information technology company by revenue of the company. The company is the world's largest vendor of smartphones since 2011. Samsung has also established a prominent position in the tablet computer market, with the release of the android-powered Samsung galaxy tab.

S. Thenmozhi(2017)⁴in the study titled "A study on consumer's expectations, perception and satisfaction of led television in Karur town", the study is about the led technology and its impacts on television. The main objective is to know about the satisfaction on buying the led tv and expectations, and perception on led TV. It highlights the developments in the application. It focuses on the purpose, usage, lifetime of LED TV. The primary and secondary data was collected and a survey was conducted to 120 respondents by using questionnaire, and uses convenience sampling method for analysis.

Dr.P.Parimaladevi (2017)⁵ in the study titled "A study on consumer satisfaction towards led television with special reference to erode city", Consumer satisfaction is an abstract concept and the actual manifestation satisfaction will vary from person to person and products and services.

P.Jayasubramanian, P.Kanagaraj, J.Mahendran (2015)⁶ in the study titled "A study of customer satisfaction towards led technology with reference to led TV Coimbatore of Tamilnadu", it is about the impact of led in television. The object of the study is to know about the level of satisfaction and preference towards LED TV on consumers. The primary and secondary data is collected with the help of questionnaire and journal, magazines and internet. The data is collected from 50 respondents and it is pre-tested with some respondents through pilot survey, chi-square test is used for analysis. The LED technology improves brightness and reliability, the LED technology on LED TV made great change in the world of television.

Mr.U.Dinesh Kumar, K.Prabhu (2011)⁷ in the study titled "A study on customer satisfaction towards Samsung TV", the object of the study of dealers awareness and perception about colorTV. The researcher has collected primary data from questionnaire and cum interview and the sample size is 150 respondents from Salem district and uses simple percentage and bar chart test. The study suggests reducing the price and giving offers to increase the company growth. The study concludes that the customer is satisfied with their brands.

s. thenmozhi "a study on consumers expectations, perception and satisfaction of led television in Karur town.

⁵ **Dr. P. Parimaladevi** "a study on consumers satisfaction towards led television with special reference to eroad city.

⁶ **P.Jayasubarmaniyam, P.Kanagaraj, J.Mahendran** "a study of customer satisfaction towards led technology with reference led tv Coimbatore of tamilnadu.

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¹ **Dr. S. Rabiyathul Basariya, dr.**

Ramyarrrzgerahmed "a study on consumer preference towards led tv.

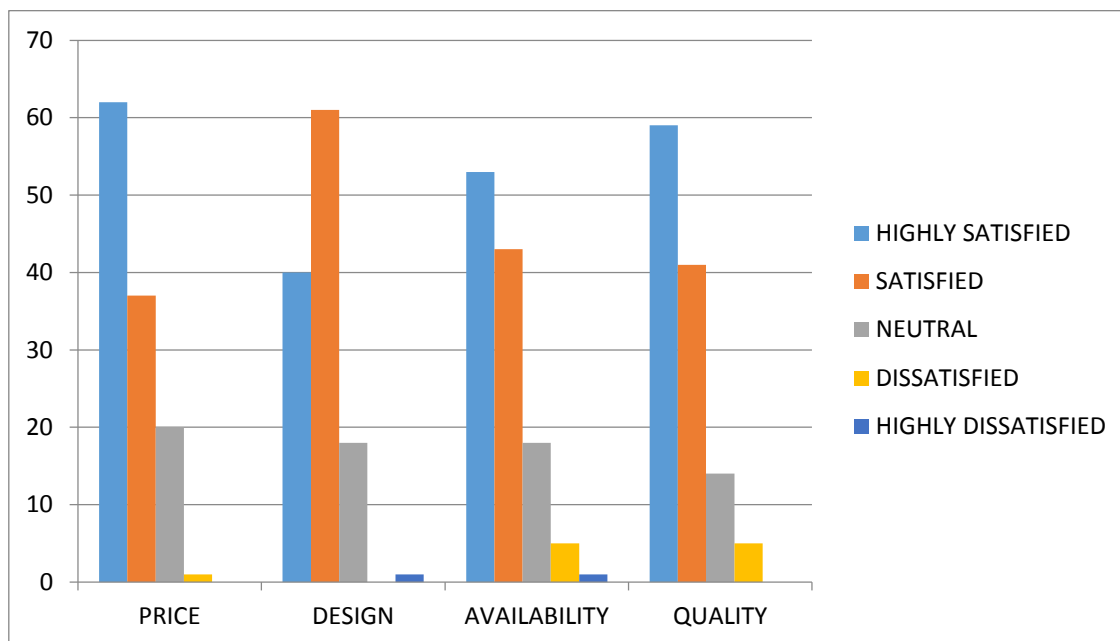
² **J mahendran** "the study paper mainly focused on usage, lifetime of led tv.

³ **MR U.D. Dinesh kumar** "a study on a customer satisfaction towards Samsung tv.

DATA ANALYSIS AND INTERPRETATION

SIMPLE PERCENTAGE METHOD

CHART SHOWING RATINGS OF THE RESPONDENTS TOWARDS FACTORS FOR BUYING THE SAMSUNG LED TV



(Source: Primary Data)

INTERPRETATION

From the above chart, maximum number of respondents are highly satisfied with price, maximum number of respondents are satisfied with design,

maximum number of respondents are satisfied with availability, maximum number of respondents are satisfied with quality.

DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR KNOWING ABOUT SAMSUNG LED TV

PARTICULARS	NO OF RESPONDENTS	PERCENTAGE (%)
ADVERTISEMENT	44	37
FRIENDS	31	26
FAMILY	28	23
SOCIAL MEDIA	12	10
OTHERS	5	4
TOTAL	120	100.00

(Source: primary data)

INTERPRETATION

From the above table, it is revealed that, 37% of the respondents purchase decision is made by advertisement, 26% of the respondents purchase decision are made by Friends, 23% of the respondents purchase decision are made by family,

10% of the respondents purchase decision are made by social media and 4% of the respondents purchase decision are made by others.

Hence, majority (37%) of the respondents purchase decision are made by advertisement.



LIKERT SCALE ANALYSIS

TABLE SHOWING SATISFACION OF THE RESPONDENTS WITH SAMSUNG ELECTRONICS TECHNICAL SUPPORT

S.NO	PARTICULARS	NO. OF RESPONDENTS	LIKERTS METHOD	TOTAL SCORE
1	SATISFIED	51	5	255
2	HIGHLY SATISFIED	30	4	120
3	NEUTRAL	29	3	87
4	DISSATISFIED	7	2	14
5	HIGHLY DISSATISFIED	3	1	3
	TOTAL	120	15	479

(Source: Primary data)

Formula:

Likerts scale = $\sum(fx) / \text{total number of respondents}$

$$= 479 / 120$$

$$= 3.99$$

From the above table, satisfaction with Samsung electronic technical support shows in likerts scale value is 3.99 which are greater than the mid value (3).

Hence, the respondents are satisfied with the Samsung electronic technical support.

INTERPRETATION

RANKING ANALYSIS

TABLE SHOWING THE RANK OF THE FACTORS

S.NO	FACTORS	RANK I	RANK II	RANK III	RANK IV	TOTAL	RANK
1	BRAND IMAGE	4(70) 280	3(17) 51	2(24) 48	1(16) 16	395	2
2	AVAILABILITY	4(31) 124	3(57) 171	2(23) 46	1(15) 15	356	3
3	PRICE	4(32) 64	3(43) 129	2(37) 74	1(15) 15	282	4
4	QUALITY	4(44) 352	3(30) 90	2(23) 46	1(30) 30	518	1

(Source : Primary data)

INTERPRETATION

The table shows that out of 120 respondents, Quality is in the rank 1, Brand image is in the rank 2, Availability is in the rank 3, and Price is in the rank 4.

This is resulted the Quality is in the rank 1 that respondents.

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

- Majority 53.3% of the respondents are preferred only for quality.
- Majority 37% of the respondents purchase decision are made by advertisement.
- Majority 83% of the respondents are satisfied with the service of Samsung electronics.
- Majority 80% of the respondents are agree with Samsung TV is better than other TV.

- Majority 42% of the respondents are encouraged to buy only for clarity.
- Majority 80% of the respondents are seen the Advertisement.

FINDINGS FROM LIKERT SCALE ANALYSIS:

- Likert scale value 3.99 is greater than the middle value 3, so the consumers are highly satisfied with technical support by Samsung electronics

FINDINGS FROM RANKING ANALYSIS

- This is resulted that Quality is in the rank 1 that respondents.

SUGGESTIONS

- This study suggested that the Samsung electronics should concentrate on producing products at high quality.
- Most of the respondents came to know about the Samsung TV via Advertisement.



- The study suggested that distributors can be increased.
- It seems like only high class and upper middle class can buy Samsung products so the price should also be affordable to lower middle class people below poverty line.
- There should be improvement and update with latest technical design.

CONCLUSION

People are more influenced by the advertisement as compared to other sources. So Advertisement is the most popular source for reaching to the customers. Quality, Features of TV brand is very much important to attract the customers towards their brand. Here the income level of the customer is average. So they will prefer to buy medium cost colour TV brand. It can be easily said that all middle class people are also using the LED TV to replace human resources. In this study an attempt is made to measure the customer analysis and preference about these brands. It is found that customers are satisfied with their brands.

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AN IMPACT OF GREEN MARKETING ON CONSUMER SATISFACTION AND ENVIRONMENTAL SAFETY AT COIMBATORE

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ABSTRACT

Green revolution, going green, environmental protection, sustainable life style, sustainable development, protecting our earth and many more have become a natural phenomenon in our everyday life. Green marketing is a tool used by many companies in various industries to follow this trend. There have been a lot of literature review on green marketing over the years and analysis the impact of green marketing strategies on customer satisfaction and environmental safety.

INTRODUCTION

Green marketing is also called as environmental marketing or ecological marketing. It occupied a vital place in all stages of human life. Green marketing possesses some of the special characteristics. It covers all business activities in order to ascertain the demand, product planning, distribution and facilitating the entire marketing process. It also emphasizes the need for integrated and well-coordinated marketing programme. Green marketing is the marketing of commodities that are speculated to be environmentally safe. The tremendous development in green marketing has made a new way for the companies to develop their co-brand products into separate line, lauding the green-friendliness of some while ignoring that of others. Today, customers are aware of green products, so the marketers are using various techniques to capture the market. Customers are more selective in their buying choices and a good promotional programme is needed to reach them, hence the retailers are using incentive-type of sales to attract the new customers, to regain loyal customers and to boost the repurchase rates of occasional users.

STATEMENT OF PROBLEM

The limited natural resource of the earth has to be used to satisfy the human needs causing minimal environmental damage. Otherwise, mankind will face consequence of environmental degradation. Mass

production is inevitable to satisfy earth's enormous expanding population. The problem is there are a few industries which do not know how to enhance their corporate image. Scenario now shows that many industries were trying to have a good marketing strategy, many organizations want to turn green, as an increasing number of consumers want to associate themselves with environmental-friendly products. But there are a few roadblocks:

- 1) Confusion among the consumers regarding the products.
- 2) Markets of green products need to be much more transparent, and refrain from breaching any law or standards relating to products or business practices.

Many organizations want to turn green, as an increasing number of consumers want to associate themselves with environmental-friendly products. Alongside, one also witness confusion among the consumers regarding the products. In particular, one often finds distrust regarding the credibility of green products.

OBJECTIVE OF STUDY

- 1) To study and analyze the customer satisfaction towards green marketing products
- 2) To know the buying behavior of the customers regarding the green products
- 3) To study the need of the consumers at the place of purchase

- 4) The study also describes the main problems and challenges coming while implementing the Green marketing
- 5) To study on green marketing in the retail industry with special reference to Coimbatore city.

TOOLS OF TECHNIQUES USED

The following are the tools applied on the respondents given to analyze and derive the result.

1. Simple Percentage Analysis
2. Ranking Analysis

LIMITATION OF STUDY

Unawareness- people are unaware of the green marketing

Time constraint- the time duration taken for the research on green marketing is very limited, where the green marketing a broad topic which requires an in depth research and analysis.

REVIEW OF LITREATURE

Green Marketing - Insights Dileep Kumar (2010) analysed that how far the hotel business organizations in the tourism sector meet the customer's needs through green marketing effort and how they influence the consumer behaviour and their satisfaction by inducing environmentally responsible behaviours.

According to Joseph & Rupali korlekar(2012), there is a scope for in-depth studies on green marketing to be conducted in developing countries like India, not only on understanding consumers' perception but to study the detailed profile of such consumers who have a more positive attitude towards green marketing and green products.

Selvakumar & Ramesh Pandi (2011) indicated that Green Marketing is not all about manufacturing green products and services but encompassing all those marketing activities that are needed to develop and sustain consumers 'Eco-friendly attitudes and behaviour's in a way that helps in creating minimal detrimental impact on the environment.

The study by Murugesan (2008) underlined that firms may use green marketing as an attempt to address cost or profit related issues. Disposing of environmentally harmful by products, such as polychlorinated biphenyl contaminated oil are becoming increasingly costly and the firms that can reduce harmful wastes may incur substantial cost savings.

Charles W Lamb et al (2004) explained that —Green Marketing|| has also become an important way for companies to build awareness and loyalty by promoting a popular issue. By positioning their brands as ecologically sound, marketers can convey concern for the environment and society as a whole.

DATA ANALYSIS AND INTERPRETATION

Out of 120 respondents, Internet is in the Rank I, Specialized shop is in the Rank II, Factory outlets is in the Rank III, Local shops is in the Rank IV, Retail malls is in the Rank V, Teleshopping is in the Rank VI.

Out of 120 respondents, Concern for health is in the Rank I, Concern for environment is in the Rank II, To use better quality products is in the Rank III, Concern for status is in the Rank IV.

Classification of respondents of the basis of their Gender Wise

Total respondents 120

Table 4.1 Percentage Analysis of Gender

GENDER	NO. OF RESPONDENT	PERCENTAGE (%)
Female	52	43.3
Male	68	56.7
Total	120	100

Sources: Primary Data

Analysis and Interpretation

The above table interprets that 56.7% of the respondents are male and 43.3% of the respondents are female. Majority of respondents are male.

Classification of respondents of the basis of their Age
Total respondents 120

Table 4.2 Percentage Analysis of Age

AGE	NO. OF RESPONDENT	PERCENTAGE (%)
Below 20 years	36	30
21-35 years	52	43.3
36-50 years	18	15
Above 50 years	14	11.7
Total	120	100

Sources: Primary Data

Analysis and Interpretation

The above table interprets that 43.3% of the respondents their age belongs to 21-35 years, 30% of the respondents their age belongs to below 20 years, 15% of the respondents their age belongs to above 36-50 years and the remaining 11.7% of the

respondents their age belongs to above 50 years. Majority of respondents their age belong to 21-35 years.

Classification of respondents of the basis of their Education Qualification

Total respondents 120

Table 4.3: Percentage Analysis of Education Qualification

EDUCATION QUALIFICATION	NO. OF RESPONDENT	PERCENTAGE (%)
Secondary level	10	8.3
Under graduate	76	63.3
Post graduate	34	28.3
Total	120	100

Sources: Primary Data

Analysis and Interpretation

The above table interprets that 8.3% of the respondents their Education Qualification is Secondary level, 63.3% of the respondents their Education Qualification is Under graduate, 28.3% of the respondents their Education Qualification is Post

graduate. Majority of respondents their Education Qualification is Under graduate.

Classification of respondents of the basis of their Marital Status

Total respondents 120

Table 4.4: Percentage Analysis of Marital Status

MARITAL STATUS	NO. OF RESPONDENT	PERCENTAGE (%)
Unmarried	71	59.2
Married	49	40.8
Total	200	100

Sources: Primary Data

FINDINGS

Majority (49%) of the respondents are Undergraduate.

Majority (51%) of the respondents are urban.

Majority (66.67%) of the respondents are unmarried.

Majority 45% of the respondents are others.

Majority 48% of the respondents are Below Rs 25,000.

Majority 38.33% of the respondents are Below Rs 25,000.

Majority 28% of the respondents are to earn income.

Majority 33% of the respondents are Increase in salary.

Majority 34% of the respondents choose Bank Deposits.

Majority 73% of the respondents are satisfied with their present scheme

SUGGESTION

Green products which helps to improve the quality of life and environment and want to improve the varieties of green products.

Government should increase awareness on uses of green products and offer more subsidy and sources of selling them.



Green product quality should be better than standard product and also avoid adulteration of green products.

Green products are not yet popular among consumers. Hence, steps should be taken to popularize the organic products.

Aggressive awareness campaign combined with government efforts to promote, support green movements.

CONCLUSION

Now this is the right time to select "Green Marketing" globally. It will come with drastic change in the world of business if all nations will make strict roles because green marketing is essential to save world from pollution. From the business point of view because a clever marketer is one who not only convinces the consumer, but also involves the consumer in marketing his product. Green marketing should not be considered as just one more approach to marketing, but has to be pursued with much greater vigor, as it has an environmental and social dimension to it. With the threat of global warming looming large, it is extremely important that green marketing becomes the norm rather than an exception or just a fad. Recycling of paper, metals, plastics, etc., in a safe and environmentally harmless manner should become much more systematized and universal. It has to become the general norm to use energy-efficient lamps and other electrical goods.

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A STUDY ON CUSTOMER'S SATISFACTION AND THEIR PREFERENCE TOWARDS IBAACO ICE CREAM IN COIMBATORE CITY

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ABSTRACT

Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from the person to person and product to product. The level of satisfaction can also vary depending on other option the customer may have and other products against which customer can compare the organizations product. In this article the researcher analyses the different brands of ice cream available in the market, motivating factors available and level of satisfaction among the customers towards ice cream.

INTRODUCTION

Ice cream (derived from earlier iced cream or cream ice) is a sweetened frozen food typically eaten as a snack or dessert. Ice cream may be served in dishes, for eating with a spoon, or licked from edible cones. Ice cream may be served with other dessert.

Ibaco ice cream is a part of Hatsun Agro Product Ltd. There are many outlets of Ibaco ice creams in the country. Ibaco is dedicated to conjuring up a delightful, unique ice cream eating experience. One based on the scoop 'n' serve format. With 36 flavours inspired from exotic places around the world, Ibaco aims to offer more choices and deliver greater standards of taste to its customers.

STATEMENT OF THE PROBLEM

Ibaco being one of the players in the market has a very large customer base. Conducting this research to find the consumer satisfaction and preference towards Ibaco ice cream will help to overcome problems in Ibaco ice cream. Since customer satisfaction is a key role in the market the researcher has taken this project.

OBJECTIVES

- To identify the customer's preference regarding Ibaco ice creams.
- To analyse the customer's satisfaction towards Ibaco ice creams
- To determine the factors influencing the preference towards Ibaco ice creams.

TOOLS AND TECHNIQUES

- 1) Simple percentage analysis
- 2) Likert scale analysis
- 3) Ranking analysis

REVIEW OF LITERATURE

Prinsa Maheshwari Patel, Deep Prafulbhai Malani (2019) "Consumer attitude towards Havmor Ice cream Pvt Ltd in Surat". In this attitude study about consumers attitude towards Havmor Ice cream. The objective is to study characteristic of individual consumers such as demographics, psychographics and behavioral variable of the consumer. The findings of the study states the consumers have a positive attitude towards Havmor Ice cream and the knowledge of consumers about the project.



Aslam Khan (2014) “Consumer Perception about Amul Ice cream in Comparison to Vadilal Ice cream in Ghaziabad”. In this comparison towards Amul Ice cream and Vadilal Ice cream the objectives is to find the perception about Ice cream brands and find perception of consumer towards determination of market potential. The findings of the study states that the customers think that Amul is the best brand among the suggested option.

Dr. S.Selvnendran (2018) “Customer’s Preference towards Ice creams”. In this preference study towards ice creams the objective is to know the customers preference towards ice cream and to know the brand of Ice cream consumed by sample respondents. The Findings state that majority of the Ice cream and most of the consumers are females and that majority respondents buy Ice cream because of attractive colour

Vivek Sahani, Karan Shinds, Prabhakar (2014-2015) “Amul Ice cream” In this study towards Amul Ice creams the objective is to know the customers satisfaction level. To know the reasons for decline why consumers don’t purchase the ice cream, to know suggestions to improve the product. The findings state

that retailers are interested for keening Amul ice cream and that the people are highly satisfied with the product, quality of Amul ice cream

DATA ANALYSIS AND INTERPRETATION

The chapter deals with analysis and interpretation of the study “A Study on Customer Satisfaction towards Sony Products with Reference to Coimbatore City”. Based on the data collected, the collected data have been analyzed using the following statistical tools.

1. Simple Percentage Analysis
2. Likert Scale Analysis
3. Ranking Analysis

SIMPLE PERCENTAGE ANALYSIS

The percentage analysis is mainly to find the distribution of different categories of respondents. As the value expressed in percentage it facilitates comparison and standardization. This analysis describes the classification of respondents filling under each category.

FORMULA

$$\text{PERCENTAGE} = \frac{\text{No of respondents}}{\text{Total number of respondents}} * 100$$

TABLE SHOWING GENDER OF RESPONDENTS

S.NO	GENDER	NO.OF RESPONDENTS	PERCENTAGE
1	Male	55	42.31%
2	Female	75	57.69%
	TOTAL	130	100%

INTERPRETATION

The above table shows that 42.31% (55) respondents were male and 57.69% (75) respondents

were female.

TABLE SHOWING HOW THE RESPONDENTS COME TO KNOW ABOUT IBACO ICE CREAM BAR

S.NO	SOURCE	NO. OF RESPONDENTS	PERCENTAGE
1	Social Media	32	24.62%
2	Newspaper	11	8.46%
3	Television	53	40.77%
4	Others	34	26.15%
	TOTAL	130	100%

INTERPRETATION

The above table shows that 24.62% (32) respondents came to know about Ibaco ice cream bar

through Social Media, 8.46% (11) respondents came to know about Ibaco ice cream bar through Newspaper, 40.77% (53) respondents came to know about Ibaco ice



cream through Television, 26.15% (34) respondents came to know about Ibaco ice cream through Other source.

LIKERT SCALE ANALYSIS

A Likert scale is a method of measuring attitudes, ordinal scale of responses to a question or a statement, order in hierarchical sequence from strongly negative to strongly positive used mainly in behavioral science and psychiatry in Likert scale analysis. A person's attitude is measured by combining (adding or averaging) their responses across all items.

FORMULA

$$\text{LIKERT} = \Sigma (fx) / \text{Total number of respondents}$$

F = Number of respondents

X = Likert Scale Value

$\Sigma (fx)$ = Total Score

TABLE SHOWING WHICH SATISFIES THE CONSUMERS MORE QUALITY

S.NO	SATISFACTION LEVEL OF CONSUMERS	NO. OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL VALUE
1	Highly Satisfied	49	5	245
2	Satisfied	67	4	268
3	Neutral	14	3	42
4	Dissatisfied	0	2	0
5	Strongly Dissatisfied	0	1	0
	TOTAL	130		555

INTERPRETATION

$$\begin{aligned} \text{LIKERT} &= \Sigma (fx) / \text{Total number of respondents} \\ &= 555/130 \\ &= 4.26 \end{aligned}$$

INFERENCE

Likert Scale value is 4.26 which is greater than 4, So the respondents are Highly Satisfied

TABLE SHOWING WHICH SATISFIES THE CONSUMERS MORE TASTE

S.NO	SATISFACTION LEVEL OF CONSUMERS	NO. OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL VALUE
1	Highly Satisfied	60	5	300
2	Satisfied	52	4	208
3	Neutral	18	3	54
4	Dissatisfied	0	2	0
5	Strongly Dissatisfied	0	1	0
	TOTAL	130		562

INTERPRETATION

$$\begin{aligned} \text{LIKERT} &= \Sigma (fx) / \text{Total number of respondents} \\ &= 562/130 \\ &= 4.3 \end{aligned}$$

INFERENCE

Likert scale value is 4.3 which is greater than 4, So the respondents are Highly Satisfied.

RANKING ANALYSIS

A ranking is a relationship between a set of items such that, for any two items, the first is either 'ranked higher than', 'ranked lower than' or 'ranked equal to'

the second. In mathematics, this is known as a weak order or total pre order of objects. It is not necessarily a total order of objects because two different objects can have the same ranking. The rankings themselves are totally order. By reducing detailed measures to a sequence of ordinal numbers, rankings make it possible to evaluate complex information according to certain criteria. Analysis of data obtained by ranking commonly requires non-parametric statistics.

**FORMULA**

$$R = 1 - (6\sum D^2 / N(N^2 - 1))$$

R= Rank coefficient correlation

D= Different of rank between paired items in two series

TABLE SHOWING WHICH ATTRIBUTES MOST INFLUENCES THE RESPONDENTS DECISION TO EAT IBACO ICE CREAM

S.NO	CUSTOMER ATTRIBUTES	I	II	III	IV	V	TOTAL	RANK
1	Ice cream quality	50(5)	20(4)	8(3)	13(2)	39(1)	419	I
2	Ice cream Menu	21(5)	44(4)	8(3)	28(2)	29(1)	380	III
3	Price	32(5)	23(4)	38(3)	4(2)	33(1)	407	II
4	Location	6(5)	24(4)	31(3)	51(2)	18(1)	339	IV
5	Cleanliness	9(5)	8(4)	31(3)	40(2)	42(1)	292	V

INTERPRETATION

In the above table, out of 130 respondents, Ice cream quality ranks I, Price ranks II, Ice cream Menu ranks III, Location ranks IV, Cleanliness ranks V.

FINDINGS, SUGGESTIONS AND CONCLUSION**FINDINGS****SIMPLE PERCENTAGE ANALYSIS**

- Majority 53.08% respondents age group between 21-30 years
- Majority 57.69% respondents are female.
- Majority 71.54% respondents are Under Graduates
- Majority 83.85% respondents are Students.
- Majority 84.62% respondents have annual income between 0 to Rs.1,00,000.
- Majority 60.00% respondents like ice creams very much
- Majority 50.77% respondents are regular customers of Ibaco.
- Majority 40.00% respondents rarely visit Ibaco
- Majority 62.31% respondents have tried customized ice cream at Ibaco.
- Majority 37.69% respondents are Highly satisfied with the customized ice cream at Ibaco.
- Majority 40.77% respondents came to know about Ibaco ice cream bar through Television.

- Majority 62.31% respondents say the main reason they choose Ibaco ice cream is Good Quality.
- Majority 53.08% respondents say the price of Ibaco ice cream is high.
- Majority 53.85% respondents say the price of Ibaco ice cream is Satisfactory.
- Majority 91.54% respondents are provided with the flavor of ice cream they want.
- Majority 67.69% respondents are Neutral about Ibaco being the best in the Market.
- Majority 73.85% respondents say the strength of Ibaco ice cream is the Variety of flavours.
- Majority 60.00% respondents are Satisfied with Ibaco ice cream.

LIKERT SCALE

- Likert Scale value is 2.9 which is greater than 2, So the respondents are Neutral
- Likert Scale value is 4.26 which is greater than 4, So the respondents are Highly Satisfied.
- Likert scale value is 4.3 which is greater than 4, So the respondents are Highly Satisfied.
- Likert scale value is 3.6 which is greater than 3, So the respondents are Satisfied
- Likert scale value is 3.8 which is greater than 3, So the respondents are Satisfied.

RANK ANALYSIS

Ice cream quality mostly influences the customers to eat Ibaco ice cream.



SUGGESTIONS

- Price and is the key factor so reduction of the price will help to increase the customers
- In order to create awareness among the customers about Ibaco ice cream more advertisement should be included.
- Availability of the product must be increased in urban areas.
- Company must provide more offers and discounts to their customers.

CONCLUSION

In this research the quality and brand name is very desirable among customers, So they must take necessary action to reduce the cost. The consumers preference towards Ibaco ice cream is a positive opinion. Most of the consumers are highly satisfied with the quality of Ibaco ice cream. Many offers must be given to the consumers and there must be more advertisement and more product promotion.

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A LITERATURE REVIEW OF NOVEL COVID-19 AND RELATED CORONAVIRUSES OUTBREAKS IN THE 1960S UNTIL 21ST CENTURY

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ABSTRACT

Coronavirus (CoVs) is a large group of viruses known to affect birds and mammals including humans. This review aims to present the types of human coronavirus and animal coronavirus studied and displaying the relationships of these coronaviruses to weather, meteorology and climatology. Human coronaviruses (HCoV) in review are namely 229E, NL63, OC43 and HKU1 and other HCoV which are Severe Acute Respiratory Syndrome (SARS-CoV), Middle East Respiratory Syndrome (MERS-CoV) and COVID-19 (SARS-CoV-2). These HCoV originated as animal infections which then develop and ultimately transmitted to humans. CoV can also be found in animals which are Canine Respiratory Coronavirus (CRCoV), Murine Coronavirus Rat Hepatitis Virus (MHV), Transmissible Gastroenteritis Virus (TGEV), Bovine Coronavirus (BCoV), Feline Coronavirus (FCoV), Canine Coronavirus (CCoV) and Turkey Coronavirus (TCV). CoV has been found to last longer in the atmosphere at lower temperatures and lower relative humidity. Thus, some coronavirus outbreaks can mostly be attributed to cold and dry climates for more effective CoV transmission. Identified CoV are mostly active when the temperature is between 9 °C and 24 °C. Findings in this review can serve as knowledge and guidance for individuals, related organizations and governments to be prepared for the CoV threats that is currently occurring and that is likely to re-emerge in the coming years. It is also intended to provide useful baseline information for policymakers and the public.

KEYWORDS: climatology, coronavirus (CoVs), human coronaviruses (HCoV), meteorology, weather

1. INTRODUCTION

Human coronavirus (CoV) history started in 1965, when a virus called B814 was first identified (Tyrrell & Bynoe, 1966). It is believed that since around the mid-1960s and subsequent years, only two species of human coronavirus namely HCoV-229E and HCoV-OC43 have been identified to have infected humans. Later, members of the coronavirus family novel SARS-CoV were introduced to the human population in 2003 (Van Der Hoek et al., 2006). Human CoV is considered a virus that only causes the common cold and was never considered a serious public health threat before 2002 (Ashour et al., 2020). However, the emergence of SARS-CoV-1 in 2002 to 2003 changed that perception because this new CoV was the first to infect humans and causes fatality

(Drosten et al., 2003) (Fig. 1). The Coronaviridae is a family of enveloped, positive-strand RNA viruses and especially, human coronaviruses (HCoV), were known to be responsible for a large portion of common colds and upper respiratory tract infections. HCoV is involved in most of the more serious respiratory diseases particularly in young children and neonates, the elderly and patients with immunosuppression (Geller et al., 2012). Coronavirus is a positive RNA genome measuring approximately 26-32 kilobases, which is the largest genome known for RNA virus (Weiss & Navas-Martin, 2005). There are four common subtypes of coronavirus that have been reported to have infected humans since 1960 - 2002, namely two α -coronaviruses (229E and NL63) and two β -coronaviruses (OC43 and HKU1). All four of these



coronaviruses are routinely producing uncomplicated infections of the upper and/or lower respiratory tract (Geller et al., 2012).

Besides covid-19 virus causing the current pandemic since late 2019, there are several outbreaks caused by other coronaviruses such as the severe acute respiratory syndrome (SARS) Coronavirus and Middle East respiratory syndrome (MERS) Coronavirus. SARS-CoV and MERS-CoV are two highly infectious and pathogen viruses that appeared in humans in the early 21st century (Cui et al., 2019). The first case of SARS was identified on November 16, 2002 starting in southern China (Foshan in Guangdong) (Zhong et al., 2003). SARS has spread rapidly throughout the world with 27 countries being affected and the number of confirmed cases was 8096 and resulted in 774 deaths (World Health Organization, 2004). Ten years later, a highly pathogenic Middle East respiratory syndrome coronavirus (MERS-CoV) has emerged in the Middle Eastern countries (Zaki et al., 2012) including the Korean Peninsula (Habib et al., 2019). MERS-CoV emerged in Saudi Arabia in 2012 with the first case involving one of its citizens in June 2012. The patient suffered from pneumonia and kidney failure resulting in fatal consequences (Farooq et al., 2020). There are approximately 2494 laboratory confirmed cases and 858 deaths reported in 27 countries until November 2019 (World Health Organization, 2019).

In December 2019, several cases of novel Coronavirus (COVID-19) have been identified which began in Wuhan, Hubei Province, China caused by a novel β -coronavirus. It begins with the discovery of several cases of pneumonia of unknown etiology of people with a history of exposure to the Huanan seafood market (Huang et al., 2020). The cases recorded are linked to the Huanan Seafood Wholesale Market where it sells fish and various other species of live animals including poultry, bats, marmots and snakes (Lu et al., 2020). This virus is also known as a coronavirus of severe acute respiratory syndrome (SARS-CoV-2). The virus can spread very quickly from their origin in Wuhan, Hubei Province, China to countries around the world (Wang et al., 2020a). The Corona virus was said to have spread because of massive human movement in China as they returned to their hometowns to celebrate the Chinese New Year in early 2020. This massive human movement triggered the coronavirus outbreak resulting in a national crisis where it started to spread to other Chinese provinces in early and mid-January 2020. Although a complete travel ban was imposed on all residents of Wuhan on January 23, 2020 the virus still spreads very quickly (Liu et al., 2020).

As of October 15, 2020, there are approximately 214 countries and territories worldwide

that have been hit by this virus (Worldometers, 2020). Based on data released by the World Health Organization (WHO), there are 38,002,699 cases of COVID-19 confirmed worldwide until 14 October 2020 while the number of deaths worldwide reached 1,083,234 cases. Data released by the WHO also indicates that the American region recorded the highest number of confirmed cases at 18,090,384 cases, followed by the South-East Asia region of 8,127,106 confirmed cases, Europe has 7,219,501 confirmed cases, Eastern Mediterranean region charted 2,660,450 confirmed cases, African region recorded 1,240,683 confirmed cases and Western Pacific region has 663,834 confirmed cases (World Health Organization, 2020). This virus is known to be very dangerous and is one of the deadliest viruses in the world. On January 30, 2020 a COVID-19 pandemic was declared by the WHO as a Public Health Emergency of International Concern which poses a high risk to countries with vulnerable health systems (Sohrabi et al., 2020).

2. AN OVERVIEW OF THE HUMAN AND ANIMAL CORONAVIRUS TYPES

Coronaviruses belong to the subfamily Coronavirinae within the family of Coronaviridae, under the order Nidovirales (Yang et al., 2020). According to the International Committee of Virus Taxonomy (ICTV), the family Coronaviridae can be classified into two small families namely Letovirinae and Orthocoronavirinae (King et al., 2018). Coronaviruses' size is ranging from 26 to 32 kilobases which is the largest known viral RNA genome (Li et al., 2020). Virion has nucleocapsid consisting of genomic RNA and nucleocapsid protein (N) phosphorylation. It is buried in the phospholipid layer and is protected by a surge glycoprotein (S). Membrane protein (M) which is a type III transmembrane glycoprotein located between the S proteins in the viral envelope together with envelope protein (E) (Li et al., 2020). All human CoVs are of animal origin (Huynh, 2012; Ithete, 2013; Hu et al., 2017; Hu et al., 2015, Cui et al., 2019).

There are two known genetic and serological groups of Coronavirus that can infect mammals except pigs. The first group consists of the Alphacoronavirus (α -CoVs), and Betacoronavirus (β -CoVs) (Monchatre-Leroy et al., 2017), while the second being the Gammacoronavirus (includes viruses of whales and birds) and Deltacoronavirus (includes viruses isolated from pigs and birds) (Harapan et al., 2020). There are two types of α -CoVs which are HCoV-229E and HCoV-NL63 (Yin & Wunderink, 2018), while, β -CoVs can be divided into four lineages namely lineage B (SARS-CoV and 2019-nCoV) which has about 200



virus sequences published. Lineage C includes MERS-CoV which has more than 500 viral sequences (Letko & Munster, 2020). In the last two decades, two large-scale outbreaks of SARS and MERS have occurred due to CoV (Drosten et al., 2003; Zaki et al., 2012). There are β -CoVs in lineage A which are HCoV-OC43 and HCoV-HKU1 (Yin et al., 2018). SARS-CoV is the coronavirus that causes severe acute respiratory syndrome. The 2019-nCoV is the novel coronavirus that causes coronavirus disease 2019 known as COVID-19, which is now the pandemic, and MERS-CoV is the coronavirus that causes Middle East Respiratory Syndrome. The clinical significance and possibility of HCoV outbreaks were unknown until the emergence of SARS and MERS outbreaks although HCoV has been identified for decades (Drosten et al., 2003).

Human coronavirus initially only causes the common cold to its patients. However, severe acute respiratory syndrome (SARS) in 2003 has clearly shown that the emergence of the new human coronavirus has been found to be responsible which in turn makes this coronavirus more recognizable (Weiss et al., 2005). Since the early 1970s, various pathological conditions in domestic animals have been caused by CoV infection (Durham, 1979). It has been identified in a few avian (birds) hosts (Cavanagh, 2007) and can also be on a variety of mammals such as camels, bats, masked palm foxes, mice, dogs and cats (Ismail et al., 2003). Meanwhile, there are a number of animal viruses such as canine respiratory coronavirus (CRCoV) (Weiss et al., 2005) that cause respiratory disease in dogs (Erles et al., 2003), avian infectious bronchitis viruses (IBV) (Weiss et al., 2005) that cause avian infectious bronchitis in chickens (Cavanagh, 2007), and Murine coronavirus rat hepatitis virus (MHV) (Weiss et al., 2005) which can cause a progressive demyelinating encephalitis in mice (Lai & Cavanagh, 1997). Apart from this, some of the CoV have demonstrated gastrointestinal symptoms such as those transmissible by gastroenteritis virus (TGEV) (Weiss et al., 2005; Pensaert, 1970), bovine coronavirus (BCoV) (Weiss et al., 2005; Bridger et al., 1978), feline coronavirus (FCoV) (Pedersen et al., 1984), canine coronavirus (CCoV) (Binn et al., 1974) and turkey coronavirus (TCV) (Ismail et al., 2003). Coronaviruses are distributed through bat and can also be spread by humans and other animals including birds, cats, dogs, pigs, rats, horses, and whales (Murphy et al., 2012). This shows that coronaviruses not only can be found on humans but the animals as well particularly the mammals and avian (Fig. 2).

The human coronavirus namely strain 229E was discovered in 1966. It was first discovered when researchers identified five new agents isolated from the

human respiratory tract with the common cold (Hamre & Procknow, 1966). The HCoV-229E N protein has a molecular weight of 50 kDa and very basic (pH, 10.0) exhibiting a strong hydrophilic nature (Toshio et al., 1989). Additionally, this HCoV N protein has around 26%-30% sequence homology with CoV N protein from other strains or viruses, such as HCoV-OC43 and SARS (Chang et al., 2006). The clinical symptoms of HCoV-229E have been identified to include general malaise, headache, nasal discharge, sneezing, sore throat (Tyrrell et al., 1993; Monto, 1974) and, fever and cough (Papa et al., 2007).

HCoV-NL63 has the potential to infect children, the elderly or the infirm and these vulnerable groups will always need hospital treatment due to severe respiratory symptoms (Van Der Hoek et al., 2006). HCoV-NL63 was first isolated in a seven-month-old child who was diagnosed with nasopharyngeal aspiration in 2004 in Amsterdam. The child shows some symptoms that indicate a respiratory tract infection, and an X-ray of his chest shows the characteristic features of bronchiolitis (Abdul-Rasool & Fielding, 2010). HCoV-NL63 occurring in tropical and subtropical regions is highly unlikely to be affected by seasonal differences in its distribution and is not limited only to during winter (Van Der Hoek et al., 2006). This is because, HCoV-NL63 is reported to occur during the spring-summer season in Hong Kong (Chiu et al., 2005) and during the winter in several other countries. HCoV-NL63 was found to be more dominant to spread during winter based on studies in Australia (Arden et al., 2005), Canada (Bastien et al., 2005), Japan (Ebihara et al., 2005), Belgium (Moës et al., 2005), France (Vabret et al., 2005), the Netherlands (Pyrce et al., 2004) and Germany (Van Der Hoek et al., 2005). Children under the age of 1 year and adults with immunocompromised are more likely to suffer from acute respiratory disease caused by HCoV-NL63 (Pyrce et al., 2004).

HCoV-OC43 was first identified in 1967 (McIntosh et al., 1967a; McIntosh et al., 1967b), and it can cause severe respiratory tract disease in children (Jean et al., 2013). HCoV-OC43 RNA has been repeatedly detected in the human brain (Murray et al., 1992). Therefore, HCoV-OC43 has ability in causing persistent infection in human neural cells (Arbour et al., 1999), infect neurons and cause encephalitis (Talbot et al., 2011). Furthermore, HCoV-OC43 could infect human astrocytes and microglia in primary cultures (Bonavia, et al., 1997). HCoV-OC43 RNA was found to be in the cerebrospinal fluid of a child with acute disseminated encephalomyelitis (Yeh et al., 2004). Based on a study conducted by Vabret et al. in 2003, it was found that HCoV-OC43 was detected in patients of all age groups with several clinical symptoms such as



fever, digestive problems, rhinitis, pharyngitis, laryngitis, otitis, bronchitis, bronchiolitis, and pneumonia. In addition, the same study also showed that outbreak of HCoV-OC43 respiratory infection was responsible for the symptoms of the lower respiratory tract observed in nearly one-third of patients identified by active surveillance for coronavirus infections (Vabret et al., 2003).

HCoV-HKU1 was identified in Hong Kong in 2005 (Esper et al., 2006; Woo et al., 2005a) when 71-year-old patient had been hospitalized with pneumonia and bronchiolitis (Woo et al., 2005a). Patients with HCoV-HKU1 infection have been identified as having respiratory symptoms with dyspnea, cough, and rhinorrhea being the most common (Kanwar et al., 2017). Those who are most at risk of infection by HCoV-HKU1 is the children under the age of 2 years which contributes significantly to the microbial burden among patients with respiratory tract disease during the colder months (Sloots et al., 2006). Mostly, HCoV-HKU1 patients will typically develop fever, runny nose, and cough for upper respiratory tract infections, whereas fever, productive cough, and dyspnea are common symptoms for lower respiratory tract infections (Woo et al., 2009). HCoV-HKU1 which is mostly self-limiting infection, with only two deaths were reported in patients with pneumonia caused by this virus (Woo et al., 2005b). CoV-HKU1 infection mainly occurs in autumn and winter and shows that febrile and breakthrough seizures are more common (Lau et al., 2006).

SARS-CoV-1 appeared in 2002–2003 which was also the first deadly CoV to infect humans (Drosten et al., 2003). There is a similarity of 86% for the entire SARS-CoV-2 genome occurring in 2019 with SARS-CoV (Chan et al., 2020). Among the similarities are which they are both isolated in bats, originating from a live animal market close to a large and densely human populated area, and has the same main transmission pathway which is through respiratory droplets viral shedding via feces (Wilder-Smith et al., 2020). The median incubation period of SARS-CoV-1 is between 4 and 5 days, and a mean of 4 to 6 days (World Health Organization, 2003). Fever, cough, dyspnea (shortness of breath) and occasionally watery diarrhea are the common symptoms of SARS (De Wit et al., 2016). SARS-CoV belongs to the genus Coronavirus in the family Coronaviridae. SARS-CoV also has a large and positive RNA genome of 27.9 kb (De Wit et al., 2016). Clinical manifestations of SARS-CoV-1 are high fever of $> 38^{\circ}\text{C}$, tuberculosis, and rapid progression to respiratory failure (Lee et al., 2003; Booth et al., 2003).

Just as SARS-CoV, the Middle East respiratory syndrome coronavirus (MERS-CoV) also

belongs to the genus Coronavirus family Coronaviridae. This MERS-CoV has a slightly larger and positive RNA genome of 30.1 kb (De Wit et al., 2016) compared to SARS-CoV. MERS-CoV is a novel human pathogen associated with severe respiratory symptoms and renal failure (Bermingham et al., 2012; Zaki et al., 2012). MERS-CoV infection in humans is spread through close contact with infected camels (Memish et al., 2014; Alagaili et al., 2014; Azhar et al., 2014a; Azhar et al., 2014b; Raj et al., 2014), and MERS is caused by human-to-human infection (Assiri et al., 2013). Fig. 3 shows graphic representation of SARS-CoV and MERS-CoV structure and replication. The results of phylogenetic analysis indicate that MERS-CoV belongs to the bat-associated clade 2c β -coronavirus (Zaki et al., 2012; Van Boheemen et al., 2012). Dromedary camel is the intermediate host for MERS-CoV with the mortality rate of 37% (Perlman, 2020). Since the detection of MERS-CoV in 2012, it has not been found to have mutated substantially to enhance human infectivity (Forni et al., 2017). MERS-CoV belongs to Merbecovirus (Zhu et al., 2020). According to Cui et al. (2019), MERS-CoV may have been present in camels for a long time, perhaps at least 30 years ago. Their findings were confirmed by studies conducted by Müller et al. (2014) where camel serum samples collected in 1983 detected MERS-CoV infection.

The β -coronavirus novel identified to occur at the end of 2019 (2019-nCoV or the COVID-19) indicated an outbreak reminiscent of severe acute respiratory syndrome SARS-2003 caused by another β -coronavirus about 17 years ago (Yi-Chia et al., 2020). COVID-19 has some association with SARS-CoV but it is more aggressive than SARS, MERS, or seasonal influenza (Wang et al., 2020a). Studies by Zhou et al. (2020), Ji et al. (202), and Zhang et al. (2020), stated that animals such as bats, snakes and pangolins can be the host for SARS-CoV-2 (Covid-19). Children infected with SARS-CoV-2 mostly showed mild clinical manifestations and recover within 1 to 2 weeks after the disease begins (Shen et al., 2020), while 98% of COVID-19 adult patients, developed fever (Huang et al., 2020). SARS-CoV-2 (Covid-19) is characterized by rapid human-to-human transmission (Yu et al., 2020; Huang et al., 2020; Paules et al., 2020; Lu et al., 2020; Hui et al., 2020). It was also found that patients who had undergone surgery in the month before being infected with SARS-CoV-2 may be exposed to a higher risk of suffering from clinical severe events than those who did not undergo surgery (Liang et al., 2020). Most deaths caused by Covid-19 are due to multiple organ dysfunction syndrome rather than respiratory failure (Wang et al., 2020a). Normally, SARS-CoV has an



incubation period of between 2 to 10 days while its median incubation period is between 4 to 7 days (Yang et al., 2020). However, the incubation period for SARS-CoV-2 (Covid-19) appears to be longer, mostly within 14 days, but the median incubation period is shorter at 3 to 4 days (Yang et al., 2020) (Fig. 4).

3. THE GEOGRAPHY OF COVID-19 AND OTHER CORONAVIRUSES OUTBREAK: Meteorology and Climatology

Meteorological factors play an important role in the survival or sustainability of viruses and the transmission process of viruses (Tosepu et al., 2020; Braga et al., 2001; Liu et al., 2014; Zanolotti et al., 2002; Fraser et al., 2004; De Almeida Brito et al., 2019; Sagripanti & Lytle, 2007). Dalziel et al., (2018) & Wang et al., (2020b), believed that temperature, humidity, and population density can influence viruses' transmissions. Several studies were conducted to prove if there was any significant relationship between temperature and transmission of the virus to severe acute respiratory syndrome (SARS) occurred. According to Yuan et al. (2006), Tan et al. (2005), and Chan et al. (2011), transmission of SARS may occur with the presence of several key factors such as temperature, humidity, and wind speed. A study by Bull in 1980 stated that weather change is highly significantly correlated with changes in mortality due to pneumonia. Similarly, COVID-19 transmission is also significantly related to the influence of temperature and air humidity conditions (Chen et al., 2020). Wang et al., (2020a), also proved that the spreading of COVID-19 was lower in warm and humid regions of China. Meanwhile, MERS is more likely to occur when the climate is rather cold and dry (Gardner et al., 2019).

In mid-March 2020, some researchers from China have stated that there is a link between meteorological factors and the COVID-19 outbreak that is plaguing (Oliveiros et al., 2020; Wang et al., 2020b). It is also supported in studies conducted by Fareed et al., (2020), Iqbal et al. (2020) and Tosepu et al. (2020), which stated that COVID-19 has correlations with temperature, air quality, and other weather conditions. Air quality index (AQI) such as CO (carbon monoxide) and SO₂ (sulfur dioxide) in the air and COVID-19 outbreaks were found to have a positive correlation with the total number of infections. If the air quality is poor, then there will be more deaths. The study involved three countries namely Italy, the US, and China (Pansini & Fornacca, 2020). There is a statistically significant relationship between absolute humidity and average temperature on the spread of

COVID-19 between China territories (Luo et al., 2020). Additionally, the infections of the respiratory pathogens, including the coronavirus is transmitted when rainfall is lower and therefore the relative humidity decreases (Bi et al., 2007). This is because, coronavirus is probably most active when the temperature is between 9 °C and 24 °C. This is further supported by Zhou et al. (2004) that there is possibility for SARS to decrease in average daily temperature during summer where temperature is higher than 24 °C.

Changes in weather conditions are said to affect the viability and persistence of the virus in the environment and the transmission of MERS itself (Dowell & Ho, 2004; Lowen et al., 2007). Coronavirus SARS tends to be active in low temperatures and low humidity environments in subtropical regions such as Hong Kong. While, in the tropics that have a high temperature and high relative humidity environment such as in Malaysia, Indonesia, or Thailand causing coronavirus (SARS) to be less active (Chan et al., 2011). SARS disappeared in the warm weather at the end of July (Wallis & Nerlich, 2005). Since SARS and COVID-19 belonged to the same family and there is likelihood of a similar behavior may occur to COVID-19 as well (Wilder-Smith et al., 2020). Bu et al., (2020) stated that constant warm and dry weather is conducive for 2019-nCoV survival. Yuan et al., (2006), showed that biological interactions between SARS viruses and humans also can be caused by variations in temperature and air quality. Therefore, temperature is an important factor in reducing human coronavirus infectivity (Lamarre & Talbot, 1989). As emphasized by Casanova et al., (2010), the SARS corona virus can survive longer on the surface with relative low humidity and at room temperatures i.e. with air conditioning. Moreover, Chan et al., (2011) found that this SARS corona virus is also able to survive longer on smooth surfaces at higher relative humidity.

Hot and sunny weather will increase the temperature and increase air circulation in the environment. This condition can lead to a reduction in air pollution. Consequently, COVID-19 transmission will also decrease (Kim et al., 1996; Talbot et al., 2005; Medina Ramón et al., 2006; Ko et al., 2007; Wei et al., 2020). This air pollution is associated with excessive respiratory and cardiovascular morbidity (Wong et al., 1999; Atkinson et al., 2001; Wong et al., 2001; Dominici et al., 2006; Medina Ramón et al., 2006; Wellenius et al., 2006; Fusco et al., 2001) and mortality (Wong et al., 2002; Fischer et al., 2003; Ostro et al., 2006; Kan & Chen, 2003; Pope III et al., 2004). However, it was also found that sunny days and summer caused the population to produce higher vitamin D production. The production of vitamin D can strengthen and improve the function of the immune



system to overcome Coronavirus infection and other diseases (Oh et al., 2010). Coronavirus can also be associated with the virus that occur seasonally. For instance, bovine coronavirus has an association with winter dysentery of calves (Tråvén et al., 2001; Cho, 2000). Canine coronavirus (CCoV) survival is longer in infected dog feces during the winter months (Carmichael & Binn, 1981) which may be due to the influence of lower ambient temperatures (Tennant et al., 1994).

4. CONCLUSION

There is a correlation between coronaviruses outbreak with weather, climatology, and meteorology. Thus, the inactivation of CoV can be influenced by factors such as temperature and humidity that occur due to seasonal differences and climate for an area. Based on all the findings, it is found that rainfall is related to CoV transmissions, where infections of the respiratory pathogens are transmitted when rainfall is lower. Therefore, climatology and meteorology are important factors in determining the incidence rate of coronaviruses outbreak worldwide. With this knowledge, the government of every country and the medical teams can probably utilize this knowledge base as input in its strategy in suppressing the coronavirus pandemic which may likely to re-emerge in the coming years. It is also intended to provide useful baseline information for policymakers and the public. Knowledge related to the relationship between weather and coronavirus outbreak is also very important considering it can be used to help classify geographic areas at risk in various countries. This is because, every geographical area of countries around the world is different especially in terms of temperature, weather, climate, amount of rain and number of sunny days. Consequently, the number and speed of spread of coronavirus cases in each country is different.

Declaration of Interest Statement

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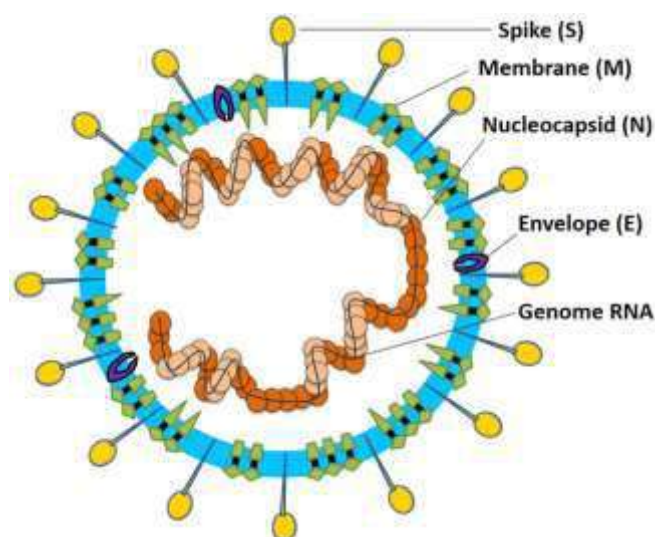


Fig. 1. Structure of CoV virion (Li et al., 2020)

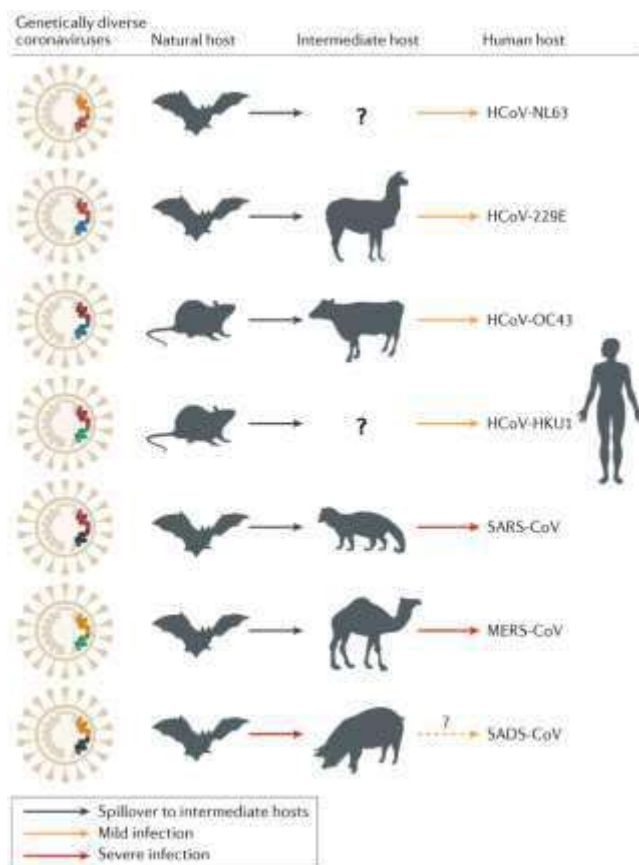


Fig. 2. Animal origins of human coronaviruses (Cui et al., 2019)

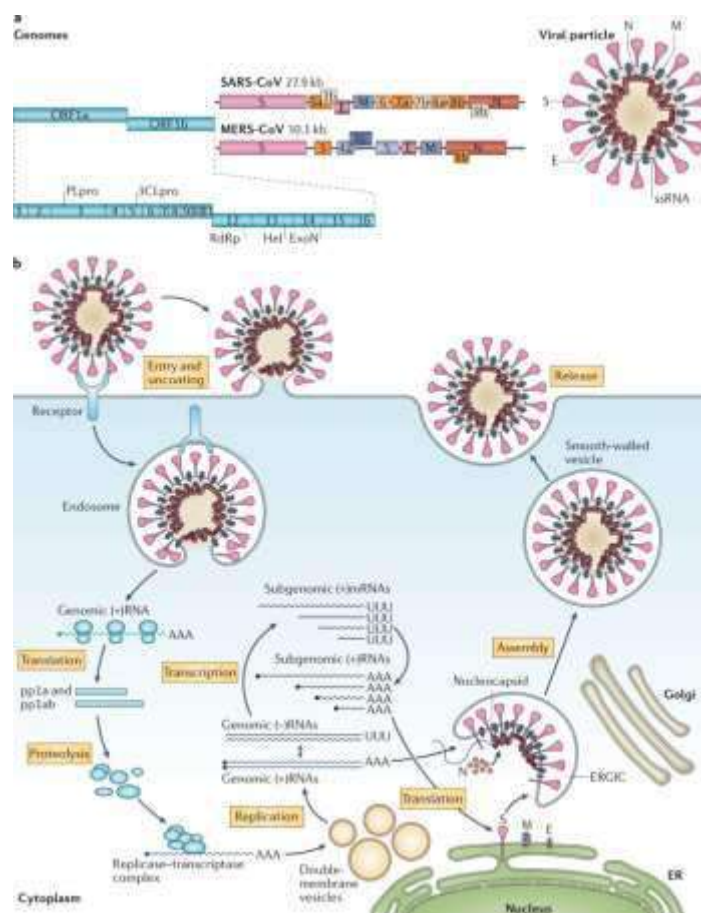


Fig. 3. SARS-CoV and MERS-CoV structure and replication (De Wit et al., 2016)

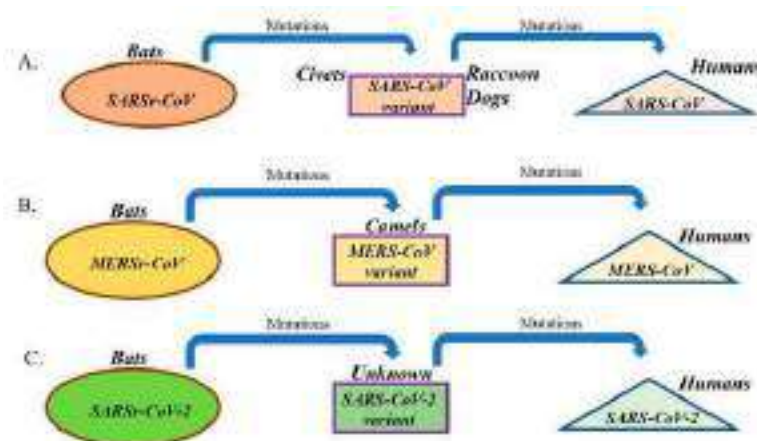


Fig. 4. Similarities and differences of SARS-CoV-1 (SARS-CoV), MERS-CoV, and SARS-CoV-2 (Covid-19) (Ashour et al., 2020)



THE IMPORTANCE OF IMPROVING LEXICAL COMPETENCE OF MEDICAL STUDENTS IN TEACHING ENGLISH AS A FOREIGN LANGUAGE

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ABSTRACT

The article describes the importance of the lexicon component in teaching medical terms for English for specific purposes (ESP) students who study medicine. It deals with some problems in the process of teaching English as a foreign language (EFL) for medical students. This article discusses the methodology of teaching EFL effectively in the Karakalpak classroom. The present paper traces the evolvement of the significance of vocabulary in foreign language learning, and offers a look at several approaches, related to foreign language vocabulary knowledge development, that can be included as part of our classroom practices for the benefit of our learners. As a result of discussion and analysis we concluded that it is pivotal to make use of different methods in the process of teaching EFL for ESP students.

KEY WORDS: English as a foreign language (EFL), English for specific purposes (ESP), medical terminology, teaching, learning, medicine.

INTRODUCTION

In Karakalpakstan students before entering higher educational institutions acquire foreign languages at schools and secondary special educations, and they carry on studying English as a foreign language as well as major to gain language competence to be able to proceed with their professional career in the future. There is no doubt that foreign language teaching and learning has evolved over many years, distinguishing varied trends in the course of its history.

Furthermore, vocabulary has been the dominant focus in the last decades despite it being an undervalued and often overlooked component in the earlier stages. We have become aware of a general consensus among teachers that lexical development plays an essential role in mastering a foreign language. Apart from classroom practices and educational policies governing a foreign language, the crucial role that vocabulary plays in language competence has been more acknowledged in language acquisition research. In fact, language learners themselves consider vocabulary knowledge to be of primary importance and believe that their

difficulties in both receptive and productive language use stem from inadequate vocabulary knowledge, evaluate and apply currently available strategies to encourage vocabulary development.

To understand what lexical competence is, it is essential to try to understand what it means to know a word. Richards (2002) was one of the first applied linguists to propose the concept of “knowing a word” which, in his opinion, included knowing the degree of probability of encountering a word in speech or print, the limitations on the use of the word according to variations of function and situation, the syntactic behavior associated with the word, the underlying form of the word and the derivations that can be made from it, the network of associations between the word and other words in the language, the semantic value of the word, and the different meanings associated with the word. Largely retaining this lexical knowledge framework of Richards, Nation (1990) added pronunciation as an important component to make the framework more inclusive. In addition, Nation (1990) made explicit the distinction between the receptive and productive knowledge of vocabulary, pointing out that production involved a



higher level of knowledge of vocabulary than reception did. Later, Nation (2001) revised his early framework to point out that the knowledge of a word or, in other words, lexical competence, includes three kinds of knowledge:

1. Knowledge of form (spoken form, written form and word parts);
2. Knowledge of meaning (form and meaning, concept and referents, and associations);
3. Knowledge of use (grammatical functions, collocations and constraints on use).

As Dik (1997, p.5, 6) claims that the psychological correlate of a natural language is the notion of communicative competence as introduced by Hymes (1972). He points out that communicative competence comprises “not only the ability to construe and interpret linguistic expressions, but also the ability to use these expressions in appropriate and effective ways according to the conventions of verbal interaction prevailing in a linguistic community”. It may seem natural to suppose that lexical competence, which could accordingly be defined as the ability to use words in appropriate and effective ways in verbal interaction, is part of communicative competence as defined above. However, in current linguistic theory there has been an unfortunate tendency to concentrate on the meticulous analysis of lexical meaning in order to account for the structural properties of lexical items, while ignoring significant aspects of the use and behaviour of lexemes in linguistic utterances.

OBJECTIVES

Currently, it is widely accepted that the English language has become the language of international communication. Careful examination of the attitudes and perceptions of learners and instructors is seen to be important in determining the problems of ESP courses. Acquisition of a foreign language is often viewed as a process that differs from native-language acquisition, and it is frequently assumed that factors influencing

one's ability to acquire a second language do not play a role in native language development).

Although the medical institution curriculum is taught in the Karakalpak, Uzbek and Russian languages, all first year students, regardless of their language proficiency level, receive an intensive course in English along with their other premedical requirements. When they start the courses they might face with increased academic demands at the beginning and quickly realize that they need to develop appropriate learning skills. It has been noticed that medical students in EFL context are most likely facing problems in dealing with their medical subjects and that can be attributed partially to the English Language barrier. Clearly the English language used in such a context includes special

terms and linguistic structures the students have never encountered before.

METHODOLOGY

According to Rieder (2003), incidental vocabulary learning occurs through the process of inferring word meanings when the learner encounters unknown or unfamiliar words when engaging in tasks such as reading. Extensive reading (ER) essentially independent reading, broadly and in quantity over a continual period of time – is one of the primary means of learning vocabulary. The method has proven to be successful in not only improving vocabulary and grammatical knowledge, but has also managed to develop positive attitudes towards foreign language reading among learners of all levels. According to Day and Bamford (1998), among the leading proponents of ER, outlined the following ten criteria found in successful ER programmes:

- a) Reading as much as possible;
- b) A variety of materials on different topics is available;
- c) Reading materials are well within the linguistic competence of the students;
- d) Selecting materials to read;
- e) Reading for pleasure, information and general understanding;
- f) Reading is individual and silent;
- g) The reading rate or speed is usually faster;
- h) Reading is its own reward (post-reading activities are discouraged);
- i) The teacher is a role model of a reader, an active member of the classroom reading community;
- j) Students are oriented to the programme's goals, given guidance, and their progress tracked.

Teachers might elect to complement their reading programme with post-reading activities (vocabulary worksheets) if they prefer applying an approach that covers both incidental and intentional vocabulary learning. Language learners in general actually stand to reap a lot of benefits from intentional vocabulary learning which, according to Ellis (2005, 1999), involves the purposeful learning of lexical information through activities such as direct vocabulary study. Isolating words from their contexts and studying them ensures not only that the correct meaning is learnt, but also heightens the potential for the words to be reinforced and as a result, to be better retained. Rosszell (2007, p. 59) pointed out that decontextualised word study in fact “acts as a buttress against the potentially inefficient or faulty learning outcomes that can result from an over-reliance on a strategy of inferring word meanings from context”.

Accordingly, there are two approaches to intentional vocabulary learning: *the teacher/classroom-centred approach* and *the*



independent approach. However, it is important to pay attention that both approaches can be effective and the realisation that they can only be effective if we go beyond mere memorisation. In order to promote better knowledge retention, it is vitally important to elaborate cognitive processing takes place during learning (Tan, Pandian, Jaganathan, 2015). Currently, the question is no longer "Should we focus on vocabulary?" but rather "How do we get students to learn vocabulary effectively?". The central importance of vocabulary knowledge in language acquisition first, second or foreign is obvious, and having control over both the receptive and productive measures is indispensable. It is noteworthy that although many vocabulary teaching and learning strategies have been made available to us, it is pertinent for us to constantly gauge their suitability, adapt them to the immediate needs of our learners, evaluate their effectiveness and most importantly, improve upon them.

RESULTS

When we look at some literature, the teaching of medical terminology, with structural analysis of the term forming elements such prefixes and suffixes (Boztas, 1988; Erten 2001;

Laar, 1998), and teaching technical terminology as well as less specialized technical vocabulary in the context of case histories and problem-based tasks (Kimball, 1998;

Wood and Head, 2004) have been discussed. As well as medical terminology, some researcher have tried to analyze the linguistic structures mainly used in doctor-patient communication and conferences.

However, translation could still be useful to understand very complex sentences, so we suggest situational translation, instead of translating all the words and sentences in the passage. For the situations in which they feel in great difficulty, for example, understanding very long sentences with complex grammar structures, translation might be necessary for them. The grammar translation method has been widely used in EFL teaching worldwide. However, it should be borne in mind that translation of medical texts has its own problems and may not be much more effective as it can result in dependence on the practice of translation itself, which is very time consuming for the students.

Thus, in order to fully meet the wants and desires in terms of translation in teaching, the teachers at the Medical Institution should be familiar with the translation techniques and translations of the medical texts, but should certainly not rely on it fully. The students should be given more problem-oriented tasks which will reflect their cognitive ability and their own academic skills. Academicians who are familiar with the benefits of PBL (Problem Base Learning strategy) agree that it can be adapted to use

in English for medical purposes classes. The aim of PBL is to enable students to understand related content knowledge and to develop the meta-cognitive skills which will make them good learners and problem solvers (Harland, 2003). Harland states that facilitating learning in PBL groups is different from the traditional teachers' role, and teaching becomes more like research, supervision and mentoring. Teachers monitor the students with suggestions for further study or inquiry but do not assign predetermined learning activities. Instead, students can develop appropriate questions, and produce their own solution to a problem. The necessary grammar or vocabulary items are acquired during the implementation of the tasks.

Also, learners acquire good knowledge during their research and can easily integrate it into their existing knowledge. According to the literature, PBL is an effective method in that it not only improves medical students' clinical skills but also their self-learning skills, making them more autonomous learners of health care issues. Using PBL in their English classes can also be beneficial to help the students adapt more easily to the PBL approach when they face it in their medical classes.

DISCUSSION

The language of medicine is a kind of literary language serving professional fields and the subject of a special study of the medical students focused on the acquisition of language as a means of professional communication. By an old tradition the language of medicine represents the combination of Latin and English terms being the means of international communication and the basis of studying medical disciplines. The education of qualified medical professionals presupposes teaching fundamental elements as well as modern medical terminology and vocabulary. The course of education meets not only informative, but also, communicational needs of the medical students, promoting the formation of communicative and socio-cultural competence.

Communicative competence serves for the purpose of improvement of professional competence and broadens the framework of students' professional behavior. The majority of medical and paramedical terms make up modern medical terminology. Each term is an element of subsystems, such as anatomical, histological and embryological, medical, surgical, gynecological, endocrinological, forensic, trauma, mental health, genetic, botanical, biochemical terms interact and correlate with each other in course of medical education and professional practice. Reading and translating Latin and English texts fosters language skills and forms professional speech patterns in future nurses, obstetricians and medical assistants.



At the initial stage of English, medical students learn the language of everyday communication, which does not provide acquisition of the language used in the special areas of communication. Students learn basic communication patterns and main rules of international and home speech etiquette what helps them to improve their own communication skills and follow the established norms of communication. Basic speech skills are important in case of professional communication. In a medical practice it is vital to be able to speak with patients and engage them in communication. Sometimes a little chat with a patient helps more than a pill. In our institution, medical students study various basic topics including: Description of the character and personality, Healthy lifestyle, social life and media, climate and environmental problems and their influence on people, Educational and culture topics, scientific issues.

Also, it is pivotal to teach students not only to know medical terminology but also to comprehend it. The proper use of the language may also facilitate the adaptation of foreign health professionals to a new social or working environment. The study of medical terminology may become one of the mechanisms to overcome problems occurring in the course of professional communication.

CONCLUSION

As we are aware of that the International medical language is Latin. All terminology in use in Anatomy, Biology, Zoology, Microbiology, Pharmacology, Pharmacognosy, Pharmacy, Chemistry and other medical disciplines is in Latin. Because English language has the same Latin roots for its terminology the students tend to think that this is English. The real practice is that the pronunciation of the terminology in English is according to the normal rules for reading. There are often exceptions where in the pronunciation of the terminology Latin principles of reading (and in some cases the Greek one, whether the root originates from Greek) are followed. It should be taken into account that in the Medical Institution students take exams on other subjects, but not oral English.

In this case, it is quite possible that the same technique will provide different results in different classes. Students learn advanced medical vocabulary and read authentic scientific articles. In the process of professionalization of foreign language the integration of medical disciplines deepens students' medical knowledge and prompts scientific research. Merging of professional and language knowledge systems, as well as their associated professional and linguistic skills enables students to enhance their professional abilities in practical training or in the hospital. Thus, the medical students have probably the hardest task because they should obtain knowledge in English Medical Terminology.

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DRUG-SEMANTIC AND LINGUOCULTROLOGICAL FEATURES OF THE "FAMILY" CONCEPT IN THE PARIS OF THE RUSSIAN AND UZBEK LANGUAGES

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ANNOTATION

This article is devoted to the study of the national-cultural specifics of the objectification of the concept of "family" in Russian and Uzbek languages, as well as the creation of a model for its presentation in the Uzbek audience, which will contribute to the formation of linguocultural competence among Uzbek students studying Russian.

KEY WORDS: *The concept of "family", society, Uzbek mentality, factors, ethnos, national culture, cultural linguistics.*

ЛЕКИКО-СЕМАНТИЧЕСКИЕ И ЛИНГВОКУЛТРОЛОГИЧЕСКИЕ ОСОБЕННОСТИ КОНЦЕПТА «СЕМЬЯ» В ПАРЕМИЯХ РУССКОГО И УЗБЕКСКОГО ЯЗЫКА

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Аннотация

Данная статья посвящена изучению национально-культурной специфики объективации концепта «семья» в русском и узбекском языке, а также созданию модели ее представления в узбекской аудитории, которая будет способствовать формированию лингвокультурологической компетенции у узбекских студентов, изучающих русский язык.

Ключевые слова: *концепт «семья», общество, узбекский менталитет, факторы, этнос, национальная культура, лингвокультурология.*

DISCUSSION

One of the most relevant concepts from a linguo-methodological point of view is the concept of "family", accumulating the most important concepts of the material and spiritual culture of the people, which are transmitted in linguistic embodiment from generation to generation. The most important of the social functions of the family, researchers include the

formation of personality, ensuring the primary socialization of a person in society, as well as the translation of the fundamental values of the linguocultural community (C.B. Darmodekhin, O.V. Dorokhina, etc.). From this point of view, the family is a kind of conductor of national culture, with the help of which a person from childhood learns the national system of values, masters the rules of



behavior in society. The ability of the family as a social institution to carry out these functions implies a close connection between the family structure and the national culture, the conjugation of ideas about family life, relations between family members with a wide range of ethical, moral and worldview ideas, which are characterized by significant linguocultural specificity. These factors determine the relevance of the study of the so-called filling of the concept "family" for linguistic and methodological purposes, and also confirm the need to use a comparative approach in its study, since, as the researchers note, the national specifics of the concept can be comprehended only in comparison with the filling of this concept in another culture (C. G. Vorkachev, V.V. Vorobiev).

As you know, cultural linguistics studies the national and cultural specifics of linguistic units in the entirety of their content and shades of meaning. In view of this, the study of the cultural and historical prerequisites for the formation of the concept "family", which largely determined the content and shades of meaning of the linguistic units verbalizing it, is of particular relevance. An analysis of the cultural and historical prerequisites for the formation of the studied concept in the Russian and Uzbek cultures showed the presence of both some similarities and significant differences. First of all, it should be noted that the concept of "family" occupies a key position in both Russian and Uzbek cultures, which is largely due to their belonging to collectivist cultures (G. Hofstade).

The concept of "family" is also of great importance for the carriers of the Uzbek ethnic group. The specific features of the family in Uzbek culture are the longevity and community of socio-economic interests of its members. Until the middle of the 20th century, Uzbeks were characterized by a certain "dissolution" in the family, complete subordination of personal interests to its needs (H.A. Abramova, J. Domenac, etc.). An illustration of how important family relations were in Uzbek culture is the etymology of the Uzbek word "Oila" - "person", which, according to one of the versions, was originally used in the Old Uzbek language only in relation to relatives, members of the family clan and reflected that mutual disposition, which members of the same clan felt for each other and which they did not feel in relation to strangers. Despite the equally significant position of the concept "family" in the Russian and Uzbek conceptual spheres, the analysis of the cultural and historical preconditions for its formation makes it possible to single out a number of significant differences in its specific content. One of these differences is the relationship to consanguinity that is characteristic of traditional Russian and Uzbek cultures.

According to researchers, the traditional Uzbek culture in general is characterized by the cult

of consanguineous relations (Kiyikbaeva F., etc.). For example, bonds between parents and children, siblings were considered much more important than relations between spouses, which is not typical for many European cultures. The cult of consanguinity was also supported by Confucianism, the most widespread philosophical and religious movement in Uzbekistan. The cult of family ties is most fully manifested in the tradition of living in clans, characteristic of Uzbek culture.

The functioning of the clans that have existed throughout the recorded Uzbek history is a characteristic feature of the manifestation of traditional family culture in Uzbeks. The clan was a circle of families, embracing all blood relatives in the male line up to the seventh generation, bearing the same surname and leading an independent household. Almost throughout the entire history of the Uzbeks, its culture was characterized by a strict separation of "us" and "strangers" in society, based on the individual's belonging to a certain clan, the presence / absence of family ties between people. The behavior of Uzbeks in relation to another person was regulated by his belonging to his own or someone else's clan, i.e. public morality was of a family nature (V.V. Malyavin).

Thus, the importance of kinship ties in traditional Uzbek society was far from being limited to individual families. Family ties largely structured the social system, relations between people and their behavior in general, and were one of the foundations of the social structure.

For the Russian mentality, the concept of consanguinity is also defining. However, as the researchers note, the basis for the division of people into "us" and "strangers" in Russian culture for a long time was not only the presence of consanguinity, but also the belonging of people to one social group, for example, a rural community, as well as a common religion (see the works of V.V. Vorobiev, A.C. Karmin, and others). For example, the Russians called brothers not only blood brothers, but also named brothers, spiritual, godparents (baptized by one godfather). The strongest brotherhood was considered to be the brotherhood of the cross, which appeared after people exchanged body crosses (before a battle or a long separation).

These features of the Russian mentality are manifested in the existence in Russian culture of special relations between participants in the rite of baptism, for example, between the godparents and the godson (or goddaughter). This relationship was of the utmost importance and strength. So, in the event of the death of blood parents, it was assumed that the godparents would take care of the godson. They were also supposed to be responsible for the spiritual development of the child and were responsible for his sins (V.M. Pilipov). In view of the importance and strength of these relations in the texts of Orthodox



literature, they are compared with relatives and are designated as "spiritual kinship" (IS Berdnikov, S. Zamakhaev, A.S. Pavlov, and others).[1]

Thus, if traditional Russian culture is characterized by a "cult of blood relationship", in which only blood relationships are considered valuable, then in Uzbek culture, "spiritual relationship" also has a certain significance and value, which is explicated in Russian in a number of lexical units that are lacunar for representatives of Uzbek culture (for example, the godfather (rus) - ("tutingan ota" uzb))[1]

Another significant difference in the content of the concept of "family" in Russian and Uzbek cultures is the attitude towards older family members. Confucianism with its inherent cult of the patriarchal family determines a lot in the behavior of people and the moral values of the Uzbek society. One of the key principles of building relationships between blood relatives is the principle of opposition between "senior" and "junior" family members, actualized by Confucianism. In this regard, the researchers note that the cultural and ethnic dominant "cult of the elders" (O.A. Kornilov's term) has a high value in Uzbek culture, which determines a strict hierarchy of members of the Chinese family by seniority, in which younger relatives must obey the elders.[2] An example of the linguistic objectification of the cultural-ethnic dominant "cult of the elders" is the semantic content of the lexeme *oil*. Initially, this lexeme denoted the concepts of "old", "old age", "old". However, subsequently, the positive connotations associated with respect and reverence for old age turned into an independent meaning, and this lexeme acquired a second meaning: "respected", "respectable", "senior".

The cult of the elders led to a special structure of the vocabulary group denoting the terms of kinship. In the Uzbek language, at the linguistic level, there is a differentiation of the concept of "relatives", the division of relatives into older and younger in relation to the speaker. Thus, in the Uzbek language there is a lacunar lexeme for the Russian language "*oil*", which denotes the concept of "relatives who are older than me". When addressing a relative, Uzbeks must emphasize his place in the family hierarchy, which is determined by age. For example, if the father has several brothers, then when referring to the oldest uncle, a lexeme is used, which can be translated into Russian as "big uncle" - "when referring to the uncle, second in seniority, the address" second uncle "is used (- below followed by "third uncle", etc. The youngest uncle is addressed by "younger" (or "last") uncle (Thus, an Uzbek speaking about an uncle or aunt, cousin or sister, etc., cannot say just "uncle", "cousin", without indicating the degree of their seniority.

For the Russian consciousness, the fact of kinship is more significant than the seniority of people in the family (O.A. Kornilov). This is

manifested in the fact that the lexical system for designating kinship relations and degrees of kinship in the Russian language does not contain lexemes indicating a person's place in the age family hierarchy. For this purpose, descriptive phrases are used, for example, "older sister", "elder brother of my father", etc. It seems that one of the reasons for such lexical differences is that a rigid hierarchy of family members by age is not characteristic of Russian culture (Cf. : the eldest son-in-law is the first son-in-law, the husband of the daughter who was the first to marry). Despite the fact that Russian people have a respectful attitude towards elders, there is no rigid orientation towards unconditional submission of the younger to the elders, as a result of which there is no need to explicate the age hierarchy of family members in speech.[3]

Russian culture is also characterized by the tradition of subordinating children to their parents (especially to the father), which is regulated, among other things, by the Christian religion. Until the beginning of the twentieth century, parents often completely decided the fate of their children: in what area they should work, whom to marry or marry, what way of life to lead, etc. However, for understanding the specifics of the relationship between parents and children in Russian culture, the fact that that unlike Uzbek culture, which underwent significant changes only in the middle of the 20th century, the socio-cultural history of Russia has a discrete character and represents a change in cultural and historical paradigms (Baptism of Russia in 980, reforms of the 17th-17th centuries, revolution of 1917, perestroika 80s and the subsequent period - the beginning of the 90s of the XX century), accompanied by "breaking" of value-semantic systems (AC Skazko). [4] Since the 18th century, Russian culture has been subject to changes that brought it closer to the West. The cultural influence of Europe (the influence of educational ideas, sentimentalism, romanticism), a change in the social status of women, transformations in the sphere of moral and emotional relations led to the "Europeanization of the family," especially in the high society. In families of this type, the personal beginning of family members increased: children and wives had more freedom, the right to make independent decisions.

Thus, for a long time, two types of family relations between close blood relatives coexisted in Russian culture: traditional Russian (mainly in the peasant environment) and European introduced from the outside (families of the nobility), which could not but affect the content of the concept of "family". In this sense, Uzbek culture is characterized by a great "homogeneity" of family relations, since the first serious changes in the structure of relations between parents and children date back only to the middle of the 20th century. As a result, and also in view of the



spread of Confucian teachings in China, such elements of the content of the concept "family" as "respect for elders", "obedience to parents" are of great importance for Uzbek culture.

The above-described culture-conditioned differences in the structure of relations between family members in Russian and Uzbek cultures could not but find reflection in the language - hence the relevance of analyzing this reflection for linguo-methodological purposes.

The linguistic level of linguistic and cultural competence presupposes, in our opinion, an adequate mastery of the basic meaning of the lexical units being studied, knowledge of the specifics of the paradigmatic and syntagmatic connections of lexemes, as well as the ability to perceive and create statements that correspond to the norms and rules of the Russian language and to adequately interpret texts of a different nature that explicate the characteristics of the studied units.

The national-cultural level of linguocultural competence presupposes the presence of encyclopedic knowledge (cultural and historical prerequisites, the actual content of culture-intensive units); knowledge of ethnocultural specifics (axiological ideas), the ability to compare the traditions of different cultures and tolerate these differences.[6]

The results of the ascertaining experiment showed that Uzbek students do not fully perceive the content of the culturally marked lexical means of the Russian language verbalizing the concept of "family" (which leads to errors at the semantics level (inadequate interpretation of quantitative discrepancies between the meanings of the polysemantic lexeme "family" and the corresponding hieroglyph "Oila"), connotative content (inability to interpret the specifics - ^ value component), syntagmatics, paradigmatics, idioms), directly transferring the content features of the Chinese concept "family" into the context of Russian culture. The results of the ascertaining experiment confirmed the necessity of organizing special training on the content of the concept "family" of Uzbek students.[7]

Based on the principles of socio-cultural orientation, communication, visibility, value, as well as the principle of taking into account the specific level of language proficiency of the learner, an experimental and experimental method of teaching the content of the concept of "family" was created, which included exercises aimed at explicating its linguistic and cultural specifics.

The structure of training included exercises aimed at the formation of Uzbek students' linguistic and cultural competence (linguistic and national-cultural levels) based on the content of the concept of "family". For this purpose, a selection was made of culturally-labeled language and text material, which is relevant, first of all, in the context of teaching

Uzbek students, representing different levels of language (level of a word, phrase, sentence, text).

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CRITERIA FOR THE CLINICAL EFFECTIVENESS OF THE DEEP FLUORIDATION METHOD WITH THE “DENTA-FLUO” PREPARATION IN CHILDREN WITH A MIXED BITE

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ABSTRACT

Statistics data of preventive examinations of the child population, carried out in Andijan, in 2015-2018, showed that 86% of children at the age of 6 years, 73% at the age of 12 years have teeth affected by caries. The indicator of the intensity of caries in children aged 6 years in the range of 4.5 -5.6, at the age of 12 years, this figure was 3.7.

It has been proven that fluorides are one of the effective anti-caries agents that slow down the development of caries, reduce the solubility of enamel, changing its structure, and thereby give resistance to the action of acids. For the treatment of caries in the stain stage and the prevention of secondary caries, preparations for deep fluoridation of enamel are widely used.

The aim of our work was to evaluate the clinical efficacy of deep fluoridation with the drug "Denta-Fluo" for the prevention of caries in children.

Based on the foregoing, the dynamics of the intensity of caries of temporary and permanent teeth in children aged 6–7 years was observed in the course of the deep fluoridation method using the “Denta-Fluo” preparation for 12 months.

And in the process we came to the conclusion that, in addition to the effectiveness of "Denta-Fluo" for remotherapy by the method of deep fluoridation, the advantage of the drug is its budget. A significant reduction in the growth of caries and ease of use gives reason to recommend this drug for deep fluoridation as an alternative to imported drugs in this category.

KEY WORDS: *prevalence of caries, intensity of caries, remineralization, deep fluoridation of enamel, fluorides, "Denta-Fluo", highly dispersed calcium hydroxide*

INTRODUCTION

According to T.A.Akilov (1995), a high prevalence and intensity of dental caries is observed in many regions of Uzbekistan, which obliges specialists in this field to look for the most effective and affordable methods for the prevention and treatment of this disease for different segments of the population. [1]

Despite the developed prevention systems, the developing network of dental clinics, the state of the oral cavity in the population remains at a low level (the intensity and prevalence of dental pathology is increasing).

Statistics data of preventive examinations of the child population carried out in Andijan in 2015-2018, showed that 86% of six-year-olds, 73% of children under the age of 12 have carious teeth. Based on this, the incidence of caries in 6-year-old children was high, and in 12-year-old children, the average. The intensity of caries in children aged 6

years is in the range of 4.5 -5.6, at the age of 12 this indicator was 3.7. 8% of 6-year-old children were diagnosed with caries in the first permanent molars.

According to Kiselnikova L.P. (2009), unsatisfactory oral hygiene in children, insufficient local use of fluoride-containing agents in the form of various rinses, applications are factors contributing to the rapid defeat of temporary and permanent teeth, which are insufficiently mineralized at this age. [2]. All of the above provides the prerequisites for finding more effective methods of caries prevention in children of both school and preschool age.

It has long been proven that fluorides are one of the effective anti-caries agents that slow down the development of caries, reduce the solubility of enamel, changing its structure, and thereby give resistance to the action of acids. Fluorides are also able to inhibit the metabolism of microorganisms, which helps to reduce acid production and prevent the processes of enamel demineralization. [2]



Today, the global dental market is quite saturated with various drugs to effectively prevent and reduce the activity of caries, among which much attention is paid to topical agents, which include fluorides in various combinations with other odontotropic components.

For the prevention and treatment of caries in the stain stage, as well as for the prevention of the development of secondary caries, preparations for deep fluoridation of enamel and dentin are widely used. [6].

Deep fluoridation is understood as enamel saturation due to the formation of highly dispersed CaF_2 crystals in the hard tissues of the tooth after applying a special enamel-sealing liquid. [4]

The deep fluoridation method was proposed by the German professor A. Knappwost. "Enamel-sealing liquid" manufactured by "Human-135 chemieGmbH" (Germany), consists of two liquids.

Liquid composition No. 1: anhydrous magnesium fluoride silicate, anhydrous copper fluoride silicate, sodium fluoride (as a stabilizer), distilled water. Liquid composition No. 2: highly dispersed calcium hydroxide. [3.4]

The high concentration of fluoride and copper ions during remotherapy provides protection of teeth from cariogenic factors

By analogy, in 2019, the domestic manufacturer DentaPfarma LLC developed and presented its first drug, Denta-Fluo, intended for deep fluoridation of enamel and dentin. The Denta-Fluo kit includes liquid and suspension. Liquid -1, represented by a solution containing fluorine and copper ions. The suspension is highly dispersed calcium hydroxide in distilled water with the addition of a stabilizer. When a weakly acidic solution of magnesium fluoride silicate (liquid -1) and highly dispersed calcium hydroxide (suspension-2), deeply penetrating into the pores of enamel and dentin (about 10 microns deep), are applied to the enamel of the tooth, spontaneous precipitation of highly dispersed calcium fluoride and fluoride magnesium, which has the highest solubility.

Thus, the foregoing served as the rationale for the purpose of our study to assess the clinical efficacy of deep fluoridation with the drug "Denta-Fluo" for the prevention of caries in children.

The purpose of the work is to evaluate the clinical effectiveness of deep fluoridation with the

drug "Denta-Fluo" for the prevention of caries in children.

Objectives: to determine the initial intensity of caries in the prophylactic group and the comparison group; to identify an increase in caries in permanent and temporary teeth six months and a year after the start of prophylaxis by the method of deep fluoridation; compare the increase in caries in the prophylactic group and in the comparison group; to determine the reduction of the growth of caries in permanent and deciduous teeth.

MATERIALS AND METHODS

Among the students in grades 1-2, 2 groups of children 6-7 years old, 30 people in each, were singled out. The intensity of caries in group 1 was 5.4, in group 2, this figure was 4.9. Preliminary sanitation of carious teeth was carried out in both groups. In the first, deep fluoridation of 120 permanent molars and 64 permanent central incisors, as well as 228 temporary teeth was performed. In the comparison group, local prophylaxis with fluoride preparations was not carried out, but the children were trained in oral hygiene.

METHODOLOGY

The Denta-Fluo deep fluoridation kit includes a liquid and a suspension. Liquid is a colorless solution containing fluorine and copper ions. Suspension - finely dispersed calcium hydroxide in distilled water with the addition of a stabilizer. All surfaces of the teeth were thoroughly cleaned with a non-fluoride polishing paste, dried with a stream of warm air, the fissures of the chewing and vestibular surfaces of the anterior teeth were squarely treated with liquid N 1 (a complex solution with fluoride and copper ions) using cotton balls or brushes and then after 1 min - with liquid N 2 (suspension of calcium hydroxide), after shaking it. After another 1 min, the surface of the teeth was washed with a stream of water. For the effectiveness of the method, the procedure was repeated after 2 weeks and was carried out 2 times a year with an interval of six months.

The effectiveness of preventive procedures was assessed by the indicators of caries reduction and reduction of caries growth, which were calculated using the formulas (1, 2):

$$\text{Reduction of caries} = \frac{\text{CPU control} - \text{CPU prevention}}{\text{CPU control}} \times 100\%,$$

where CPU control is the intensity of caries in the comparison group;

CPU prevention - the intensity of caries in the preventive group.

$$\text{Reduction of caries growth} = \frac{\Delta \text{CPU control} - \Delta \text{CPU prevention}}{\Delta \text{CPU control}} \times 100\%, \text{ where } \Delta \text{CPU control is}$$

the increase in caries in the comparison group;

$\Delta \text{CPU prevention}$ is an increase in caries in the prophylactic group.



RESULTS AND DISCUSSIONS

Table 1 shows that at the initial examination, the indicator of the intensity of caries in permanent

teeth was 0.64 in the prophylactic group and was slightly lower (0.53) in the comparison group.

Table 1
Dynamics of the intensity of caries of permanent teeth in children during the deep fluoridation method using the drug "Denta-Fluo"

Observation period (months)	Prophylactic group		Comparison group	
	CPU	Increase CPU	CPU	Increase CPU
Initial value	0,64	-	0,53	-
6	0,79	0,15	0,84	0,31
12	0,83	0,04	1,21	0,37

When viewed after 6 months. the increase in caries in the first group was 0.15, and in the second - 0.31 (almost 2 times more). After 1 year from the moment of the first examination, this indicator in the prophylactic group increased by only 0.05, and in the comparison group by 0.15 (9 times more). As a result, for 1 year the increase in caries in the main group was 0.19, which is almost 3.5 times more than in the comparison group (68). The reduction in the growth of caries in permanent teeth was 72%. A significant reduction in the growth of caries within a year after the start of deep fluoridation gives grounds

to recommend this method for the prevention of caries in permanent teeth.

During the initial examination of deciduous teeth, the value of Kpn values had a large difference in both groups and the intensity was within 5.5. After 6 months. the increase in caries was 0.15 in the prophylactic group and 0.31 in the comparison group. After 1 year, in the prophylactic group, the increase in CP was 0.04, and in the comparison group, the difference increased and the indicator of the increase in caries was in 6 months. 0.37 (almost 10 times more).

Table 2
Dynamics of the intensity of caries of deciduous teeth in children 6-7 years of age when carrying out the method of deep fluoridation using the drug "Denta-Fluo".

Observation period (months)	Prophylactic group		Comparison group	
	Cp	Increase Cp	Cp	Increase Cp
Initial value	5,84	-	5,38	-
6	6,07	0,23	5,69	0,31
12	6,21	0,13	6,98	1,29

The growth of carious cavities after 6 months was equal to 0.23, i.e. 6 teeth were added to the total index in the first group and 0.31 in the second group, thus, to the total index in the control group, 9 carious teeth were added. After 1 year, the number of carious cavities increased to 9 in the prophylactic group, and in the comparison group - to 39. A year later, the increase in newly detected caries in the prophylactic group was 9, and in the comparison group, there were already 39 carious cavities, which is almost 4 times more. The reduction in the increase in decay teeth caries was 77.5%.

Based on the foregoing, the deep fluoridation treatment with the use of the drug "Denta-Fluo" promotes the prevention of caries of both temporary and permanent teeth during the period of changeable bite. years before a complete bite change.

CONCLUSION

In addition to the effectiveness of Denta-Fluo for deep fluoridation remoterapy, the advantage of the drug is its budget. A significant reduction in the growth of caries and ease of use gives reason to

recommend this drug for deep fluoridation as an alternative to imported drugs in this category.

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THE DEVELOPMENT OF CREATIVE SKILLS OF PUPILS OF PRIMARY EDUCATION IN THE PROCESS OF ORGANIZATION OF CREATIVE ACTIVITY

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ABSTRACT

The article describes the effectiveness of developing creative skills and the effective ways of organizing the creative activity of pupils of primary education.

KEY WORDS: *creative activity, teaching, learning, primary education, learning process, teacher, pupil activity, collaborative learning.*

INTRODUCTION

Today in all educational institutions of our country, all conditions were created for young people to have high spirituality, independent and free thinking skills, to master the achievements of modern science, world-class classrooms, information and communication, modern laboratory equipment. The task of preparing the specialists in the field is to take advantage of the wide range of opportunities created by the use of modern information and communication technologies, advanced pedagogical technologies to develop pupils' ability to receive, process, think independently, work, and develop intellectual and creative abilities. The organization of an effective educational process ensures the need for the development of a highly qualified specialist who meets the highest moral and ethical requirements. The system of continuous education has been created in the country, and the process of primary education is an important stage in the development of the pupil's personality, perception of the environment, acquisition of knowledge, skills and abilities, the formation of scientific imagination. In an elementary school pupil, the learning process occurs as a result of creative activity. In the process of completing the given task, the pupil feels the need for purposeful, planned, normative and criteria-based, self-conscious activity in order to be explored, to show his creative activity. This means that the pupil acquires knowledge about the objects of the environment and about them; the creation of educational effectiveness requires reliance on previous types of activities.

MATERIALS AND METHODS

The problem of developing technology for the formation of creative activity in primary school

pupils is one of the multifaceted pedagogical-psychological social tasks and one of the urgent tasks for the social development and progress of society. *Creativity* - occurs in different situations of activity. Curiosity, inspiration, aspiration, etc., involve the process from the highest appearance of creativity in the human mind to its manifestation. An individual's need for creative activity implies a new, previously unrealized creative aspiration in the activity. Any buds of creative activity in primary school pupils cannot be perfected outside of education, activity. Revealing hidden talents in children in the educational process, creating opportunities for them to show their activities from an early school age, developing their creative abilities is a guarantee of developing high-potential, socially active, sharp-witted, resourceful and competitive personnel in the future. This corresponds to one of the priorities of our state - the idea of raising a comprehensively developed person.

The formation of creative activity of pupils of primary education is an important component of the educational process. The age and psychological characteristics of pupils, who are active and leading subjects of primary education, as well as the peculiarities of fine arts, labor, music and physical education, require a creative approach from the teacher. The task of the school and the teacher is not only to educate the pupils but also to develop their abilities. The importance of academic work in developing skills is enormous. An elementary school teacher can find out what skills their pupils have, their aspirations for reading, and their level of mastery of the learning material, their ability to remember and apply their knowledge in assignments, their problem-solving skills, and their written and



oral skills. Also, the following qualities: intelligence, quick and accurate memory, thinking, ingenuity, developed imagination, initiative at work, independence and its productivity can be some indicators of children's abilities. The teacher should encourage the children in every way in their performance and creativity in every work with them. There is no need to rush to help a pupil when he is in trouble. The difficulties should be gradually increased. An elementary school teacher puts a pupil with high creative ability at risk among learners; rich imagination; development of intuition; philosophical thinking; speed of thinking and organization of action; possessing the speed of thinking; accept and respond to different situations at the same time; high artistic values, the ability to create innovation; it is important to identify specific original ideas based on qualities such as the ability to advance and focus on developing these qualities in the learning process.

Creative activity also consists of the following internal components:

- Ability to complete learning tasks;
- Striving for independent activity;
- Conscious performance of tasks;
- Structured reading;
- Trying to increase their personal capabilities, etc.

An elementary school teacher is required to follow a number of principles in the formation of creative activity of pupils:

1. Individualization of education.
2. Development of education.
3. Creating favorable conditions for activities.
4. Creating opportunities for pupils to demonstrate their abilities in activities.
5. Effective use of opportunities for extracurricular activities.
6. Apply the developmental principle of education.

The primary school teacher teaches several subjects, he/she should also take into account the following in developing the creative activity of his/her pupils:

- To determine which of the subjects pupils are most interested in and their abilities;
- Development of thematic plans and programs for working with children of creative activity, including the level of complexity, creativity, research, teaching materials, problems, assignments on academic subjects;
- Development of individual work plans for the formation of creative activity of pupils.

RESULTS AND DISCUSSIONS

When designing a lesson plan, it is important for the teacher to take into account the following activation situations that will have an effective effect on the development of pupils' creative activity:

- Participate in discussions;

- Ask questions to your peers and the teacher;
- Interpret peers' responses;
- Evaluate peers' responses and written work;
- Help those who are left behind;
- Explain to empty learners what they do not understand;
- Independent choice of hand-made task
- Find solutions to multiple choice cognitive tasks;
- Create situations for self-examination, analysis of one's own knowledge and practical behavior;
- Completion of cognitive tasks using a complex of known actions.

We have tried to develop guidelines for primary school teachers on the development of technology for creating and conducting learning situations for the development of creative activity of pupils and list it as follows:

1. The main educational object of the sought situation (thing, concept, event, process, tradition, item, etc.). Identify the object and the problem that is of interest to the children; helping children find their personal inner connection with the object of study directs them to think about how to prepare for issues that are personally important to them. This provides personal experience and educational outcomes for pupils.

2. Children are given a problem or task whose solution is unknown. Completion of this task will be effective only when there is an educational upsurge in the classroom and pupils show their activity by completing the task.

3. The definition of the assignment may be the result of discussing the problem as a group. The task described by the children is not only interesting, but will be achieved only if it is new to the teacher.

4. Creating the opportunity for the pupil to personally solve a situation (task) that has arisen or created - is the main stage of the heuristic situation. At the same time it is necessary to determine the sign of creativity from any educational outcome.

5. Demonstration of examples of educational work of pupils: poems, stories, assignments, descriptions, symbols, pictures, projects, etc., discussed in groups, the organization of exhibitions, mutual written reviews, lectures.

6. To be able to substantiate with examples of educational creations, pictures, narrations, descriptions, opinions of scientists, information in textbooks, personal knowledge and imagination.

7. Organization of children's activities on comparison, comparison, classification of creative samples. When pupils identify their own views or patterns of creativity, they are helped to understand the reasons for the change in their views. The development of educational situations is ensured.

8. Thinking, analysis of pupils' understanding of the methods used in cognition, the problem that



arises and ways to solve it. Help pupils identify the results they have achieved individually. Identify team-created learning outcomes. It is possible to prepare the ground for independent and creative thinking of pupils through the use of various creative tasks designed to form creative activity of pupils in primary school reading lessons.

The following are examples of forms of organizing such tasks:

1. Encourage pupils to be creative. A teacher who prepares pupils for creative activities should first and foremost arouse pupils' interest in the learning material being presented. In what way can he engage pupils in stating the main topic?
2. Effective use of cited images, comparisons and adherence to their norms.
3. Always express an idea in a complete sentence and with emphasis on important points.
4. Be polite and alert.
5. Use the following phrases: "imagine", "imagine", "fly creatively ..." and so on.
6. Trying to maintain visual contact - trying to look at the audience (30 seconds per participant).
7. It is advisable to always encourage every response and suggestion. In short, it is important to create different conditions for the development of creative activity of pupils in the process of primary education.

CONCLUSION

The development of creative activity of pupils of primary education has a specific psychological and pedagogical characteristics, which include the creation of problematic situations related to the development of pupils' mental activity, purposeful approach to lessons, taking into account pupils' abilities, interests, desires and wishes, ethics, knowledge system and focus their skills on mastering different forms and methods of activity. Creative activity develops on the basis of the formation of such qualities as the creative activity of the individual, cognitive activity, organizational activity through three types of education, which lead to effective results through non-traditional forms and methods of education.

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THE METHODS OF SPEECH DEVELOPMENT OF PRESCHOOL CHILDREN

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ABSTRACT

Speech development of preschool children is a complex psychological process as it is not just about imitating the speech a child hears. This process is associated with the development of communication activities of children in general and the need for communication. The child's focus on new aspects of being: the transition from practical activities to the study of the world and people, their relationships, necessitates new means of communication that serve new goals. In this article, I will discuss the methods of speech development of preschool children.

KEYWORDS: *speech development, preschool children, methods, communication activities, practical activities*

INTRODUCTION

We know that the speech development of preschool children is a complex psychological process as it is not just about imitating the speech a child hears. This process is associated with the development of communication activities of children in general and the need for communication. In this process, expanding a child's vocabulary allows him or her to master a broader and more diverse expression of his or her own experiences. For modern and full development of speech, interaction with the people around should enrich the structure of the child's need for communication.

The reason why children master speech is that the basis of their communication activities is need-motivation, the structure of which has changed. In the verbal stage, the child develops slurred speech. The main significance of the period to this stage is that within it the necessary conditions for the transition to the next stage - the stage of the emergence of active speech. In the second stage of a child's active speech acquisition, three main aspects emerge: emotional relationships; relations during joint activity (cooperation); sound relationship. Every aspect of a child's communication with adults under consideration helps him or her accept the communicative task that is placed before him or her and requires the use of the word as a conditionally accepted means of mutual understanding in society. In addition, each aspect of the communicative factor under consideration, to one degree or another, helps children to solve a communicative task, that is, to use speech. In the third stage of speech development, its matter (vocabulary and grammar) becomes integral to the child's need for communication with adults and its composition, changing the function of

communication. This leads to the child learning new, more complex and comprehensive aspects of speech. The fact that speech plays a crucial role in the spiritual formation of a child further increases the importance of the conditions and factors that contribute to his development at different stages. The question of the driving forces of speech development is also of particular importance because of their rapid and sudden realization.

MATERIALS AND METHODS

According to the scholar A. M. Borodich, identifying the forces that stimulate or slow down children's speech development is the key to organizing pedagogical efforts with a clear goal in mind in this process. Indeed, language and thought do not live without each other. Thinking is the end of an objective being, and language is a means of conveying and reinforcing thought to others. Words and concepts interact in a dialogical way.

It is known that the development of speech in preschool adults is carried out in different types of activities: in the lessons of acquaintance with natural objects; in literacy teaching; in play activities; in the performance of various tasks in the process of socially useful labor. However, the scholars such as A.M.Borodich, F.A.Soxin, E. I. Tixeeva, O.S. As Ushakova, A.P.Usova, A.P.Fedorenko and other researchers have shown that it is expedient in all respects that speech development should be carried out in specially planned and organized classes. However, in order to achieve the best results in the organization of trainings, it is necessary to adhere to the following requirements: planning trainings taking into account their purpose, content and duration; clearly define the independent activities of children



in the lessons of solving analytical-synthetic speech problems, establish relationships between subjects, distinguish similarities; clear definition of the content, time and method of training to address specific issues of an educational nature; to arouse children's interest in speech formation lessons; adherence to consistency between scheduled sessions.

It is well known that the tradition of using symbols in speech is not controlled by anyone. It is necessary to remember and use the emerging tradition. Therefore, in order to have a speech, it is necessary to know the tradition of using language signs (their combinations, to be able to replace each other. In this regard, researchers L.P. Fedorenko and G.A. Fomicheva put forward a methodologically important idea: to teach him, - they write, - to make it easier for him to understand the meaning of language matter (exercise of speech organs), language signs, lexical and grammatical signs (exercise of intellect), to express the appreciation of being by means of lexical and grammatical signs (exercise of respect and emotion); agreeing with a child-centered approach to speech acquisition, we note that the authors of this handbook often use the terms "help," "exercise," and so on, but how to help. , pay less attention to the possibility of exercise. To prepare the child for a successful education in school, o him nor is it necessary to create appropriate conditions for the possession of all the riches of the language.

One of the main tasks of preschool is to form their correct oral speech as a result of children mastering the literary language of their people. This general task consists of the following special tasks: to cultivate the sound culture of speech, to enrich, strengthen and activate the vocabulary, to improve the grammatical correctness of speech, to form oral (dialogic) speech, to develop fluent speech, to cultivate interest in artistic speech, to prepare for literacy. Children's speech development should be based on an appropriate program. This program defines the scope of knowledge about the environment and the volume of vocabulary, speech skills and abilities that should be formed in children at each age, which should include the development of certain personality traits (initiative, politeness, greeting, moderation). The speech development program is built on a scientific basis, with all its content aimed at the comprehensive development of the child's personality. Speech development programs take place in forms of child activity such as learning, play, work, and household. In the context of public education, education is the leading means of shaping a child's speech. Native language teaching is a process of developing children's cognitive abilities with a planned, clear goal, mastering their simplest knowledge of the environment and the relevant vocabulary, and developing speaking skills and abilities. The main form of teaching preschool

children are lessons. The following types of lessons can be distinguished for didactic purposes:

- Lessons on the introduction of new material;
- Training to strengthen knowledge, skills and abilities;
- Lessons on generalization and systematization of knowledge;
- Final training or accounting (control) training.

Classes on teaching children their mother tongue should be conducted in each group, taking into account the age of the children and the level of speech development of each child. As the content of knowledge, their composition, the choice of methods and techniques, the number of sessions per week, the duration of each session will depend on it.

It is recommended to conduct speech development classes for children from 1 to 3 years of age in the form of didactic games, fun games, performances. They should be not only entertaining, but of course educational. Speech development in children aged 3 to 5 years should be emotional in nature. It is necessary to use a wide range of visual aids, game methods and didactic games. Speech development classes for children between the ages of 5 and 7 have a specific function - that is, it involves preparing children for school. In addition to speaking tasks, the teacher also develops the ability to organize learning activities (attention, listening to the teacher's task, understanding and clear execution, the ability to think in front of a group of children, simple assessment of peer responses, etc.).

With the right education, by the age of seven, a child can master oral speech and be able to communicate freely with adult relatives and peers; expresses an opinion in dialogue, knows how to attract the attention of the interlocutor, to respond to him with words, actions and non-verbal methods; can express his / her ideas in the form of complete and incomplete simple sentences, short texts; - become interested in telling familiar stories, telling the content of cartoons, books and fabricating any story; - uses different parts of speech, metaphors, comparisons and synonyms in expressions; - begins to react critically to speech, strives to speak grammatically correct, as a result of which word weaving ceases, the number of agrammatisms decreases; correctly pronounces all sounds in the native language.

RESULTS AND DISCUSSIONS

Many of the speech communication and skills of children are formed outside of the classroom. In preschools, children interact with adults (teachers, nurses, educator assistants, etc.) in a variety of activities. In the process of labor - in household, manual and agricultural labor, children's vocabulary is enriched, identified and activated. During play activities, the teacher forms independent speech activities in them. In children, vocabulary,



knowledge gained in the lessons is strengthened and activated. The participation of the teacher in the games helps to enrich the vocabulary, to foster a culture of verbal communication. In the process of organizing construction-related games, the educator identifies and activates a large group of words (determining the quality, quantity, size and location of objects in space, etc.) that are difficult for children. Textual, moving musical games, staging games help to form the expressiveness of the child's speech, correct speed, breathing, practice good diction. In the course of many games, children become acquainted with artistic texts, memorize them, and begin to use them independently. With the help of didactic games, children's knowledge of the environment is strengthened; vocabulary is strengthened, clarified and activated. Didactic games are used to practice speaking skills and abilities (phrase formation, word modification, story weaving, etc.).

Domestic activities create enormous opportunities for a child to interact with adults. For domestic activity to serve as a means of speech development, the educator must manage it. In the process of properly organized household activities (food, clothing, gymnastics, travel, etc.), that is, if the teacher, especially in small groups, explains in detail the names of household items, their parts, quality, features, purpose of use, take appropriate action if he increases and interprets it, asks children questions, teaches them to use everyday vocabulary, the children's vocabulary will be enriched.

If the educator uses metaphors, comparisons, synonyms, folklore (proverbs, parables, short poems) in his speech, his speech will be calm and expressive. Children's fiction serves as a powerful tool for children's all-round development, which has a tremendous impact on the development and enrichment of children's speech. Children's books in poetic images reveal and explain to the child the life of society and nature, the world of human emotions and relationships. Artistic speech enriches the child's speech, makes it figurative, expressive, and helps the mother to understand the beauty of speech. In addition to the artistic word, fine arts, celebrations, and performances are used as an important tool for speech development of preschool children. Their value is that it creates positive emotions, which in turn affects the level of language acquisition. A sense of joy, excitement, a state of uplift, anticipation of something unusual increases children's receptivity, enhances material memory, affects children's expressiveness of speech. When looking at pictures, works of applied art, children ask a lot of questions, rush to share their impressions with others. Children interact with their teachers throughout the day - in classes, games, household and work activities. The possibilities of developing a speech environment in a spontaneous preschool will depend entirely on the quality of the educator's speech. Having exemplary

speech is the level of professional training of an educator. It is therefore the moral and social duty of a future educator to worry about improving his speech. He must perfect all his speaking skills and pass it on to future children. By imitating others, preschoolers learn not only the secrets of correct pronunciation, word usage, and sentence construction, but also the speech imperfections that adults encounter.

CONCLUSION

To conclude, the meaningful communication of the educator with children and children with each other, a favorable language environment that stimulates children's development, the use of appropriate methods are the key to success in speech development of preschool children. Methodological principles of speech development of preschool children include: the principle of developing speech as a whole structure;

- The principle of taking into account the individual characteristics of speech development; the principle of ensuring active speech practice of children;
- The principle of a behavioral and practical approach to speech development; the principle of providing a positive and emotional environment for communication.
- Speech development of preschool children is a complex psychological process that involves not only imitating the speech the child hears, but also the development of communication activities and the need for communication in the child.

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GENERAL AND PRIVATE IN THE TEACHINGS OF AHMAD YASSAVIY AND MAHDUMI AZAM

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ANNOTATION

The article analyzes the general and particular ideas of Ahmad Yassaviy and Mahdumi Azam as well as the creation and strengthening of the idea of stability of the world, strengthening friendship and unity, love and mercy

KEYWORDS: Ahmad Yassaviy, Mahdumi Azam, general, individualism, brotherhood, space, time, khan, justice, sharia, tarikat

DISCUSSION

The main goal of the restoration of religious values in our country, the deep and objective study of mysticism is the formation of a perfect human personality, the solution of socio-political problems, the rich experience and rational use of mysticism in modernizing society. The science of mysticism, the extensive teachings of its sects, has a long history and its roots go back to ancient times. We need to develop a national idea that will be a source of strength for us in the implementation of the great tasks set before us by President Sh. Mirziyoyev in his next Address to the Oliy Majlis on December 28, 2018.

In particular, we need to understand our national identity, study the ancient and rich history of our country, strengthen research in this area, fully support the activities of scientists in the humanities. Therefore, the restoration of the historical and cultural heritage of our people and its application to the construction of a new society is a vital necessity. The first President Islam Karimov said, "History is becoming a real educator of the nation. The deeds and courage of our great ancestors revive our historical memory, that is, they form a civic consciousness, a source of moral education and example." [1]

The study of the socio-political views of mysticism and the use of its positive aspects as the deep roots of the ideology of national independence will help to build a free and prosperous homeland, a free and prosperous life. The question of the peace and tranquility of the community has been the constant focus of mystics.

3 conditions of the Andoki Sufi brotherhood, a student of Yusuf Hamadoni:

1. Ikhwan - that is, a specific person

2. Venue - that is, a specific place

3. Time - that is, a specific time [2]

discussed.

In some sources, Ahmad Yassavi, knowing full well that dervishism is not an easy profession, connects the development of dervishism with the elements of time, space, and irshad:

"The murid of the Muftadis, the sudur of the Sufis, and the appearance of the muntahids depend on these four principles: Makan, Zaman, Ikhwan, and Rabti sulton." [3]

According to Yassavi, knowing the Shari'ah and living according to it is the primary duty of a Sufi. Just as there is no sect without Shari'a, another condition of sect education is "political murshid":

The sect needs a political murshid,

He needs a murid of faith.

It is necessary to find pir rizosin as a service

Mundog is in love with Haqdin. [4]

But Mahdumi Azam interprets these rules as follows:

1. KHAN - Ensuring the effectiveness of the activities of the sect depends on the rulers and is their main task.

2. IHVON (brotherhood) - members of the sect should be sympathetic, sympathetic, like-minded and united in their actions.

3. PLACE (place, position) - an environment created for the members of the sect to perform all their duties: place of residence, room, mosque, etc.,

4. TIME (time) - time, moment, breath, opportunity, the passing of each breath in dignity and awareness. [5]

If you notice, Mahdumi Azam puts the concept of KHON in the first place in the list of



conditions, thus emphasizing the superiority of political activity in the service of the sect.

He also recalled the hadith of the Prophet (peace and blessings of Allaah be upon him) that "one hour of justice is better than sixty years of supererogatory prayer." This is to emphasize that justice is superior to prayer, and that the believer-Muslim should strive for the triumph of justice.

Thus, the Sufi Khan represents justice as its criterion - the truth and the Shari'a and the sect as the two phases. Justice is an idea with powerful spiritual power that defines the nature of man and the essence of the social system.

The importance of the spiritual heritage of Central Asian mystics in the struggle against religious bigotry and fundamentalism is that they consistently adhered to the requirements and doctrinal principles of Islam and tried to connect them with universal values, faith, morality, mutual understanding and love. In this regard, researcher G.N. We consider the following statements of Navruzova to be well-founded: "Sufism, although essentially based on the Qur'an and hadiths, is a doctrine that embodies some of the universal values;

While mysticism is a religious doctrine, it is also a practical knowledge that emerges from experience. While theology and philosophy regard faith as a mental phenomenon, mysticism views faith as a moral way of life, mutual understanding, compassion and love. [6] This is why the ideas of Central Asian mystics about the peace and tranquility of the community are so important in the fight against religious fundamentalism and extremism. These noble appeals of our great ancestors Ahmad Yassavi and Mahdumi Azam to strengthen peace, stability, friendship and solidarity, to create an atmosphere of mutual love, compassion and mercy are of particular importance in the current process of conflict and enmity in different parts of the world.

According to Muzakkir ul-Ahbab, the ruler Ubaydullohon wrote the following rubai to his elder Mahdumi Azam:

How are you, my friend, Yake-du binam,
By no means do I want to convey that I
recommend for the mother to be inactive
As soon as the Independent Truth [7]
Contents:
I see half the situation, my friend, a couple,
Whatever I see, I see it all with.
In any case, I am so immersed in the Truth that
I only say the Truth, I hear the Truth and I see
the Truth.

In response to this rubai of Ubaydullokhon, Mahdumi Azam wrote a treatise "Sharhi ruboiyoti Ubaydi" [8]. Of particular interest are the three treatises on the poems of Ubaydi [9] from the collection of Sufi treatises.

It is known from the following divan that Ubaydullah Ahmad was also aware of the teachings of Ahmad Yassavi:

The ruler of all mashoikh, Sultan Khojahammad Yassavi.

The leader of the countless murids, Sultan Khojahammad Yassavi.

Hizr Ata's companion, the warning of the wise,
Always divine divine, Sultan Khojahammad Yassavi.

Praise be to Allaah, the Lord of the worlds,
The secret of the divine mahram, Sultan Khojahammad Yassavi.

Both the people of love are faithful, and the
people of love are faithful,

Dedor ganji shaiqi, Sultan Khojahmad Yassavi.

When his son was martyred, he told the news,
Ablaq gave the horse fluently, Sultan Khojahmad Yassavi.

Lozola raussussobiriyin, manzo'ru
kullinnoziriyin,

Sultanu kullil- orifiyn, Sultan Khojahmad Yassavi.

The search for happiness, the ore of the
storehouse of the soul,

The Pearl of Wisdom, Sultan Khojahmad Yassavi.

O friend of mine, knowledge and
enlightenment,

The property of the Sultan is ofiyat, Sultan Khojahammad Yassavi.

My sorrow will not remain in my heart, if you
are like me, my mahram,

I am always with you, Sultan Khojahammad Yassavi.

Sad on the airline, refusing to work in the air,
Months help us, Sultan Khojahammad Yassavi.

The sky of glory, the sky of love,
Poor Ubaydi Yovari, Sultan Khojahammad Yassavi. [10]

The views of Ahmad Yassavi and Mahdumi Azam embody a system of vital ideas that have a positive effect on the human heart and mind, and serve as a doctrine that unites the nation, people and society. The mystical views of the Sufis, imbued with humane and universal ideas, help all peoples, nations, ethnic groups, social strata and religions living in Uzbekistan to live in peace and harmony.

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THE ROLE OF NATIONAL VALUES IN FORMATION OF RESPONSIBILITY OF PRIMARY SCHOOL PUPILS

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ABSTRACT

The article presents the role of national values in building responsibility of younger schoolchildren in the educational process of elementary school by means of the system-activity approach.

KEY WORDS: national values, responsibility, junior schoolchild, educational process, primary school.

INTRODUCTION

The integration of market relations in modern society leads to a change in the value system, the formation of new ideological lines, ways of perceiving reality, both among the adult population and among children. The ideal in the modern worldview is a person who knows how to live beautifully without much labor and resource costs. The formation of responsibility of younger schoolchildren is another step towards the actualization of the internal capabilities of the personality, its vitality and moral stability from an earlier point of reference. In this regard, the attitude to national and universal values in our country has changed radically. Restoration of national values, their preservation and transmission to future generations is a key issue on the agenda. The concept of "values" has taken on its original meaning, and it has become necessary to pay attention to values and use them in education.

MATERIALS AND METHODS

Values are formed and developed in the process of human activity. It has a social character and serves the needs of human life and activity.

Among the forms of expression of values, which are considered to be an important means of education, there are also constants. These include human life, well-being, health, work, education, and behavior. Values help young people to gain a deeper understanding of life, to adhere to the legal norms of society, to adapt their lifestyle to the legal and moral norms. Therefore, it is important for young people to have a deep understanding of values, appreciation, the essence of devaluation, to understand the importance of values. Uzbekistan is a land of such ancient, rare and eternal values. Its history, national and cultural riches have always reminded us that our country was one of the first centers of human history, and we have always been proud of it.

Our ancient values play a practical role in the realization of our great goals, such as the preservation and promotion of the immortal heritage of our ancestors, especially in the hearts of primary school students, to further strengthen the sense of love and devotion to the Fatherland. After all, without the national traditions, customs and ceremonies of any nation, there would be no life, no spirituality. The Uzbek people have their own unique material, spiritual and historical values. The task of today is to study all this, to enrich it, to improve it in line with modern requirements. In this regard, the noble values of the Uzbek people today, such as diligence, honesty, hospitality, good neighborliness, sincere relations between children and parents, respect for the formation of spiritual purity, helps. Educating primary school students based on national values in partnership with family and school is especially important as a primary educational tool.

National values have a direct impact on the spiritual development of primary school pupils only when they become part of their daily routine. The impact of values on children is far greater than the impact on adults, because once adults' worldviews, beliefs, and habits have been established, children are now laying the groundwork for them.

As elementary school pupils are affected by nature, they are strongly influenced by existence and the events that take place in it. Just as events and happenings in existence are diverse, so are the forms and meanings of values. Especially in Uzbek families, the traditional method of instruction and exhortation is important in the formation of human qualities in children. In particular;

- human appreciation of people;
- understanding of the duty of humanity;
- be honest and truthful;
- Deep thinking about goodness is of special importance as an inheritance.



- Feel responsibility of being citizen of the country

In folk pedagogy, the following tools can be used to educate primary school students on the basis of national values:

- Uzbek national games;
- national songs and lapars;
- national dances;
- traditional ceremonies;
- festivals - field festivals, flower festivals, melon festivals;

Competitions and events play an important role in the formation of national values. National values, traditions and it is expedient to bring up on the basis of our traditions. So, it is the sacred duty of educators in educational institutions and every parent in the family to bring up primary school students on the basis of national values, to strengthen opportunities and create the necessary conditions for such educational resources.

RESULTS AND DISCUSSIONS

The main criterion for a person's attitude to the world around him, to people, their views is value relationships. They determine the social interaction of people, the struggle and coordination of their interests, requirements, regulate human behavior, determining the future of an individual's life in society. Determination of the ways of its formation, including the establishment of an active social position, depends on the disclosure of the features of the development process and the specifics of the impact of value relationships on the developing personality, which make up the content part of a person's characteristics. Therefore, in recent years, the conditions and patterns of the development of value relationships in children of primary school age have been studied.

The priority area of the education system today is: the Law of the Republic of Uzbekistan "On Education", the State Educational Standards in Education, the Concept of Spiritual and Moral Education of young people which are the legislative basis for the formation of the structure of the basic educational program of primary general education. The main pedagogical goal for the formation of value relationships in children of primary school age is the upbringing of a moral, responsible, proactive and competent citizen of Uzbekistan. This problem should be solved in the following directions: in the field of personal culture formation; in the field of social culture formation; in the field of family culture formation.

In the field of personal culture formation, this is the formation of the ability for spiritual development; strengthening of morality; formation of the foundations of morality; the formation of the foundations of the moral self-consciousness of the individual (conscience); adoption by students of basic

national values, national and ethnic spiritual traditions; the formation of aesthetic needs, values and feelings; formation of the ability to openly express and defend their morally justified position, to be critical of their own intentions, thoughts and actions; formation of the ability to act independently and act; development of hard work, the ability to overcome difficulties; awareness of the value of human life by the younger schoolchild; the formation of the moral meaning of the teaching.

In the field of social culture formation, this is the formation of the foundations of Russian civic identity; awakening faith in Uzbekistan, a sense of personal responsibility for the Motherland; the formation of patriotism and civil solidarity; developing the skills of organizing and implementing cooperation with teachers, peers, parents, older children in solving common problems; building trust in other people; developing goodwill and emotional responsiveness, understanding and empathy for other people; the formation of humanistic and democratic value orientations; formation of a conscious and respectful attitude towards traditional Russian religions and religious organizations, towards faith and religious convictions; formation of the foundations of a culture of interethnic communication, respect for cultural, religious traditions, the way of life of representatives of the peoples of Uzbekistan. In the field of the formation of family culture, this is the formation of an attitude towards the family as the basis of Uzbek society; formation in a younger student respectful attitude towards parents, a conscious, caring attitude towards elders and younger ones; acquaintance of the student with the cultural, historical and ethnic traditions of the Uzbek family. In general, practice shows that educational work on the formation of value relationships in elementary school should be based on the following set of principles: psychological comfort and principle creativity.

The success of the implementation of the principles is due to the choice of educational forms and methods of working with younger students. An example is the developed and tested by us in the educational process of primary school, the following educational activities: pedagogical debate "The system of educational work on the formation of value relationships in primary school"; class hours: "I am a citizen of Uzbekistan", "Friendship is the main miracle"; collective creative deeds: "Fair of qualities", "If you are kind"; actions: "I - and the world around me", "Plant a tree"; patronage: "Grandmother next to grandfather", "Heirs of the Timurites"; concert programs: "The musical world through the eyes of a child", "In the country of a happy childhood"; parent lectures: "The role of the family in the formation of a healthy lifestyle" and "The family as a factor in the socialization of the individual."



The choice of these types of joint activities was not chosen by chance; for productive work on the formation of value relationships in younger pupils, we carried out a scientific research, consisting of three stages: ascertaining, formative and control. As a subject of diagnostics, we have chosen the value attitudes of a primary school-age child to the family, to studies, to peers. For the effectiveness of the diagnostic level of the formation of value relationships in primary school, we have defined criteria and indicators.

Criteria and indicators for assessing value relationships:

1. Cognitive - the presence of knowledge about the concepts of "value", "value relations", the formation of the personality's worldview;
2. Emotional-motivational - experiencing a sense of responsibility, duty and conscience for fulfilling assignments, awareness of the person's actions;
3. Behavioral - characteristic features of the personality, from the point of view of value relationships.

On the basis of the selected criteria and indicators, the levels of the formation of value attitudes in younger schoolchildren are highlighted:

High level: possesses knowledge of the concepts of "value", "value relationships", focuses on feelings of respect, responsibility, dignity and duty. Always applies this knowledge.

Intermediate level: has knowledge of the concepts of "value", "value relations", about some ideas about politeness, about the value foundations of responsible behavior; but does not always apply these norms.

Low level: the stock of knowledge about the concepts of "value", "value relations", about the value foundations of responsible behavior is very scarce; does not apply the norms of politeness and rules of behavior, almost never experiences a sense of responsibility, duty and conscience for completing assignments. During the implementation of the presented system of forming value relationships, the children of the experimental group reacted differently to the lessons. In the first lessons, most of the children actively participated in games, a small part of the younger students behaved wary. However, the playful nature of the lessons promoted the activity of all children.

CONCLUSION

Thus, in general, the process of the formation of value relationships such as a sense of responsibility, duty and conscience for completing assignments of younger schoolchildren in the educational process of primary school should be considered as an integral mechanism, which is

characterized by consistency and the presence of interconnected components that are actively involved in joint activities.

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PROSPECTS OF PROTECTING COTTON FROM COTTON SCOOP IN THE CONDITIONS OF UZBEKISTAN

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ABSTRACT

This article presents the prospects of protecting cotton from cotton scoop in the conditions of Uzbekistan. Due to the fact that the cotton bollworm occupies a special place in the agrobiocenosis of cotton fields, a lot of attention was also paid to this pest. Observations and counts carried out in the period after the entry of plants into the budding phase, and until the end of the season (experiments in 2017-2019) showed the results.

KEY WORDS: *protecting cotton, cotton scoop, cotton bollworm, cotton fields, pest, budding phase, plants*

INTRODUCTION

The cotton bollworm occupies a special place in the agrobiocenosis of cotton fields and a lot of attention was also paid to this pest. Observations and counts carried out in the period after the entry of plants into the budding phase, and until the end of the season (experiments in 2017-2019) showed the followings:

MATERIALS AND METHODS

On early developing cotton, the cotton bollworm begins its development earlier. The first generation of this pest begins to colonize plants in early June. But even earlier it completes in late August - early September, with the completion of the vegetation of plants. In the conditions of the Andijan region on cotton, the method of sowing cotton under the film (MPHPP), 3 complete and incomplete 4th generation of the pest develop, in the control - 3 complete (except for spring). And this requires making adjustments to the existing system of combating this pest. Namely, pheromone traps (PL) must be set first (and earlier than usual) on crops under film and effectively use the biomass. Secondly, the unusually early ripening of cotton unsettles the traditional timing of the preparation of the pest for wintering. This was especially evident in the results of earlier defoliation of plants.

As it known, in the usual sowing dates, the optimal timing of defoliation of cotton cultivated according to the MPHPP allows, due to the early maturity, to carry out this event 20-25 days earlier in

the second decade of August (Zakhidov, Turaev, 1997). The significance of these terms is that during this period there are different climatic conditions - air temperature and humidity, which make it possible to reduce the consumption rates of defoliants and biologically active substances. On the other hand, preparation of populations of cotton bollworm for wintering begins at this time (Larchenko et al., 1963). Carrying out chemical treatments during this period makes it possible to partially destroy and also poison the survivors during the wintering period (Belochuk, 1966; Miraliev, Zapevalova, 1974; Khodzhaev, 1978). Sublethal doses of insecticides are also acceptable for these purposes (Miraliev, 1969).

Of great importance in this is the method of sowing cotton seeds under film (MPHPP), the first initiators of which in Uzbekistan were the cotton growers of the Andijan region.

MPHPP has a number of features of sowing dates and agricultural techniques before the usual method. Due to this, the time of settlement and development of the main types of harmful organisms: diseases of seedlings, weeds and pests - herbivorous insects and ticks - proceed differently. This change makes its own adjustments in the historically established terms of the relationship between organisms and plants.

Therefore, to take these features into account, scientifically substantiated facts are needed for specific objects. In other words, it is necessary to study the course of these changes. Despite the fact that in the literature there are some references to the peculiarities of protecting cotton under the film, it



remained relevant, and they were included in the tasks of our research.

RESULTS AND DISCUSSIONS

In this work, we will focus on only one object - the main pest of cotton - the cotton bollworm (*Helicoverpa armigera* Hb), the success of the fight against which largely depends on the correct choice of the timing of treatments. There are reports in the literature that the success of long-term control of this pest depends on the poisoning of caterpillars during their preparation for wintering, i.e. for the conditions of Uzbekistan in the II-III decades of August, this can be done with the help of defoliant or special treatments using sub lethal doses of insecticides. The use of MPHPP makes it possible to successfully introduce this theoretical basis into wide practice, because there is a significant advance in the timing of cotton ripening, and therefore in the timing of pre-harvest defoliation. Such work was carried out by us in 2017-2019. In the conditions of Andijan district of Andijan region. On the basis of the experiments carried out, the acute and eligible for use, as well as some insecticides (arrivo and sumi-alpha), were established at a consumption rate reduced by 50%. Based on the results obtained, the following conclusions were drawn. (Table 1)

1. Deflation of cotton grown under the IPHPP has a detrimental effect on the development of the cotton bollworm. At the same time, the acute toxicity of defoliant is manifested due to the vulnerable stage of caterpillar development during the processing period.

2. The use of special insecticides in sub lethal consumption rates, at the time of defoliation of cotton according to the MPHPP, allows to obtain a higher acute and residual toxicity.

3. IPHPP, due to the early maturation of cotton and early defoliation, allows to reduce the number of cotton bollworms both this and next year. Defoliant include: Auguron Extra (0.1 l / ha), magnesium chlorate (7-10 kg / ha)

CONCLUSION

Due to the fact that the cotton bollworm occupies a special place in the agrobiocenosis of cotton fields, much attention was also paid to this pest. Observations and counts carried out in the period after the entry of plants into the budding phase and until the end of the season (experiments in 2017-2019) showed the following.

On early developing cotton, the cotton bollworm begins its development earlier. The first generation of this pest begins to colonize plants from the beginning of June. But even earlier it ends at the end of August, at the beginning of September with the completion of the vegetation of plants. In the conditions of the Andijan region, 3 complete and incomplete 4th generation of the pest develop on

cotton sown by the MPHPP, in the control - 3 complete (except for spring). And this requires making adjustments to the existing system of combating this pest. Namely, pheromone traps (PL) must be set first (and earlier than usual) on crops under film and effectively use the biomass. Secondly, the unusually early ripening of cotton unsettles the traditional timing of the preparation of the pest for wintering.

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DEVELOPING STUDENTS' PRODUCTIVE SKILLS THROUGH USING OPEN EDUCATIONAL RESOURCES ON THE BASIS OF BLENDED LEARNING

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ABSTRACT

This article describes an innovative blended learning method which combines a variety of approaches, supported by a flexible interactive platforms and open educational resources. The use of blended learning suggests that in the age of information technology modern methods of traditional forms in educational system can be optimally combined with the advantages of remote sensing technologies for developing students' productive skills and competence improvement.

KEY WORDS: *blended learning, online resources, foreign language, electron platform, information technology, productive skills, students of higher education*

INTRODUCTION

The role of education as the basis for the socio-spiritual, economic and political development of any society is determined by how important and relevant for social development are people's knowledge, their experience, and the improvement of professional and personal qualities. This role is constantly changing from the standpoint of the need to update competencies, which give rise to new ideas about the innovative development of education. Teaching foreign languages in general and English in particular, has undergone many changes in teaching methods, especially in recent decades, which is the reason for the development of a variety of innovative approaches and methods. The main theories, events, trends and technologies that have covered the process of teaching a foreign language in the last decade suggest the methodology more as a "product" of the current time, rather than as an educational system. The traditional system is not adapted to the rapid technological change in today's information-driven society. Thus, continuous improvement of content, methods and techniques are necessary for teaching students who are ready to become competitive specialists, who have the skills to think and act systemically, endowed with creative activity, leadership qualities, characterized by initiative and independence. Without a doubt, the role of the teacher is currently changing, the boundaries between him and the student are blurring, which facilitates collaboration. The role of the student, who

participates not only in obtaining knowledge, but also in their search, development and transformation into practical skills, is also growing.

MATERIALS AND METHODS

Involving students in interactive forms of work develops their interest and a creative approach to learning. Students understand that in the continuous stream of innovative development, it is necessary to have an advantage in order to look for ways to self-education purposefully. We can say that the new educational environment based on the use of information technologies cannot be fully implemented only within the framework of traditional full-time education. Accordingly, one of the ways to solve the current problem is to use it in the form of blended learning. The term "blended learning" first appeared in the late 90s and at that time was often associated with "an addition to traditional learning alongside e-learning." Charles Graham describes the historical emergence of blended learning as a convergence between a face-to-face environment and a computer [1, p. 7]. The pedagogical value of blended learning opportunities is significant to cover a much wider range of methods and approaches within an innovation method. According to Debra Marsh, today blended learning can be implemented in a simplified model of traditional activities and "tools", that is, learning tools to achieve an optimal learning environment. Elliot Messi also emphasizes that effective teaching is a



"mixed" acquisition of knowledge, meaning, of course, the use of e-learning as a priority area of teaching [2].

Based on the above definitions, blended learning can be defined as an innovative teaching method that combines flexible interactive platforms and resources that offer new approaches to improve skills and renew competencies.

Based on the definition, we distinguish 4 components of blended learning:

1. Classroom lessons in face-to-face mode under the guidance of a teacher or instructor. This format is a traditional form of teaching using interactive technologies in a computer class.
2. Online training. Combines various activities in the context of information technology, such as searching for information on the Internet, collection and subsequent analysis. As a rule, students master this type of training on their own based on the instructions received from the teacher.
3. Joint educational activity is the interaction of students in the worldwide network in a synchronous or asynchronous mode. The work is carried out jointly with the teacher, organized in the format of a webinar, using the Zoom platform, discussion forums on various educational platforms.
4. Independent teaching. The student searches for information on his own, receives it dosed within the framework of the knowledge that he acquired in the classroom.

Thus, of the above components within the framework of the study, the blended learning method can increase the effectiveness of the educational process in the context of the changing paradigm of modern teaching, if the components are applied in a methodically correctly organized, logical order [3]. N.V. Sidakova notes that the diversity of information and communication technologies reflects, as a result, the acquisition of knowledge by students in a metered volume. Great attention is being paid to mastering the distance learning method, which can be both an alternative and an addition to the traditional classroom lesson [19, p. 149]. Undoubtedly, an effective addition can be called the process of competently choosing an effective "blend" - an educational online resource, the correct selection of which ensures the productive work of a teacher in the framework of blended learning. argues that the concept of "open educational resources" (OER) first appeared in the late 90s at the initiative of a group of researchers from the Massachusetts Institute of High Technology, who identified this area as a digital learning object that allows teachers to openly use, copy and share auxiliary teaching materials [20, p. 334]. Richard Larson, defining OER as a significant part of the world's human heritage, emphasizes that

the use of educational online resources should be free and open [21].

As a result, open educational resources are online materials used to support teachings that are freely available for download on any media, including, can be reused, modified and distributed for educational purposes by any user. The most significant advantage of OER is the variety of materials, which can significantly save teachers time in preparing for the lesson and outline the way to implement new methods and approaches to teaching. Open educational resources are generally published and distributed over the Internet under a copyright license that allows free and unrestricted access to reuse.

The study of foreign languages makes up a significant part of the educational program at our university. Teachers put a lot of effort into the variability and flexibility of the learning process so that students are able to accumulate the maximum of the information offered in a limited number of classroom hours. Often, teachers have insufficient information on finding and analyzing effective resources simply because access to them is not announced on a global scale.

www.goconqr.com

GoConqr is an online platform for creating and sharing content in a variety of formats so that students can pursue their learning activities. The use of GoConqr tools within the classroom is aimed at collaborative work both in a group under the guidance of a teacher and independently from a home computer. This resource is suitable for conducting online discussions and testing knowledge in general. Students can brainstorm and practice vocabulary knowledge by creating Flashcards or Mind-maps, quiz tests in various variations, then share them through the "share" click. As for the instructors, they are in the role of the admin of the group, creating the relevant content of the tasks, which can be published or distributed to other users of the website who have similar directions of thematic tasks. For example, an administrator can create several groups for students of various specialties and levels of foreign language proficiency, and students, in this case, work only within the framework of the created content. The registration process is very simple and is carried out using Google or Facebook accounts, also by email.

www.thinglink.com

ThingLink is an interactive media platform that enables educators to create engaging content by adding multimedia links to selected elements of photos and videos. For example, a picture or video on a given topic is selected, a label is placed on individual objects, which in a special window of the site can be designated either simply by the definition of this object, or supplemented with a link to more detailed information on the Internet. Also, it is possible to track the interaction of other users with



your content, view the ways of distributing the created interactive illustrations over the Internet. From experience, we can say that students with great pleasure use this resource for academic purposes in a foreign language, as well as share the created interactive photos within the framework of other disciplines of their specialization. Registration on the site takes place using a Google account or self-registration using a username and password.

<http://presentme-edu.com>

Present.me is an interactive resource with which you can create, add and upload your own video and audio files. All the necessary content for quickly creating a video is freely available on this site. This application is distinguished by its simplicity and versatility. In addition, there is no need for specialized knowledge and skills in the technical field to use the offered online tools. As an educational platform, Present.me provides the opportunity to record a whole lesson or a separate topic so that students can watch it at any time convenient for them. The product created on the basis of this site is easy to share: you need to click "publish", then "share", after that you will be prompted to send your video by e-mail, via well-known social networks, or post it within your own blog.

All of the above Internet platforms and resources are designed to ensure effective interaction between teachers and students in a dynamically developing environment of blended learning.

CONCLUSION

In conclusion, we can say that the implementation of open educational resources, from our point of view, is a scientific novelty. The trend towards finding and analyzing new repositories designed to carry out the pedagogical activities of foreign language teachers to create a productive blended learning environment will continue. It was also determined that the information support of teachers is a significant part in the search for content, which makes it possible to integrate the innovative and technological achievements of various educational Internet resources. Further research into practical blended learning solutions is a promising avenue that complements the best innovative theoretical foundations and practical resources.

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JADIDISM IS THE SPIRITUAL BASIS OF MODERN GREAT CHANGE PRACTICE

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ANNOTATION

The article describes the life of the Jadids who revolutionized the path to state independence and the reforms they carried out in the education system. The serious enlightenment movement that emerged during this period not only carried out reforms in schools and education, the press, literature and art, but also completely changed the cultural, enlightenment and spiritual life of the people or did significant work in this direction.

KEYWORDS: *Jadid, press, enlightenment, culture, spirituality, ascension, education.*

DISCUSSION

Understanding the essence of the great changes taking place in Uzbekistan, which is taking bold steps on the path of ascension, requires a deeper look at history. Therefore, today the in-depth study of the history of the Jadid movement, their progressive ideas aimed at national liberation, enlightenment, and the transformation of society is of great social interest. Although the period of the history of the Uzbek people in the late XIX - early XX centuries was historically short, it is an important period in the historical destiny of the people. The serious enlightenment movement that emerged during this period not only carried out reforms in schools and education, the press, literature and art, but also completely changed the cultural, enlightenment and spiritual life of the people or did significant work in this direction. It is known that the word "jadid" means "new", "new". There has never been a place or time in the history of mankind when a novelty that has entered the harmonious life of a society has not met with great resistance.

The smooth running of society and human life will, sooner or later, lead to decline. That is why the leading intellectuals of the nation "develop" new ideas to combat or prevent the decline that began yesterday in society and human life. But some people who live in the "warm heart" of this recession, and who have developed the ability to do so, welcome these vital ideas with a spear. This was the case in Central Asia in the late 19th and early 20th centuries. In Turkestan, Bukhara, and Khiva, as well as in some foreign countries of the East, the Jadid Enlightenment movement faced great obstacles. Today, more than

100 years later, when we study the history of the modern Enlightenment movement in Turkestan under the leadership of M. Behbudi, we can see how they opened new schools, founded the national press, laid the foundation for new literature and theater we must consider their efforts as devotion and courage. But the strange thing is that this historical fact has not been recognized for a long time. The Jadids were condemned both during Tsarist Russia and during Soviet rule. The process of restoring historical justice associated with their activities has taken a long time. It was only after the independence of our people and the desire to study the activities of serious enlighteners in society that this movement began to be studied on a large scale.

It is gratifying that scholars from Europe and the United States have also embarked on such a commemorative work as the study of the Jadid Enlightenment movement in Turkestan. Now the study of the activities of the modern enlightenment movement and its representatives has risen to the level of an important scientific and practical project on an international scale. Uzbek scholars have made great strides in studying various aspects of the modern enlightenment movement. The works of almost all Jadid writers have been published and presented to the public. A new method school, many works devoted to the study of the history of the national press, literature and theater, have emerged. But for various reasons, the movement has not yet lost its "untouched" sides.

The Jadid movement in Central Asia has come a long way in history. The Jadids sought to rework this experience on a national basis, relying on the



philosophical experience of development, reform efforts in different countries, and at the same time became a battleground for different views on the paths of social development. The main idea of the struggle against colonialism was formed in this complex way.

Jadidism is a movement based on world social and national values, formed as a movement that meets the interests of the indigenous peoples of Central Asia and can fully meet the mature needs of social development. Jadidism has come a long way from enlightenment to a strong political movement. Jadidism has gone through two stages in its history.

The first is the enlightenment phase and the second is the political phase. However, it can be said that the views of the Jadids on the issue of statehood began to take shape in the first period and took a definite shape in the second stage. The difficult economic situation of the people, oppressed by bilateral colonialism and local oppression, the fact that the khanates of Turkestan, Bukhara and Khiva lag far behind the economically developed countries of the world, cultural decline and lack of free thought prompted the Jadids to seek social development.

Mahmudhoja Behbudi and Munavvar qori Abdurashidkhonov, the leaders of the Jadid movement in Turkestan, played a unifying and unifying role. In Bukhara, Fayzulla Khodjaev and Abdurauf Fitrat, and in the Khiva khanate, Polvonniyoz Yusupov led the movement. The Enlightenment ideology of the Jadids was socially much richer and more diverse. Among the historical tasks and issues that excite and excite the society even today are the correct understanding of religion, the acceleration of the process of creating a legal and economic market space, the creation of advanced democratic institutions, specific national developments.

An important factor in the implementation of these issues is the modernization of Islam, its purification from rigid doctrines, and the problems of mastering the achievements of science and advanced technology. The international contacts and relations of the Jadids allowed them to get acquainted with the program of the Jadids of Russia, Turkey, Egypt and Iran.

But the experience of the young Turks in Turkey and the progressives of Iran was not mechanically assimilated by the Turkestan Jadids and in the same pattern. On the contrary, the Jadids have taken the necessary places in the interests of the people and the national culture from the broad experience of state-building and legislation of European and Eastern countries, from the methods and programs of the democratic struggle of the peoples of Russia and the East against colonialism.

The First World War, which began in 1914, greatly politicized the ideas of the Jadids. By this time, they had written about the parliamentary

monarchy, trying to develop ways and means for the participation and participation of citizens in the formation of state bodies, in the legislative work, in the governance of the state. The sharply moving part of the Turkestan Jadids, who formed the stream of progressives before the democratic revolution in Russia in February 1917, put forward a number of broad political demands. These include radically reforming the country's administration to expand the rights of indigenous peoples, giving Turkestans a certain amount of seats in the State Duma, ensuring basic democratic freedoms and, above all, freedom of the national press, and replacing the tsarist monarchy with a constitutional one. requirements were included. After the new state system established as a result of the February democratic revolution, the Jadids began to raise the issue of establishing the autonomy of Turkestan within the Russian Federation.

By this time, national socio-political organizations and parties were formed, in particular, the Jadids formed such organizations as "Shura Islamiya", "Turan", "Union". During 1917, the Jadids followed the various social strata of the local population, creating a sense of the need for Muslims to unite and unite among the people, in their minds and thoughts.

However, the Jadids soon witnessed that the Provisional Government and its specially formed Turkestan Committee (Turkkomitet Vremennogo Pravitelstva) had not abandoned their previous colonial policies in the country. In particular, this happened during the convening and preparation of the Constituent Assembly, scheduled for November 1917. The Provisional Government has failed to address the fundamental issues that have been raised, without going beyond its narrow, selfish interests.

As a result, when there was a change in the political system, important socio-economic, agrarian, national, peace issues remained unresolved in practice. This has led to a dead end in the life of the country, which has led to an increase in tensions and recessions. Realizing that it was time for a life-and-death struggle for independence and autonomy, the Jadids began to harshly and ruthlessly criticize colonialism, abandoning the ideas of the previous constitutional monarchical system and demanding national territorial autonomy for Turkestan within the Russian Democratic Federal Republic. Another of the unique services of the Jadids in those years was the promotion of the idea of equality of all peoples and nations before the law, according to which the citizens of Turkestan should have equal rights in all economic, political, legal and cultural spheres of society. The Jadids of Turkestan found it necessary to implement their ideas of state independence in coordination with the various social forces of the country.



The Jadids tried hard to get a seat in the Constituent Assembly, even in the process of splitting into organizations such as the Shura Islamiya, a progressive group, and the Ulema Society, a conservative Jadid group. Led to the formation of the Turkish Human Rights Center. However, the events of October 1917 in Turkestan, the coming to power of the Bolsheviks did not allow the Jadids to achieve their goals.

Nevertheless, based on the declaration of the new Bolshevik government that each nation determines its own destiny, they convened the IV Extraordinary Congress of Muslims in Kokand on November 26, 1917 and proclaimed the Autonomy of Turkestan based on the right of autonomy within the Federal Russian Republic. The history of the Autonomous Republic, which lasted only three months, consisted of bloody pages, the Jadids were persecuted, and by 1937 many were persecuted because their ideological views did not conform to Soviet ideology. The role and value of Jadidism in our history is that it first laid the foundation of the national ideology of independence, awakened and opened the eyes of the oppressed East, about freedom, liberty, national pride and honor, great ancestors, rich culture, forgotten values during colonial oppression. he shouted.

The Jadids were opposed, on the one hand, by fanatical priests and, on the other, by colonial rulers. The fanatical priests opposed all the news raised by the Jadids. They said that the Jadids were patriarchs and that in their schools "in the first year the students would read the newspaper, in the second year they would demand freedom, and in the third year they would overthrow their superiors." Fans believed that describing and teaching history was nonsense, atheism. Explaining them, M. Behbudi argues that both the Qur'an and the hadiths of the Prophet Muhammad are related to history, and that a quarter of the Qur'an consists of historical information. The efforts of the Turkestan Jadids to establish newspapers, charities, the spread of new methodological schools, theatrical work, and all other activities served for a national idea. He stressed that in order for any idea to become a national idea, it must meet two requirements: 1) the idea must come from the real needs of the nation, its way of life, centuries-old traditions and, of course, its capabilities; 2) this idea must be understood by the nation, in other words, nationalized. That is, the idea must reach the heart of every representative of the nation. In an article entitled "Our deeds or aspirations", Behbudi analyzes the daily life of Turkestans from various events, weddings to national games, and calls on the people to open their eyes and look at the affairs and life of the surrounding nations. He urges the people to abandon wasteful activities and direct the funds spent on them for the education of children in public educational institutions in order

to train national staff in all sectors of the economy. Behbudi calls these actions national affairs, lofty goals, desires and aspirations

Abdurauf Fitrat, in his article entitled "The Qur'an", thinks about the development of the nation and tries to explain his thoughts through the verses of the Qur'an that glorify the study of science. Fitrat compares the Qur'an to a social law capable of making any nation happy and strong. He also likens the situation of the Muslims at that time to the "period of ignorance" lived by the Arabs before Islam. Fitrat sees in the Qur'an that all Muslims should strive for happiness and progress. At the end of his article, Fitrat asks Turkestans: "Do we not remember calling ourselves human and acting like real human beings? Will we not understand our ignorance until the Day of Judgment and will not be able to look for the causes and find solutions?" In general, the great historical services of the Jadids are that they developed on the basis of an evolutionary reform path in solving mature social problems, proposed the most effective way of socio-periodic system change, and demanded the abolition of the colonial order. The Jadids of Turkestan, Bukhara and Khorezm did not have the same path, but each had its own characteristics.

But their conceptual ideas served as the spiritual foundations of the practice of great change of the present period, emerged as the direction of comprehensive reforms and the hereditary core of today's strategy.

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DISTRIBUTION OF MATRIX ARGUMENT FUNCTIONS IN THE FURE TRIGONOMETRIC SERIES

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ABSTRACT

It is Well known that the distribution of functions of real variables in the Fure trigonometric series is well studied. Here we consider functions with matrix variables and the analog of the Fure series for functions with matrix arguments for them.

KEY WORDS: *complex number, matrix, unitary matrix, the theorem of Schur the diagonal, its value, the number of the Fure, the matrix of the upper triangle.*

РАСПРЕДЕЛЕНИЕ АРГУМЕНТАЛЬНЫХ ФУНКЦИЙ МАТРИЦЫ В ТРИГОНОМЕТРИЧЕСКИЙ РЯД ФУРЕ

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Аннотация: Хорошо известно, что распределение функций действительных переменных в тригонометрическом ряду Фуре хорошо изучено. Здесь мы рассмотрим функции с матричными переменными и аналог ряда Фуре для функций с матричными аргументами для них.

Ключевые слова: *комплексное число, матрица, унитарная матрица, теорема Шура, диагональ, собственное значение, ряд Фуре, матрица верхнего треугольника.*

Дано комплексное пространство C . $M_n(C)$ определяем пространстве всех n порядковых матриц. В этом пространстве, согласно теореме Шура, для матриц A, B существует унитарная матрица $T \in M_n(C)$ такая, что выполняется уравнение $B = T^{-1}AT$, где B - высокотреугольная матрица. Теперь $q_i(x)$, $i = 1, \dots, n$ - действительные многочлены, каждый из которых удовлетворяет условию $q_i(0) = 0$. Обозначим рациональные дроби через $C(x)$. Давайте посмотрим на дело $B \in M_n(C(x))$.

Рассмотрим следующую диагональную матрицу:

$$d(q_i(x)) = \begin{pmatrix} q_1(x) & . & 0 \\ . & . & . \\ 0 & . & q_n(x) \end{pmatrix}$$

Если мы посмотрим на $B(q_i(x)) = B + d(q_i(x))$, эта матрица также принадлежит $B(q_i(x)) \in M_n(\mathbf{C}(x))$. Выберем $q_i(x)$ так, чтобы элементы $B_{ii} + d(q_i(x))$ были разными. В этом случае собственные значения матрицы $B(q_i(x))$ различны, а $\exists S \in M_n(\mathbf{C}(x))$ - обратимая матрица, которую можно использовать, чтобы сделать матрицу $B(q_i(x))$ диагональной.

$$S^{-1}B(q_i(x))S = \begin{pmatrix} B_{11} + q_1(x) & . & 0 \\ . & . & . \\ 0 & . & B_{nn} + q_n(x) \end{pmatrix} \quad (1)$$

Если мы скажем $x = 0$, правая часть (1) будет

$$\begin{pmatrix} B_{11} & . & 0 \\ . & . & . \\ 0 & . & B_{nn} \end{pmatrix}$$

Отсюда следует, что левая часть (1) также равна $x = 0$ выше.

В таком случае

$$B = B(q_i(x))|_{x=0} = S \begin{pmatrix} B_{11} + q_1(x) & . & 0 \\ . & . & . \\ 0 & . & B_{nn} + q_n(x) \end{pmatrix} S^{-1}|_{x=0} \quad (2)$$

Здесь мы обозначаем $|_{x=0}$ и $x = 0$.

Если мы говорим $A = TBT^{-1}$ и $T_1 = TS$, то

$$A = T_1 \begin{pmatrix} B_{11} + q_1(x) & . & 0 \\ . & . & . \\ 0 & . & B_{nn} + q_n(x) \end{pmatrix} T_1^{-1}|_{x=0} \quad (3)$$

Или вы можете записать его в виде следующего ограничения на переменную x .

$$A = \lim_{x \rightarrow 0} T_1 \begin{pmatrix} B_{11} + q_1(x) & . & 0 \\ . & . & . \\ 0 & . & B_{nn} + q_n(x) \end{pmatrix} T_1^{-1} \quad (4)$$

Дана матрица A с уникальными числами $\lambda_1, \lambda_2, \dots, \lambda_s$.

Рассмотрим скалярную функцию f с производной $m_k - 1$ -порядка около λ_k , $k = 1, \dots, s$. В этом случае для матрицы $f(A)$ с функцией аргумента и фиксированным x вокруг нее определяется $B_{ii} + q_i(x)$, $i = 1, \dots, n$, а для матричной функции f выполняется следующее уравнение:

$$f\left(T_1 \begin{pmatrix} B_{11} + q_1(x) & \cdot & 0 \\ \cdot & \cdot & \cdot \\ 0 & \cdot & B_{nn} + q_n(x) \end{pmatrix} T_1^{-1}\right) = \left(T_1 \begin{pmatrix} f(B_{11} + q_1(x)) & \cdot & 0 \\ \cdot & \cdot & \cdot \\ 0 & \cdot & f(B_{nn} + q_n(x)) \end{pmatrix} T_1^{-1}\right)$$

(4) следует из уравнения

$$f(A) = \lim_{x \rightarrow 0} T_1 \begin{pmatrix} f(B_{11} + q_1(x)) & \cdot & 0 \\ \cdot & \cdot & \cdot \\ 0 & \cdot & f(B_{nn} + q_n(x)) \end{pmatrix} T_1^{-1} \quad (5)$$

Теорема: Если скалярная функция действительной переменной f разложена на тригонометрический ряд вокруг одного из матричных чисел A , то следующее уравнение выполняется для всех окружающих x :

$$f(x) = \frac{a_0}{2} + \sum_{k=1}^{\infty} a_k \cos kx + b_k \sin kx$$

В этом случае имеет место следующее уравнение:

$$f(A) = \frac{a_0}{2} I + \sum_{k=1}^{\infty} a_k \cos kA + b_k \sin kA$$

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ANALYSIS OF ECONOMIC AND CULTURAL RELATIONS IN THE SURKHAN OASIS IN THE EPOCHE OF BRONZE AND EARLY IRON

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ABSTRACT

In this article, the author covered the issues of economic and cultural deception of ancient Bactrian-Surkhan Oasis in the Bronze and early Iron Age. The article provides a comparative-scientific analysis of a large amount of archaeological data on this topic, and gives scientific conclusions about the interaction of the population of Surkhan Oasis with Iran, India, Afghanistan and Pakistan in the Bronze and early Iron Age, migration processes in the regions, the exchange of cultures.

KEYWORDS: *Bronze and early Iron Age monuments belonging to Surkhan Oasis, stone and ceramic seals, jewelry items, archaeological data, economic and cultural relations, Kulli culture in the south of Beluzhistan, bronze windows, Shortokay monument, Harappan culture.*

1. INTRODUCTION

As a result of the study of Bronze Age monuments in Surkhan Oasis, the boundaries of the location of the agricultural population with a common material culture in the regions of Southern Turkmenistan (Копетдоғ олди, Murgab Oasis), Northern Afghanistan and Southern Uzbekistan were determined. It is natural that the representatives of the communities that formed the basis of this culture did not develop separately from one another; and in various studies the study of the main causes, factors and features of ancient economic-cultural relations became an important task.

The theme of the economic and cultural relations of Surkhan Oasis in the bronze and early Iron Age were enlightened in the publications of A.A. Asqarov, T.Sh. Shirinov, U.V. Rakhmonov, B.N.Y. Abdullaev, E.V. Rtveldze, A.S. Sagdullaev, Sh.B. Shaydullaev, D. Khuff and N.A. Avanesova[1].

In their research, U.M. Mavlonov, D. Makhkamov, B.J. Eshov widely used the archaeological sources belonging to Surkhan Oasis and related to the current subject[2].

Initially, in his monograph published in 1973, A.A. Askarov compared bronze, stone and ceramic seals found in Sopollitepa, bronze vessels, windows and jewelry found in North-East Iran, South Afghanistan, Pakistan monuments (Khisortepa, Shahtepa, Mundigak, Shakhri Sokhta)[3]. The prevalence of similar items in a wide range of

Regions is evidenced by the wide development of economic and cultural relations between different elates and tribes. The wide prevalence of findings similar to items of Sopol culture in Iran, Southern Turkmenistan and Pakistan, the study of the causes and factors of this process on the basis of archaeological materials was of great importance[4]. At the same time, in the Bronze Age monuments of Southern Uzbekistan and Southern Tajikistan, ceramic vessels and bronze items belonging to the culture of the cattle breeding steppe tribes have been found, the issue of directions of economic and cultural relations is included in the science work.

2. THEORY

In the articles written by E.V. Rtveldze and A.S. Sagdullaev in the 70-80-ies of the XX century, it was noted that the problem of Surkhon Oasis in domestic and foreign economic and cultural relations, the role of ancient Bactria in general, the problem of trade routes of the bronze and early Iron Age were not sufficiently studied [5]. The main reasons for these cases are connected with the fact that the written sources were not known and the existing archaeological materials were not used.

In his further research, A.S. Sagdullaev specially analyzed the topic of the formation and development of the most ancient ways of communication in the south of Central Asia, making the following conclusions:



- In the Eneolithic and Bronze Age, observe the expenditure of inhabiting lands for dervishes, farmers and herdsmen and the location of the population in the oases of various rivers were observed;

- Ancient roads passed through the rivers, the mountains, steppes and deserts;

- These roads were used in the development of water resources, irrigated lands, springs, natural resources – copper, tin and lead deposits[6].

In A.A. Askarov and T.Sh. Shirinov's monograph, the issue of trade turnover and the most ancient ways of communication in Central Asia was considered[7]. The researchers noted that the following factors were important in the formation of continuous economic relations and trade and exchange routes between the tribes:

1. Specialization of farming and livestock farms;

2. The separation of craftsmanship from farming;

3. Growth in production and the emergence of additional products;

4. Desire to increase of material wealth (jewelry);

5. The process of deep social stratification in society;

6. Availability of rare mineral resources in some regions[8].

In our opinion, factors such as the process of deep social stratification and the pursuit of material wealth in the above-mentioned society did not initially play an important role in the formation of turnover and economic communication paths. Even in the history of primitive society, where strong social stratification did not develop, the emergence of turnover and first contact roads was associated with the need to meet the economic needs of communities, to possess food, water resources and raw materials[9].

A.A. Askarov and T.Sh. Shirinov compared the seals made of stone and metal found in Sopollitepa and Zharkutan with the seals of the culture of Elam and Harappa, concluding that the inhabitants of the Bronze Age Surkhan Oasis established trade relations with far regions[10].

V.M. Masson drew his attention to the findings of bronze-to-glass in the archaeological complexes of the Kullian culture of the Bronze Age in the south of Belarus. Such windows are also found in Sopol and jargon. According to the researcher, the production centers of these items of craftsmanship are located in Bactria[11].

T.Sh. Shirinov noted that the interaction of Sopol and Kharappa culture is evidenced by items made of ivory found in the monuments of southern Uzbekistan[12].

A.S. In an article by sagdullaev on the topic "Central Asia and India: formation and development

of the ways of the first historical – cultural relations", two directions have been shown that lead from India to the regions of northern Afghanistan and southern Uzbekistan. According to the researcher, one of them went from the shores of the Arabian Sea To The Indian River, the city of Rahmon Dheri, which is located at the top of this river. In this place, a second road was added to it, passing from the Gang Valley to the city of Harappa. The Indian road through the mountains of the Hindu Kush led to the shorthand, steppe and Sopolli[13].

To a certain extent, researchers conducted research on the ways of cultural relations, trade links, including those that existed in Central Asia during the Bronze Age, linking them with India[14].

3. STATEMENT OF THE PROBLEM

On the basis of archaeological materials, the cultural ties of Harappan culture with Bactria are widely covered. The study of the Shurtukai monument on the territory of Bactria served as the basis of this topic[15].

The monument of Shortokai is located on the left bank, on the upper reaches of the Amudarya. According to **A.P.Frankfore**, the Shortokai monument was the northern trading hub of Harappan culture, which served as the main base for the deposits of lapis lazuli.

Archaeological materials found in the Shortokai serve as a source not only for cultural relations, but also for resolving the issue of ethnic processes. **A.P.Francophore** wrote about the role of local Bactrian culture in the emergence of the Shortokai[16], associated with the origin of seals found in the Shortokai and the images expressed in it and P. Supported the theory of Ame – the cultural influence of Alam[17]. It is known that such seals were also found in the Bronze Age monuments of the Surkhan Oasis. V.M. Masson analyzed the theory of the spread of the Elam language from Turkmenistan to the Indian Valley in the III millennium BC, and the linguists D. MAK Alpine and I.M. Dyakonov supported his thoughts[18].

4. DISCUSSION

As a result of the new research carried out in Zharkutan in recent years, new data on cultural relations between Bactria and Harappa have been collected. A.A. Askarov and T.Sh. Shirinov, along with Sh.B. Shaydullaev also drew their attention to this topic[19].

As a result of the research carried out in the Zharkutan, two ivory sticks in the form of square were found on the top №5. On the surface of the two pieces nine ornaments of a circle shape were drawn, which were located in three rows three per each[20].

Items made of the same ivory are widely distributed in the monuments of Harappan culture.



They are also found in the Mesopotamian regions, where researchers consider these items to have been brought from Harappa and Mohenjo daro. This item made of ivory is most often found in the Bronze Age monuments of Central Asia[21]. The distribution areas of these findings are very extensive and include the southern regions of India, Mesopotamia, Iran, Central Asia. The researchers consider this finding to be a "children's toy" [22]. In our opinion, the fact that this find is made of ivory itself is an indication that it is valuable. This finding served as a means of payment in the regions that were within the influence of Harappan culture. As proof of this opinion, Sh.B. Shaydullaev recalled the finding made of ivory in the form of 11 squares, 2 circles and 8 sticks in a single ceramic vessel found in Altin Depe[23]. These findings differ in the number of "decorations" in the shape of the circle expressed on the surface. Another noteworthy aspect, as Sh.B. Shaydullaev writes, is that in the center of these items there is one large circle. In addition, the circumference of the circle is filled with rhombus-shaped parallel lines. According to the researchers, the number of circles expressed the value of the present invention, indicating the number of dots expressed in this ancient Oriental inscription – hieroglyphics, in a circle[24]. These items made of ivory are not likely to have performed a means of payment in trade in areas that were under the influence of Harappan culture.

With the means of payment in trade. V. M. Masson said that gold, silver, precious stones - fulfilled the means of payment with lapis lazuli, and stated that the mutual exchange took the lead role in the trade[25].

The discovery of a ceramic figurine with an image of an elephant at the Zharkutan monument serves as a source of knowledge, confirming that this place had an inseparable cultural connection with Harappan culture[26]. The style of production of this statuette is characteristic of Zharkutan ceramics. In addition, the elephant is not peculiar to the animal world of Central Asia. In the monument, two astragals, made of ivory and black stone, characteristic of ancient Eastern civilizations, were also found[27].

According to T.SH. Shirinov, The discovery of ceramic dishes characteristic of Sopolli culture in the Bronze Age monuments of Northern Iran or the settlement of Representatives of Harappan culture to the Shortukay and the establishment of mutual trade and cultural relations, the discovery of numerous seals confirming the cultural connection of the population of Bactria with the Hetts through Iran prove that economic-cultural relations of the population of Sopolli and Zharkutan implemented in a wide range of Regions[28].

V.I. Sarianidi and G. Herman revealed the importance of Bactrian lapis lazuli in the art of ancient Eastern jewelry, concluding that the "Great

lapis lazuli Road" testifies to a long trade relationship[29].

In our opinion, the establishment of ancient economic relations allowed the development of the production of various crafts items. Depending on the quality of the handicraft items of Sopolli culture, they can be described as items produced for trade[30]. Based on archaeological data, the Bronze Age economic and cultural relations of the population of Southern Uzbekistan were carried out in the following directions: Belarus, India, Southern Afghanistan, South Turkmenistan, Iran and Western Asia.

The achievements of the population of Sopolli culture in the fields of farming, crafts and trade are one of the main factors in the formation of the culture of the first cities and statehood.

The research carried out at the Bronze Age monuments of the Surkhan Oasis and the archaeological materials found made it possible to enrich it with new information to explore the links between the farmer and cattle breeding steppe tribes. It is known that in the Zharkutan ceramic vessels, the surface of which was manually covered with geometrical engraving patterns were found[31]. These dishes are similar to dishes of Andronovo culture, spread in the steppes of West Siberian and Kazakhstan. In the literature, there is enough research on the influence of Andronovo culture on the traditions of farmers culture ceramics[32], and on its influence on the pottery of pastoral cultures[33]. Even at the Zharkutan monument, the establishment of cultural relations with the pastoral tribes was proved on the basis of archaeological sources. It is noted that these ties belong to the last stages of Sopolli culture[34].

Thanks to the research conducted in the 90s of the XX century in the cemetery of Buston VI V.A. Avanesova studied here the burning of corpses – the remains of "crematoria" [35]. The researcher wrote that from the layers of ash the remains of the burnt bones of man, fragments of Andronovo culture ceramics were also found along with ceramic dishes of the last stage of Sopolli culture. The emergence of the tradition of burning a corpse in Sopolli culture can be regarded as the impact of Andronovo culture.

In the monuments of the Bronze Age of Central Asia, the occurrence of ceramics characteristic of the Andronovo culture indicates the location of the pastoral tribes due to migrations in different regions of the region.

In archeology, archaeological research carried out in Zarafshan Oasis in the field of cultural relations between the cattle-breeders and the farmers is noteworthy. As a result of the study of monuments of Zarcha Klifa, Dashti Qozi, Tokayli, Zhom, Zarafshan Oasis was concluded as "economic and cultural communication area" of cattle-breeder and sedentary tribes[36].



It should be noted that in the Bronze Age monuments, which were found in Southern Tajikistan, the traditions peculiar to the culture of steppe cattle – breeders were identified, along with them ceramic vessels and metal objects characteristic of peasant culture were found in various monuments (Wakhsh 1, **Tigrovaya balka**, Aykul, Jarkul cemetery-fortresses). B.A. Litvinsky initially connected the history of their origins with the valley of Vakhsh and the Bronze-Age farmers who moved from Southern Turkmenistan[37]. Thus, in the mentioned process, migrations were of great importance in relation to cultural and economic relations.

As a result of archaeological research carried out in the 70-80-ies of the last century, Bronze Age settlements such as Kangurtut, Tegozak and Daxana were found and investigated in Southern Tajikistan[38]. In the pottery **charh** ceramic dishes, metal items and peasant stone weapons found in these monuments belong to the Mullali period of Sopolli culture; and as L.T. Pyankova noted that they emerged in the result of migrations of the Bronze age population of Southern Uzbekistan in Kafirnikhan and Vakhsh Plains[39]. This evidence can be based on the idea of the migration of the inhabitants of the Bulali and the Zharkutan in Surkhan Oasis to the regions of Southern Tajikistan during the late Bronze Age, on newly assimilated lands, the engagement with lapis lazuli, cattle breeding and farming. Such evidence is not the only one. In this regard, the issue of cultural-economic relations and the combination of migrations is of great importance for researchers.

In 2005, Shagim cemetery-fortification related to the Bronze Age was discovered around Uzgen (Ush region) and investigated [40]. Among found items in this monument, there were bronze pins, mirrors, daggers and other items. The researchers note that these findings belong to the material culture of the Bronze Age Of Northern Bactria and belong to the first phase of Sopol culture[41]. Khak, Afrotun treasure items and Chust culture in Fergana Valley testify to the fact that the external cultural and economic relations of the local ancient population have developed since the Bronze age[42]. The findings of Shagim cemetery-fort confirm the existence of such relations between the inhabitants of Surkhan Oasis and Fergana Valley.

L.M. Sverchkov and N. Boroffka, comparing the archaeological materials of Bandikhan 1 (Maydatepa) from ceramic vessels and stones found in the Bronze Age Sintala and Kuhu cemetery-fortifications in Tarim Oasis (**Shinjiang**), revealed the issues of the population migrating from Tarim Oasis to Surkhan Oasis because of climate change [43]. However, the researchers did not clearly reveal the reasons for the migration of tribes from Shinjiang to Surkhan Oasis. In our opinion, in different regions, the exchange of dishes and weapons, close to each

other in terms of patterns and shapes, can also spread due to economic ties.

As a result of the study of archaeological materials of monuments such as Sopolli, Zharkutan in Surkhan Oasis, Dashtli in Northern Afghanistan, the subject of economic and cultural relations was reflected in a number of foreign studies, including the issues of relations between the sedentary and nomadic pastoral tribes. In this regard the articles such as K. Lamberg-Karlovsky's "The Bronze Age of Bactria" [44], **P. Ame's** "Elam and Bactria" [45], M. Tozi's "the Origin of the First Civilization in Bactria" [46] are from among these.

K. Lamberg-Karlovsky describes that in the development of Bactrian culture, the cultural ties of the cattle breeding and peasant tribes were important.

P. Ame believes that farming and livestock population contributed greatly to the emergence of Bronze Age cultures in ancient Bactrian territories, including Southern Uzbekistan[47].

M. Tozi writes that livestock and farming in Central Asia developed harmoniously, economic and commercial relations coordinated them; and the presence of rich materials in the tombs of Sopollitepa was a custom peculiar to pastoral tribes[48].

In our opinion, the ancient Eastern countries (India, Elam, Sumer) played an important role in the first economic and cultural ties of Bactria, relations with cattle breeding steppe tribes widely developed in the second half of the II millennium BC as a result of their migration to the southern regions of these tribes. On this basis, the process of ethnocultural synthesis – the process of joining occurred.

In relation to the Bronze Age, the problems of economic and cultural relations of the early Iron Age of Surkhan Oasis were not adequately covered. This issue was analyzed mainly in connection with the problems of origin and spread of the archaeological finds of the Kuchuk I, II and Kizil I, II[49]. At the same time, because of socio – economic changes in southern Uzbekistan, it was noted that communication and trade routes and economic and cultural relations develop on new grounds [50]. This issue was analyzed as a result of the comparison of the archaeological materials of Bactria, Margyona, Sogdia, Chach and Fergana[51].

5. CONCLUSION

Based on the study results on the topic of economic-cultural relations, the following conclusions can be drawn:

1. This topic was originally covered in the literature of the 70 – ies of the XX century on the basis of archaeological data of the Bronze Age of Surkhan Oasis, and the materials of Sopol culture were compared with items found in the Bronze Age monuments of Iran, South Turkmenistan, South Afghanistan and Pakistan;



2. In the articles published in 80 – ies, the issue of Surkhan Oasis in domestic and foreign economic and cultural relations, the role and importance of the ancient Bactria in general was revealed, and the problems of the Bronze and Iron Age trade and communication ways were analyzed;

3. In the 90-ies of the last century, in the publications of the researchers, based on new archaeological data, the external relations of the Bronze Age farmers of Southern Uzbekistan were connected with the directions of Belujistan, India, South Afghanistan, South Turkmenistan, Iran and Western Asia;

4. Various data confirm that the economic and cultural relations of the ancient population of Surkhan Oasis cover a wide range of territories and demonstrate the existence of long trade relations;

5. In the literature of the beginning of the XXI century, in the Bronze Age monuments of Southern Uzbekistan, the discovery of ceramic vessels and metal objects characteristic of the Andronovo culture was interpreted in connection with the migration processes of the cattle breeding steppe tribes. At the same time, the discovery and investigation of Sopol culture items in the regions of Southern Tajikistan, Zarafshan Oasis, Fergana Valley (Uzgan) allows to study the directions of migrations of agricultural tribes. In this regard, the issue of the transfer of economic and cultural relations and the combination of migrations is of great importance for researchers.

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THE CONCEPT OF LINGUA - COACHING IN HIGHER EDUCATION AND ITS APPLICATION IN ESP CLASSES

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ABSTRACT

This article is about a new approach, lingua-coaching, in language learning and applying it in ESP classes. Several methods were experimented in order to analyze and see the results of the coaching. Furthermore, the theoretical part was also given to identify the term of coaching.

KEYWORDS: Coaching; ESP; mosaic; communicative approach; higher institution.

INTRODUCTION

The serious changes that are emerging in the country complicate the social life of human-beings. Currently, it is clearly noted the transition from a strictly regulated life to the established flexible relationships. In this connection the society dictate the request for the improvement of free, communicative, and active performance to the system of higher professional education realizing the right of choice, acting consciously and responsibly. Therefore, in this background “coaching” as a modern approach plays the role of a moderator to the institute of higher education that is capable to the accomplishment of its potential possibilities, making responsible decisions in various situations.

The **topicality** of the present research is to provide the justifications that the quality of modernization of contemporary higher education depends to a large extent on the character of innovation processes and is determined by the features of the introduced novelty, the innovative potential of the environment and the teaching staff.

One of these processes, in our opinion, is coaching, the **aim** of which to create the opportunities for the activity in making responsible decisions in various situations of life choice, as well as predicting their possible consequences.

The **research problem** in this work is the relationship between the teacher and students, where the former effectively organizes the process of finding the best solutions to their issues and implementing them. A coach helps students develop, learn new skills, and achieve high results not only in communication activities, but also in their future profession.

The **importance** of this research is to emphasize the implementation of coaching in the

system of learning foreign languages in higher institutions due to the coach's non-standard approaches in solving many problems as well as its ability to create an indicative basis for solving professional issues. This is based on the meaningful use of knowledge in the relevant field. Wholly, the coach promotes self-realization of the personality through the profession, makes it possible to build norms of professional ethics. It is believed that it is especially essential for future linguists, since their field of activity is directly related to the interpersonal interaction. As future specialists, on the last stages of training, really need to assess their abilities and capabilities, and if necessary to improve the results.

THE ORIGINATION OF THE TERM “COACHING”

Originally, the term “coach” was firstly used in connection with a consultant or a tutor who “carries” or “assists” a student throughout an exam in Oxford University slang approximately 1830 [1]. Consequently, the word “coaching” was recognized as a process made practical and effective transfer human-beings from where they are to where they want to be.

The term “coaching” was mostly related to the sport or business meaning professional relationship that assist people to achieve spectacular results in their life career and business [2]. However, this phenomenon became one of the advanced approach in the science of pedagogics, especially, in language learning, where the term “lingua-coaching” has been occurred.

Lingua-coaching is a contemporary trend or method of the XXI century in the learning of a foreign language [3] that helps ESP students to attain established goals and improve their professional



results by mobilizing internal potential, developing advanced strategies to obtain results and fulfill necessary abilities and skills.

According to Tom Batler Boudon, coaching is not only the methodology that can be introduced and applied in strictly certain situations. It is the method of controlling, communicating with people, thinking and existing [4]. Admittedly, the coaching does not teach, it aims to regulate how to reveal the hidden talents or skills of students.

It is important to note that the adaptation of higher education to rapidly changing conditions in social, economic, political life can only happen on the basis of a positive attitude to the personality of the student by revealing their capabilities. In my opinion, coaching acts as a powerful tool for promoting both personal and communicative development of students.

The evidence from this studies suggests a variety of factors about the alteration of study of foreign languages on Uzbekistan. There have been found a significant correlation between educational and self-educational functions at universities which led to an increase in motivation in learning languages of international communication. It is generally agreed today that the need for the use of foreign languages has also increased. New tasks suggest the changes in the requirements for the level of language proficiency defining new approaches to the selection of a content and organization material.

MATERIALS AND METHODS

In accordance with the educational activity, several methods are always combined. Methods seem to mutually penetrate each other, characterizing the interaction of teachers and students from different sides. Thus, if we are talking about the application of a particular method at the moment, it means that it dominates at this stage, making a particularly large contribution to the solution of the main didactic problem. [5, p. 116]

So, in the context of lingua-coaching, I have identified the following methods: **the method of specific situations, the method of emotional stimulation in learning, the method of creating a situation of cognitive dispute, "mosaic" and the method of projects.**

It would sound better to highlight that the method of specific situations, the method of emotional stimulation in learning, the method of creating a situation of cognitive dispute were applied for freshmen, whereas "mosaic" and the method of projects was involved in teaching seniors.

It is important to look at these methods in details.

The Method of Specific Situations:

It is based on the following statement: the way to improve your own knowledge can only be

paved by considering, studying and discussing specific situations.

There are quite a few varieties of this method. In general, the students receive a text describing a specific organizational problem. They are asked to study the situation at home and plan the best solution. Students then join in small groups, discuss the advantages and disadvantages of the proposed solutions, and try to determine how the problem can be solved.

The method of specific situations is designed to develop and further improve speaking skills, as well as develop the ability to express their opinion specifically [6, p. 65].

The Method of Emotional Stimulation in Learning

One of the techniques included in the method of emotional stimulation in learning can be called the method of creating entertaining situations in the classroom, such as introducing interesting examples, experiments, and paradoxical facts into the educational process. To increase interest in teaching, the coach uses the analysis of excerpts from fiction devoted to the life and work of prominent scientists and public figures. Successfully used such techniques to increase the entertainment of learning like stories about the use in modern conditions of these or other predictions of science fiction, showing interesting experiments [7, p. 142].

The Method of Creating a Situation of Cognitive Dispute

It is known that truth is born in a dispute. However, the dispute also causes the increased interest in the topic. Coaches expertly adopt this method to activate the learning. First of all, they skillfully use the historical facts of the struggle of scientific points of view on a particular problem. However, the coach can create a situation to the dispute at any time by asking the most trivial question: "who thinks otherwise?" If this method causes a dispute, then students themselves are divided into supporters and opponents of this or that explanation and wait with interest for the reasoned conclusion of the coach. Therefore, the educational dispute acts as an incentive to increase the level of communicative development [8, p. 60].

So, students were offered four problematic questions where the audience should have chosen only one as the controversial one. By voting and initiative of the participants, a specific topic of the dispute was determined. Before the beginning of the dispute, students were given time (10 minutes) to make a list of the main questions on the designated problem. The situation of cognitive dispute was built in the form of organized debates. The debate consisted of a reasoned statement from one side to the other, followed by its objection.

**“Mosaic”:**

The main essence of this method is the distribution of responsibilities within the student, and the distribution is formed by the students themselves. This type of activity forces students to work independently (without coach's support), to distribute responsibilities and to bear responsibility for this distribution [9, p. 389]. Each group is assigned a task to study a specific material, consisting of four to six sections. One of the students is allocated to be responsible for studying any sections. Members of different groups who received the same section, they gather together and work in so-called "expert groups", analyzing their part of the task in detail.

The Mosaic method was presented in a slightly different form, but the main idea is to distribute the responsibilities within the group. A system was created that can involve all participants in the educational process and make them demonstrate and improve their communication skills. The task was presented in the form of role cards for each student indicating three positions on a given topic.

The Method of Projects

In order to increase the level of students' communicative development, the method of projects should be put into practice, which, in my opinion, “brings” all the above mentioned methods to a new level: educational and scientific creativity by promoting self-education of students, since they are included in the mode of independent knowledge creation, where self- and mutual control increases. In addition, the application of the method of projects best reveals the formation of indicators of cognitive, motivational and interactive components.

RESULTS

As a result of the research students were able to develop the communicative skills in accordance with their interests in the given topics; to share responsibilities in project activities; to work on the project that combined with the creation of a solid language base for the students; to evaluate the reality by designing any changes to improve their level of communicative development. Moreover, in the issue of combined methods the students were motivated by forming necessary strategies.

CONCLUSION

In conclusion, we note that coaching is one of the resource aspects of pedagogical activity and involves bringing the relationship between the teacher and the student to a new level of interpersonal interaction based on interest, cooperation and flexibility, shared responsibility for the results of the communicative development of each student.

Thereby, coaching works better when a student:

- Understands that there is a difference between who he is and who he would like to be;
- Ready to think in a new, unusual way;
- Ready to make the necessary changes and take the necessary actions;
- Agree that the result is the responsibility of the individual, not the coach.

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UZBEK-CHINESE INVESTMENT COOPERATION ON THE EXAMPLE OF THE FERGHANA VALLEY

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ABSTRACT

This article examines the issues of investment cooperation between the Republic of Uzbekistan and the people's Republic of China on the example of the Ferghana valley. The article considers the volume of trade turnover, the direction of investment cooperation, and the activities of joint ventures.

KEYWORDS: *Economic cooperation, investment agreements, commodity loans.*

УЗБЕКСКО-КИТАЙСКОЕ ИНВЕСТИЦИОННАЯ СОТРУДНИЧЕСТВО НА ПРИМЕРЕ ФЕРГАНСКОЙ ДОЛИНЫ

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Аннотация: В данной статье рассматриваются вопросы инвестиционного сотрудничества между Республикой Узбекистан и Китайской Народной Республикой на примере Ферганской долины. В статье рассмотрено объем торгового оборота, направлении инвестиционного сотрудничества, деятельность совместных предприятий.

Ключевые слова: Экономическое сотрудничества, инвестиционные договора, товарные кредиты.

В настоящее время узбекско-китайское сотрудничество развивается интенсивно и многовекторно, отвечая национальным интересам двух стран, способствуя их социально-экономическому развитию. Китай стал одним из ведущих торговых и инвестиционных партнеров Узбекистана. Объемы товарооборота между государствами превышают \$4 млрд. В Узбекистане работает более 700 компаний и предприятий с участием китайского капитала. За годы сотрудничества китайские инвесторы

вложили в экономику страны-партнера почти \$8 млрд инвестиций.

Особое внимание стороны уделяют долгосрочным и взаимовыгодным связям с ведущими промышленными компаниями Китая, в первую очередь - развитию отраслей, основанных на высоких технологиях. Совместные проекты успешно реализуются в нефтегазовой и телекоммуникационной отраслях, в области транспорта, текстильной, химической промышленности и других направлениях.



Дополнительные возможности для развития сотрудничества дает совместная деятельность в области реализации инициативы «Экономического пояса Шелкового пути». Значимым событием стал ввод в эксплуатацию построенной в Узбекистане электрифицированной железной дороги Ангрэн-Пап, ключевое звено которой - тоннель через перевал «Камчик», который соединил Ферганскую долину с центральными районами страны.

Китай и Узбекистан - проверенные временем партнеры. Оба государства придерживаются политики невмешательства в суверенитет других государств, взаимной выгоды, уважения к партнеру, что заложило основу развития двусторонних дружеских отношений.

Одно из ключевых условий для успешного развития любой экономики – наличие иностранных инвестиций в производственном секторе. Эксперты говорят, что именно инвесторы выступают своеобразной лакмусовой бумажкой делового климата в стране. Там, где он хороший – строятся новые предприятия и расширяются действующие, если же в стране есть проблемы – ни одна крупная зарубежная компания не будет рисковать своими активами.

При этом особенно показательно, если иностранцы предпочитают вкладываться не в столицу, а в регионы, создают там новые мощности. Это говорит не только о потенциальных возможностях страны, но и реальной поддержке бизнеса на всех уровнях. Именно это сегодня и происходит в Ферганской долине, которая становится своеобразным маяком для китайских инвестиций.

Ферганская долина – это удивительное место, где местные жители чтят уходящие в века обычаи предков, бережно хранят память о своем наследии. Эта территория играет одну из главных ролей в истории и культуре Центральной Азии. Более шести тысяч лет назад здесь уже было развито сельское хозяйство: росли гранатовые деревья, виноградники, имбирь, грецкий орех и хлопок. Кроме того, именно по этой долине проходил главный торговый маршрут из Китая в Европу – Великий шелковый путь.

Заложенные в древности основы мира и добрососедства между странами нашли свое бурное развитие и сегодня. Так, в Ферганской области разработана и успешно реализуется специальная «дорожная карта» по развитию сотрудничества с КНР. Сейчас здесь работают 38 совместных и 24 иностранных предприятия с участием китайского капитала, и это далеко не предел.

Одна из главных промышленных жемчужин Ферганской области – открывшееся несколько месяцев назад первое в Узбекистане производство «каменной» бумаги. Инициаторами данного проекта выступили генеральный директор местного предприятия «Сайкал» Абдурахмон Ниёзов и китайская компания Henan GX-Mach Environmental Technology. Они подписали учредительный договор на семь миллионов долларов и начали реализацию уникального проекта не только в масштабах страны, но и всей Центральной Азии.

До последнего времени бумагу из камня в промышленных масштабах производили только в Китае. Теперь в этот список можно смело включить и нашу республику. При этом названий у этого продукта множество – известняковая, минеральная, синтетическая бумага. Но главное, что она действительно производится из камня, и при этом экологически чистая. Ее состав – это смесь карбоната кальция и полиэтилена, которые также используются при изготовлении обычной древесно-целлюлозной бумаги.

Уникальность данной бумаги заключается в том, что она не размокает в воде, надписи не стираются в течение долгого времени. Она значительно прочнее, чем обычная, и достаточно тяжело рвется. На данный момент – это единственное предприятие среди стран СНГ по производству бумаги из камня.

Модная индустрия сегодня захватила весь без исключения мир, тысячи брендов конкурируют между собой на глобальном рынке за внимание покупателя, предлагая свою текстильную продукцию.

У Узбекистана здесь свои преимущества – качественное сырье, дешевые энергоресурсы и квалифицированные кадры. На этой благодатной почве была реализована еще одна успешная узбекско-китайская инициатива.

На родине самого лучшего в Центральной Азии шелка – в Маргилане – компания Narimteks занимается производством брендовой одежды. Здесь используются лучшие ткани и фурнитура от ведущих производителей. Основатели компании начинали свою деятельность в 2000 году в небольшом цеху. Постепенно дизайн и качество продукции получили заслуженное признание и предприятие расширилось [1].

Постоянное изменение трендов и развитие актуальных направлений является основной отличительной чертой модной индустрии. По этой причине руководство компании уделяет отдельное внимание профессиональной подготовке и повышению квалификации сотрудников. В частности, конструкторы, технологи и дизайнеры ежегодно обмениваются



профессиональным опытом с китайскими коллегами, изучают их наработки.

Китайские инвесторы планируют организовать производство малых грузовых автомобилей в Папском районе Наманганской области.

Об этом стало известно по итогам визита в регион специалистов Государственного комитета Узбекистана по инвестициям, которые сформировали перечень новых инвестиционных проектов, предлагаемых к реализации в области. Это 34 проекта, которые будут осуществляться в Касансае, Намангане, Папе, Туракурбане, Уйчи, Чартаке, Чусте и Янгикурбане.

В целом для реализации предложенных проектов планируется привлечь прямые иностранные инвестиции на 299,5 миллиона долларов. Из них шесть инициатив на 60,7 миллиона долларов – уже реализуются, десять на 117,3 миллиона долларов – прорабатываются и 14 стоимостью 121,5 миллиона долларов – перспективные[2].

В роли аккумулирующего центра для прямого привлечения иностранных капиталовложений для всех трех регионов: Наманганской, Ферганской, Андижанской, будет служить инвестиционный хаб в Ферганской области, о создании которого Государственный комитет Республики Узбекистан по инвестициям сообщал ранее.

В Наманганской области состоялась церемония закладки первого кирпича китайско-узбекского предприятия. Оно будет выпускать пряжу из отходов, используя в качестве сырья лоскуты, остающиеся от текстильного производства.

Уникальная технология принадлежит китайской компании HengBang Textile Central Asia, инвестиционное соглашение с которой было достигнуто в ноябре прошлого года. Компания вложит в проект 30 миллионов долларов. Предприятие, построенное на территории свободной экономической зоны "Наманган", позволит создать 1200 новых рабочих мест, а начать производство планируется уже в третьем квартале 2020 года.

Ежегодно предприятие будет выпускать 40 тысяч тонн пряжи из производственных отходов текстильных предприятий Узбекистана. Значительную часть продукции компания намерена экспортировать в Россию. Предприятие планирует довести экспорт до 60 миллионов долларов в год и стать одним из крупных экспортеров области[3].

Новый цементный завод при поддержке китайских инвесторов будет построен в Булакбашинском районе Андижанской области Узбекистана.

Как сообщает НИА «Туркистон-пресс», на эти цели планирует затратить \$140 млн. зарубежных инвестиций[4].

Новое предприятие не только заметно укрепит экономику региона, но и внесет вклад в решение вопроса с трудоустройством жителей Булакбашинского района, в котором проживает более 130 тыс. человек.

С вводом в эксплуатацию завода, здесь будут разом трудоустроены 1 тыс. 100 жителей района, в том числе выпускники профессиональных колледжей.

Масштабное предприятие раскинется на площади 107 га, его проектная мощность позволяет ежедневно выпускать до 5 тонн цемента последней модификации. Это значит, что ежедневно 100 вагонов со строительным материалом будут доставляться по адресам строящихся объектов.

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SOCIAL ADAPTATION OF FIRST YEAR STUDENTS TO STUDY AT A JOINT UNIVERSITY

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ANNOTATION

The article attempts to show the process of adaptation of first year students of the joint educational institution of Namangan State University (Uzbekistan) with partners in the joint educational program -the Russian State Pedagogical University named after Gertsen and Ural State Medical University.

KEY WORDS: *intercultural communication, an integral part of sociology, culture, adaptation to University life, conducted survey, optimization of educational activities.*

О СОЦИАЛЬНОЙ АДАПТАЦИИ ПЕРВОКУРСНИКОВ К ОБУЧЕНИЮ В СОВМЕСТНОМ ВУЗЕ

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Аннотация. В статье предпринята попытка показать процесс адаптации студентов первого курса совместного учебного заведения Наманганского государственного университета (Узбекистан) с партнёрами по совместным образовательным программам – Российским государственным педагогическим университетом имени А. И. Герцена и Уральским государственным медицинским университетом.

Ключевые слова : межкультурная коммуникация, составная часть социологии культуры, адаптация к вузовской жизни, проведённое анкетирование, оптимизация учебной деятельности.

Отрадно тот факт, что наш Президент подписал Указ «О мерах по государственной поддержке проведения социологических исследований».[1]

Знания, интеллект, культура, образованность, интеллигентность должны стать приоритетным в жизни человека. Основные направления современных реформ, проводимых в сфере образования, включают демократизацию, гуманизацию, фундаментализацию, информатизацию, интеграцию, многовариантность, формирование и развитие

личности. Именно поэтому современному обществу нужны конкурентоспособные специалисты-профессионалы, востребованные на рынке труда. Образование как социальное явление ориентировано на формирование личности, выполняет важнейшие функции профессионализации и социализации.

Когда в нашей стране осуществляются масштабные реформы, направленные на демократизацию всех сфер государственного и общественного строительства, внедрение инновационных технологий, создание



необходимых условий и возможностей для развития человеческого потенциала, повышение уровня благосостояния населения. В таких условиях особое значение приобретает вопрос формирования качественно новой и современной исследовательской практики проведения социологических опросов относительно качественного изменения ситуации в определенной сфере и дальнейших задач по ее развитию на основе использования передового зарубежного и отечественного теоретико-методологического инструментария.

Проблема формирования самостоятельной, всесторонне развитой личности специалиста, обладающей способностью непрерывного совершенствования в динамично изменяющемся социальном пространстве ставится сегодня в ряд первоочередных задач.

На современном этапе развития, перед Узбекистаном стоят стратегические задачи, среди которых дальнейшее развитие системы образования как важнейшего фактора процветания страны, устойчивого роста экономики, обеспечения занятости населения.

На сегодняшний день в Узбекистане высшее образование готовит квалифицированных специалистов для различных сфер общественной жизни и отраслей хозяйства - научной, экономической, технической и прочих. Учебный процесс систематизирует знания и полученные навыки, ориентируя студентов на решение теоретических и практических задач в векторе выбранной специализации с творческим использованием достижений современной научной мысли и технологий.

Следует отметить, что группа международных экспертов, привлеченных при сотрудничестве ЮНЕСКО и консалтинговой компании DGP Research & Consulting провели комплексное исследование системы образования Узбекистана в январе-июне 2017 года. По результатам анализа разработаны предложения о необходимости дальнейшего обеспечения целостности теории и практики, совершенствования механизма контроля качества образования, развития эффективного сотрудничества с иностранными вузами.

Реформы в сфере высшего образования в Узбекистане реализуются в сотрудничестве со многими международными организациями, в числе которых Erasmus+ (программа Европейского союза), JICA (Японское агентство международного сотрудничества), KOICA (Корейское агентство международного сотрудничества). В результате претворяемых в жизнь совместных программ сотни преподавателей и студентов Узбекистана имеют возможность ознакомиться с передовым

международным опытом в системе образования, приобрести новые знания и навыки, повысить свою квалификацию в ведущих вузах мира.

В свое время обозначились тенденции: уход научно-педагогических работников в коммерческие структуры; старение преподавательских кадров вузов. Возникли серьезные проблемы с пополнением одаренной молодежью аспирантур вузов и академических институтов. В наши дни всё возвращается в круги своя. Разумеется, квалифицированные научно-педагогические кадры - не единственное условие, которое определяет качество подготовки специалистов. На этот показатель влияют многие организационные вопросы, которые также являются предметом интереса социологов.

Дело еще и в том, что, в системе образования молодой человек находится до четверти века под контролем педагогов, воспитателей в учебное и во вне учебное время и, когда в 18-20 лет молодой человек изучает математику, биологию, информатику, он еще не знает, что в 40-45 лет ему больше потребуются психология, право, социология. Ведь именно в этом возрасте хороший специалист уже руководитель, отец семейства, общественный или политический деятель, а также выполняет и другие социальные роли, где в первую очередь требуются культура, психология, наука управления. В этом случае уровень образования уже предполагает определенный социальный статус, возможности профессионального и социального продвижения. Следовательно, система образования - своего рода фильтр для молодых людей, определяющих, что они будут делать, когда станут взрослыми, учитывая то, что современный человек, в принципе, должен учиться всю свою жизнь. Новым импульсом кардинального совершенствования сферы, коренного пересмотра содержания подготовки кадров на уровне международных стандартов стало Постановление Президента Республики Узбекистан «О мерах по дальнейшему развитию системы высшего образования» от 20 апреля 2017 года. Вместе с тем утверждена Программа комплексного развития системы высшего образования на период 2017-2021 годы, включающая меры по укреплению и модернизации материально-технической базы вузов, оснащению их современными учебно-научными лабораториями и средствами современных информационно-коммуникационных технологий. [2]

Сегодня, когда расширяются возможности для получения высшего образования в нашей стране, особое место занимают проблемы межкультурной коммуникации.

Проблемами межкультурной



коммуникации занимаются этнологи, культурологи, антропологи, психологи, социологи и филологи. Рассмотрение проблем межкультурной коммуникации в системе социологических исследований позволяет наиболее глубоко и всесторонне определить тенденции взаимодействия различных социальных групп, так как коммуникативные аспекты человеческой деятельности представляют собой различные аспекты социальной коммуникации, обеспечивающей существование и развитие человеческих отношений в процессе передачи информации. Мы в данной статье попытаемся рассмотреть межкультурную коммуникацию как составной части социологии культуры. Нам видится, что межкультурная коммуникация в процессе адаптации к обучению в совместном вузе представляет собой важный и необходимый аспект исследования проблем студентов. Ведь этот тип обучения является новшеством.

Адаптация к вузовской жизни - это знакомство и привыкание к новому учебному заведению: к новому коллективу своей учебной группы, к новому педагогическому составу и руководителям группы, к новым требованиям в этом учебном заведении, к новому режиму учебного процесса, к новым условиям проживания. Хотя, должны заметить, что студенты только начинают своё обучение пока в своём регионе. Это мы можем проследить на примере проведённого анкетирования в совместном российско - узбекском учебном заведении. Наманганский государственный университет (Узбекистан) совместно с партнёрами по совместным образовательным программам – Российским государственным педагогическим университетом имени А. И. Герцена и Уральским государственным медицинским университетом в текущем учебном году принял в свои ряды 192 студентов первокурсников.

Среди студентов - первокурсников было проведено анкетирование с целью выявления проблемной области, связанной с адаптацией первокурсников.

В анкетировании приняло участие 50 человек. Вопросы были поделены на 4 части и дали следующие результаты:

1 ЧАСТЬ – отношение к новому образу жизни:

Изменился ли ваш образ жизни с началом учебы в ВУЗе?

На этот вопрос респонденты единогласно ответили ДА

Удовлетворяет ли Вас студенческая жизнь?

80 % - ответили ДА; 15% - ответили НЕ ОЧЕНЬ; 5 % - ТАК СЕБЕ

Комфортно ли Вы чувствуете себя в новой обстановке?

85% -да; 10 % -нет; 5 % - непривычно;

Вы хорошо осведомлены по специальности, на которой Вы учитесь?

100 %-да ;

Вы всегда с радостью идёте в вуз или Вам часто хочется остаться дома?

-иду с радостью — 65% , бывает по-разному — 25%, чаще хочется остаться дома- 10 %;

ВЫ не жалеете ,что поступили в этот вуз?

94 % -не жалею

6 % -жалею

Если подвести итог по 1 части, то можно отметить, что около большинство респондентов имеют адаптивные способности, кроме того у 6% наблюдается неопределённость мотивации выбора профессии, недостаточная подготовка к ней.

2 ЧАСТЬ – наличие или отсутствие трудностей :

Что Вам показалось наиболее сложным в течение этого периода?

Обучение — 70%; вхождение в коллектив — 15 % ; условия — 5% ; ничего — 10 %;

Как Вы думаете, почему это для Вас оказалось трудным?

Новые преподаватели, методика обучения- 70 %; условия проживания — 5%; особенности характера (скромность) — 10 % ; язык — 10 %; ничего — 5%.

Какая помощь и с чьей стороны Вам нужна, чтобы справиться с трудностями?

родных людей — 70% ; куратора — 5 %; самостоятельно — 25%;

На основе результатов анкетирования по 2 части определены следующие трудности в адаптации студентов первого курса:

Во-первых, адаптироваться нужно к учебному процессу, который во многом отличается от школьного. Между преподавателем и студентом возникает барьер из-за различия в методах обучения в школах и вузе. Новая обстановка во многом обесценивает приобретенные в школе способы усвоения материала.

Во-вторых, адаптироваться нужно к новому коллективу. Определить "свое место под солнцем, завоевать авторитет и уважение однокурсников.

В-третьих, к новым условиям жизни: самостоятельной организации учебы, быта, свободного времени.

3. ЧАСТЬ. Взаимоотношения с группой: У Вас в группе есть друзья?

Да — 75 %, нет — 15%, ещё не сдружился



— 10%;

Хорошие ли у Вас отношения с группой?

да — 80%, нет — 15%, не ответили — 5%;

Анализ ответов 3 ЧАСТИ позволяет сделать вывод о том, что отношения в группах начинают складываться, но 8-10% респондентов испытывают затруднения в построении контактов с окружающими из-за низкого уровня коммуникативных способностей («стесняюсь начать разговор первым, могу раскрепоститься только в хорошо знакомой компании» и т.д.)

4 ЧАСТЬ. Какие черты характера, по-вашему, нужны студенту для успешного обучения в совместном вузе?

Сила воли- 50 %;Целеустремленность-30 %; Терпение-15%; Не знаю- 5%;

Как представляете учебу в совместном вузе?

Прекрасная возможность получить глубокие знания -78 %;Отучусь 2 года потом посмотрим -10%; После 2 курса попытаюсь перевестись — 5%;Возможность погулять-2%;

На каком уровне владеете русским языком?

Свободно- 70 %; Разговариваю,но письменная речь хромает-15 %; Понимаю,но говорить стесняюсь — 10 %; Плохо владею — 5%;

Анализ полученных данных 4 ЧАСТИ позволяет воссоздать целостную картину состояния дел в группах нового набора, определить направления в работе, основными из которых являются:

1. Проведение тренинговых занятий с целью формирования сплоченности и развитие чувства доверия в студенческих группах;

2. Обучение студентов приемам снятия психологического напряжения, методам саморегуляции;

3. Проведение индивидуальных консультаций.

Таким образом, изучение особенностей протекания процесса адаптации первокурсников к вузовскому обучению должно помочь сформировать подходы

к оказанию психологической помощи студентам в оптимизации учебной деятельности.

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OCCURRENCE OF AN ACHIEVEMENT IN THE POLICY OF CONFORMITY OF INTERESTS

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ABSTRACT

This article explores the question of proportionality of interests in Greek-Roman sources.

KEYWORDS: *democracy, people, lawyer, policy, idea, state.*

ВОЗНИКНОВЕНИЕ ДОСТИЖЕНИЯ В ПОЛИТИКЕ СООТВЕТСТВИЯ ИНТЕРЕСОВ

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Аннотация: В этой статье исследован вопрос пропорциональности интересов в греко-римских источниках.

Ключевых слов: демократия, народ, юрист, полис, идея, государство.

Известно из глубокого прошлого, что вопрос равновесия личных и социальных интересов формирует суть демократии, этот вопрос впервые был поднят древнегреческими учеными. Полис, то есть государство “всеобщее дело” говорил Демокрит, по его мнению [1] государство это отражение социальных интересов, объединение индивидуальных интересов. Здесь впервые государство рассматривается как общее (говоря сегодняшним языком – общенациональное), то есть представляющее интересы общества. Социальные интересы начинают превращаться из неопределенности в сущность обросшую формой и линией. Хотя, сначала в этих взглядах интересы государства и общества не различались первый от второго, основное внимание было направлено к вопросу соответствия их интересам

личности, этот подход создал основу для формирования демократических идей.

Идея Протагора (приб. 481-411 года до н.э.) “человек – критерий всех вещей” [2] превратилась в основу действия и исследований направления. Со стороны греческих авторов были разработаны естественные права, всеобщее равноправие от природы (Антифонт) [3], критерии обеспечения справедливости и идеального государства (Платон [4], Аристотель [5] и другие). Аристотель исследовал идеи организации взаимоотношений между человеком, обществом и государством, разделил на право сформированное на основе естества и мысли.

Таким же образом, может образоваться понимание неразличимости интересов государства и общества в научном наследии древнегреческих ученых. Но анализ



вышеуказанных научных наследий показывает не совсем правильность этих заключений. Так как постепенное продвижение идей обоснования греческими учеными союза «позитивных» – людей как права установленные со стороны государства и права исходящие из «природы» – человека, проясняет различия интересов общества и государства и пропорциональности их потребности. По словам Эпикура (341-270 г. до н.э.) справедливое претворение естественных свобод человека невозможно без их «соглашения о выгоде» [6].

Идеи греческих авторов о гармонизации интересов личности, общества и государства были развиты римскими учеными. Философ Марк Туллий Цицерон (106-43 г. до н.э.) разработал философское учение о правах и законах государства и человека основанное на естественных правах человека. По его мнению государство в сущности как «всеобщий правопорядок» является естественным правом человека. Оно является «богатством народа» объединенным на основе всеобщих интересов и исходит из потребности люди в совместной жизни [7]. Цицерон продвигая идею верховенства закона, указывал на то, что соответствие или противоречие законов к естественным правам человека являются основным критерием справедливости.

Рим юристами были обобщены идеи о естественных и позитивных правах и продвинута фундаментальная идея о непротиворечивости всего природе общества и человека, в противном случае их ожидал конец. Лозунгом этому служила идея о справедливости, примером же судьбы взглядов и политических режимов противоречащих природе человека и общества. Но идеи утопических социалистов (Т. Мора (1478-1535), Т. Кампанелла (1568-1619), А. де Сен-Симона (1760-1825) и других), то есть противоречие идеи об идеальном обществе природе общества и человека, особенно, стремление претворения его силой приводит к растоптанию интересов миллионов людей, к глубокому кризису общественного прогресса. По этой причине пропорциональность различных учений интересам личности и общества вынуждает к оценке и исследованию.

Выступавшие против утопических идей либералы внесли большой вклад в восстановлении идеи справедливости, гармоничности интересов человека и общества в строительстве государства и общества. В исследованиях Г. Гроций [8], Б. Спиноза [9], Д. Локк [10], Т. Гоббс, Ш. Монтескье [11], Ж. Ж. Руссо [12], И. Кант [13], Ф. Гегель [14], Г. Еллинек и других освещены понятия интересы человека, общества и государства и в

социальном развитии и пути к достижению их пропорциональности. К примеру, Гольбах под понятием интерес, понимал силу заставляющую человека к движению, как объект связывающий представление каждого о собственном счастье [15]. В свою очередь, Д. Дидро указывал, что говоря: “индивид, слой, интерес нации – понимается одинаково полезное как для государства, личности, мне и др. как “мой интерес”, “государственный интерес”, “его интерес” “их интерес”.

К. Гельвеций обобщая взгляды об интересах писал, “если природа подчиняется законам движения, духовный мир подчиняется законам интереса”. По его мнению, “интерес есть начало всем нашим идеям и действиям”. Значит французские просветители XVIII века смотрели на интерес как на направляющую силу действий человека.

Г. Гегель также в своем учении уделял отдельное внимание на интересы и указывал на них исходя из потребностей, интересов и выгоды человека [16]. По его мнению, суть интереса составляют желания направленные на удовлетворение деятельности субъекта. Поэтому ничто не осуществляется вне интереса [17]. Он уделял серьезное внимание на пропорциональность общих и личных интересов. По его мнению, “если частные интересы граждан объединяются с общими целями государства, они получают удовлетворение друг от друга, государство станет сильным и процветающей – этот принцип сам по себе важен в высокой степени” [18].

Из всего выше указанного следует, что вопросы достижения пропорциональности интересов личности, общества и государства с давних времен привлекало к себе внимание ученых.

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THE IMPORTANCE OF PROFESSIONAL MOTIVATION AS A PSYCHOLOGICAL FACTOR IN THE DEVELOPMENT OF PROFESSIONAL COMPETENCE OF STUDENTS

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ABSTRACT

This article reveals questions of a theoretical and research nature based on the importance of professional motivation as a psychological factor in the development of students' professional competence, also, special attention is paid to the definition of components of professional orientation and competence that ensure productivity in the professional activity of students.

KEYWORDS: *significance, motivation, motive, competence, professionalism, component, factor.*

ЗНАЧИМОСТЬ ПРОФЕССИОНАЛЬНОЙ МОТИВАЦИИ КАК ПСИХОЛОГИЧЕСКИЙ ФАКТОР РАЗВИТИЯ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНЦИИ СТУДЕНТОВ

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Аннотация: В данной статье раскрываются вопросы теоретико-исследовательского характера на основе значимости профессиональной мотивации как психологического фактора развития профессиональной компетенции студентов, также уделяется особое внимание к определению компонентов профессиональной направленности и компетентности обеспечивающие продуктивность в профессиональной деятельности студентов.

Ключевые слова: значимость, мотивация, мотив, компетенция, компетентность, профессионализм, компонент, фактор.

В условиях социально-экономических изменений, происходящих в современном обществе, особую значимость приобретают проблемы значимости профессиональной мотивации. Немаловажную роль в становлении специалиста играет профессиональное образование.

Одной из актуальнейших сегодня является формирование значимости профессиональной мотивации как психологического фактора развития профессиональной компетенции студентов, что приоритетно вписывается в современную стратегию развития субъектных возможностей и способностей человека.



Прежде обратимся к определению профессиональной мотивации в психологии: Под профессиональной мотивацией понимается совокупность факторов и процессов, которые, отражаясь в сознании, побуждают и направляют личность к изучению будущей профессиональной деятельности. Профессиональная мотивация выступает как внутренний движущий фактор развития профессионализма и личности, так как только на основе ее высокого уровня формирования, возможно эффективное развитие профессиональной образованности и культуры личности.¹

Успешное выполнение профессиональной деятельности предполагает прежде всего высокую степень психологической и профессиональной готовности студента. Однако практика сегодняшнего дня показывает, что связь между вузом и сферой деятельности выпускников не всегда надежна. Молодому специалисту после окончания высшего учебного заведения требуется, как правило, еще не мало времени, чтобы адаптироваться к условиям профессиональной деятельности. Одной из причин такой ситуации является отсутствие должного внимания к развитию профессиональной компетенции студентов.

Сегодня особое внимание уделяется проблеме профессиональной и учебной мотивации как психологического фактора развития профессиональной компетенции студентов профессиональных образовательных организаций. Так как современное общество с его динамичным развитием экономикой и рынком труда предъявляет высокие требования к будущему специалисту: заинтересованность и увлеченность своей специальностью, высокий профессиональный уровень, творческие способности, получающие свое проявление в чувстве нового, в возможности видеть недостатки, находить пути их устранения, в желании постоянно повышать уровень своего образования и квалификации, умение мыслить, находить альтернативные оптимальные решения, решать нестандартные задачи, выработка определенных психологических качеств – целеустремленности, добросовестности, трудолюбия, преданности коллективу, психологической устойчивости. Все это может способствовать высокому уровню

профессиональной и учебной мотивации обучающихся.

Мотивация является главной движущей силой в деятельности и поведении человека, а также в процессе формирования будущего профессионала. Даже если выбор будущей профессии юношей был сделан недостаточно осознанно и не вполне самостоятельно, то, целенаправленно формируя устойчивую систему мотивов деятельности, можно помочь будущему специалисту в профессиональной адаптации и профессиональном становлении.² Изучение мотивов выбора будущей профессии и динамики мотивов учения даёт возможность корректировать мотивы обучения и влиять на профессиональное становление. Как отмечал П. А. Шавир: «Мотив, органический связанный с содержанием или процессом деятельности, обеспечивает то неустойчивое внимание к ней, ту увлеченность, которая приводит к развитию соответствующих способностей. Этот мотив побуждает человека оценивать себя, свои знания, свое умение и нравственные качества в свете требований данной деятельности. Тем самым этот мотив является важнейшей психологической предпосылкой самовоспитания».³ Эффективность учебного процесса прямо связана с тем, насколько высока мотивация овладения будущей профессией.

На каждом этапе становления личности профессионала присутствуют компоненты, которые являются внутренним побуждением человека к деятельности, или иначе, его мотивация.

В нашем понимании значимость профессиональной мотивации как психологический фактор развития профессиональной компетенции и готовности к предстоящей самостоятельной деятельности студентов и выпускников состоит из следующих компонентов: профессиональная направленность и компетентность в области изучаемой специальности. Высокие уровни развития всех перечисленных компонентов может обеспечить в дальнейшем продуктивность в профессиональной деятельности студентов.

² Асадов Й.М. и др. Учебно-методическое пособие «Образовательные технологии направленные к формированию компетенции у учащихся в общеобразовательной системе». Т.: -2016 г. – С.5;

³ Шавир П. А. Психология профессионального самоопределения в ранней юности. - Изд. Когито-центр – 2002г. – С.89;

¹ Психология. Словарь/Под общ. ред. Л.А.Карпенко, М.Г.Ярошевского – 2-е изд., испр. и доп.-М.: Политиздат, 1990.- С.297;



Рассмотрим в отдельности каждый компонент, определяющий уровень профессиональной компетентности студента.

Формирование образа будущей профессиональной деятельности личности происходит в процессе профессионального обучения в вузе под влиянием развития профессиональной направленности. Уровень профессиональной направленности (высокий, средний, низкий) отражает содержание образа будущей профессиональной деятельности личности студента.

При изучении учебно-профессиональной мотивации в психологической науке центральным вопросом зачастую становится вопрос о структуре мотивации. Понятие «структура мотивации» применяется, когда речь идет о доминировании, иерархии мотивов, выделении их основных групп и подгрупп. Иерархическая мотивационная структура определяет направленность личности студента, которая приобретает различный характер в зависимости от того, какие именно мотивы по своему содержанию и строению становятся в тот или иной момент доминирующими.⁴

Одна из форм развития профессиональной направленности состоит в обогащении ее мотивов: отдельного мотива до все более распространенной системы мотивов. Тем самым этот мотив является важнейшей психологической предпосылкой «самовоспитания». Следует отметить что, психологически оправданным и педагогически целесообразным различать мотивы, органически связанные с содержанием выполнимой деятельности (прямые мотивы и побочные мотивы). В первом случае человек трудится ради того дела, которым занят. Само возникновение прямых мотивов есть свидетельство того, что данная деятельность приобретает непосредственную личную значимость для человека. К числу прямых мотивов трудовой деятельности относят сознание своего долга, переживание общественной значимости своего труда. Если человек побуждается к деятельности побочными мотивами, внутренне не связанными с ее содержанием или результатом, то нельзя сказать, что он трудится ради того дела, которым занят. Он приспосабливается к внешним требованиям, но не усваивает их. Он побуждается к труду на основе потребностей и чувств, которые не

обязаны своим развитием данной деятельности (например, материальная заинтересованность, честолюбие и т.п.).

Тем не менее высокий уровень профессиональной направленности - это та качественная особенность структуры мотивов личности, которая выражает единство интересов и личности в системе профессионального самоопределения. Повышение уровня профессиональной направленности образует основное содержание ее развития. «Выбор профессии можно считать оправданным лишь в том случае, если есть надежда, что активность личности приведет к такому взаимоотношению между личностью и трудом, при котором будет успешно происходить дальнейшее развитие творческих и нравственных сил человека. Одним из основных условий прогнозирования такого развития личности является высокий уровень профессиональной направленности»⁵.

Переходя к анализу следующего компонента можно констатировать о том, что главным фактором развития компетентности студента является стимулирование и мотивация положительного отношения к обучению. Осваивая учебный материал, обучающийся начинает понимать важность компетентности как ключевого аспекта будущего профессионализма.

Следует отметить, что само понятие компетентности будущего специалиста подразумевает наличие мотивационного компонента (мотивация, качественные, мотивационно-волевые и другие качества). У обучающегося вырабатывается установка, заключающаяся в формировании у него положительного отношения к деятельности по выполнению учебных задач. Наличие подобного отношения будет способствовать формированию мотивации у студентов.

Рост компетентности неразрывно связан с системой ценностей. Выявление ценностных ориентации индивида, оказание ему помощи с целью более ясного их осознания, разрешения ценностных конфликтов и оценки альтернатив представляет собой необходимый элемент становления специалиста. Эффективное построение образовательной деятельности предусматривает развитие оценочной

⁴ Нурмухаметова Л.Б., Салаватова Г.Р., Бильданова В.Р. Профессиональная направленность студентов // Международный журнал экспериментального образования. – 2014. – № 6-1. – С. 94-95;

⁵ М. И. Дьяченко, Л. А. Кандыбович. Формирование профессиональной направленности личности студен Изд-во БГУ, Минск, 1998 г. – С.36;



деятельности самого обучающегося, его саморазвитие.

Психологические особенности формирования компетенций многообразны, так как сама деятельность студента имеет многоступенчатый характер обучения. Здесь необходимо привести мнение, выдвинутое Дж. Равеном, который отмечал, что «...развитие компетентности должно основываться на системе личных ценностей». ⁶ Это утверждение противоречит мнению, согласно которому само содействие когнитивной деятельности обучающегося является первоочередной задачей и самоценностью.

Таким образом, для развития профессиональной направленности как психологического фактора развития профессиональной компетенции необходима такая организация деятельности студентов, которая актуализировала бы противоречие между требованиями предпочитаемой деятельности и ее личностным смыслом для человека.

Среди профессионально важных качеств педагогов в психологической литературе выделяются следующие: эмпатия, эрудиция, педагогическое мышление, интуиция, умение импровизировать, наблюдательность, оптимизм, находчивость, педагогическое предвидение, рефлексия.

Для исследователей профессионально важным считают следующие качества: любознательность, сравнительно высокая степень научной одаренности, творческое мышление, богатая фантазия, наблюдательность, энтузиазм по отношению к своей работе и ее задачам, прилежание, дисциплинированность, способность к критике и самокритике, беспристрастие, умение ладить с людьми.

Проведенный теоретический анализ психолого - педагогической литературы показал, период юности является наиболее важным для формирования значимости профессиональной мотивации как психологического фактора развития профессиональной компетенции студентов.

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STYLISTIC PECULIARITIES OF MAKSUD KORIEV'S STORIES

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ANNOTATION

The article talks about artistic features, the style of the writer, the issue of tradition and value, nationality, family upbringing inherent in the Uzbek people. Folk traditions, customs in the family are proved on the basis of the story of Maksud Koriev "Yamoqchining merosi", "Qaldirg'ochlar bahorda keladi".

KEY WORDS: *artistry, style, nationality, tradition, national value, spirituality, lifestyle, character.*

INTRODUCTION

In literature, the image of nature and man is always described in a parallel way. Many examples can be cited for this. In world and Uzbek literature, each motif of nature is described in a writer's style, in a way peculiar to the place of residence.

When applying the figurative expression of Hegel on the development of plants to the problem of the periodization of the history of literature, professor Nasimkhon Rahmonov comes to the following conclusion: "...the change in socio-historical life affects the occurrence of changes in literature, in one period the literary-aesthetic phenomenon changes sharply from the side of form and content to the subsequent period, but the old one becomes the ground for a new one"[1]. Similarly, the transformation of socio-historical life will be the basis for the emergence of a new human concept. However, it is also necessary to remember that this old concept is the basis for a new one[2]. In reflecting human views, the image of nature is an important principle. The creators, who discovered symbolism through the image of nature, are known from the past. In classical literature, the image of the swallow in the work of the Rabguziy "Qissai Rabguziy" keeps people from being prey to snakes.

The story is considered a small epic genre in Uzbek literature, which many writers refer to, it is distinguished by its compactness, ease of expression of the event, limited plot and personage. In fact, "the genre will depend on the character of the events described by their nature, their internal construction and architecture. Since the genre of the work is a character, the artist also determines his structure, theme, Heroes, conflict and, finally, his reader. Therefore, when thinking about the genre, it is implied to what extent the life problem that excites the artist is put into a full-fledged artistic form" [3].

The story of Maksud Koriev "Qaldirg'ochlar bahorda qaytadi" is described by his own speech. The story "This event took place in those terrible forgetfulness that stirred the earth in Tashkent. We lived in the famous Qashqar neighborhood, in the center of the earth shaking. Due to the natural disaster that has occurred, all the oil in our house has broken down, although the rooms in such a way are standing but-intact, but it has become completely unsuitable for living. Well, to our happiness, those began warm-hot days, we were able to sew a tent and go out into the yard." As can be seen from the passage, the story is based on the author himself, and the event is based on one small event, which he married in 1966 year after the events of the earthquake in Tashkent. The story describes the harmony of nature with man through the image of a maiden and a swallow. Seeing the laboriousness and competence of the swallow, how much he is vivacious for his children, you will come to them with enthusiasm.

The hero of the story Nodira was kind to the swallows who built a nest in their house, looking forward to their return in the bosom every year. This time, too, we are worried that we will return to our homes, which have become unusable due to the earthquake, while waiting for the friendly birds with longing. In one of the spring mornings, swallows appear, and the joy of Nodira captures the world. It was from the birds he was expecting yearning. But the swallows are so beautiful birds that they return, although they feel that it is dangerous to enter their old nests in the attic of the rooms. From this, the girl feels sad. Birds, which he himself so much leaned on, are so sore that they leave us when we are worried about our heads. But the birds express their loyalty and come back again. Only now, without going into the house, they begin to build new slots on the open



patio ceiling. Since the writer is an oval of such an event, he wants to show by the example of these little birds that a friend should keep his loyalty even when any troubles occur.

"As a person, the main object of artistic literature, lives and forms in a particular environment, the role of that environment in its nature is undoubtedly felt"[4].

The return of the swallows, along with an increase in the confidence and affection of Nodira to them, would lead to the fact that in conditions of such a natural disaster does not disappoint her hope, pleasure. Nodira also means the good of the apartment in which she lives, the kindness of family members, the well-being of the family and the soul are pure people. Because from the narratives it is known that the swallow cannot build a nest in any apartment or return to his previous built house again. He returns only when he feels that the owners of the apartment is a good man, kind. The writer wants to understand that the family, depressed by the image of the behavior of swallows, is experiencing temporary difficulties, hademai again begins joyful moments and begins to say that the apartment is flourishing.

In this work, the author's thinking style is unique, and the structure of the work reflects the method of expression specific to the oral creativity of the people. At the same time, through the image of Nodira, he wants to emphasize his love for nature, its unusual manifestations, the animal world, and through this idea people will also be able to end up with each other. In fact, Nodira was a girl with a lot of consequences. The idea that when he hears the news of moving to new homes, he initially worried will be the fate of the swallows. The old houses of his father are comforted by the words of autumn, that is, the swallows do not break until the child opens and blows them away to the warm lands. But the question of whether he will be worried about him next years, whether his winged friends will come to new homes, was tortuous. They also go to the feedback on where to find our new homes. When they come to move to new homes and take away some necessary trifle things from the old house, they see that the slots on the patio ceiling are left without a device until the end and tears into Nodira's eyes. He was also offended by himself for throwing away the swallows. Because swallows build nests in uninhabited houses, and in ruins are not an owl that causes fear to people.

At certain stages of development of people's life, there is a problem of creating human and nature bonds before society. It is shaped by a universal and national history of thought, socio-political foundations, economic relations and psychological factors. The author points out that the swallows from the house where people moved, too, will leave, it is necessary to have a one-time consequence. Although the birds saw that the condition of the house of the Nodiras was bad, they had returned to this house.

Because they saw kindness from people in this house. But people could not answer for that loyalty. That was the feeling that made Nodira's eyes wet.

It is the idea of nurturing, preserving in a person such feelings as kindness, end, friendship, loyalty. Through the writer swallows, through the behavior of Nodira, he encourages his readers to think more about very important spiritual issues.

The story of writers "Yamoqchining merosi" was also original, using a narrative style. The story is told from the language of the child. National traditions and values, which are characteristic of the Uzbek family, are described. The writer does not go on the path of describing a person in his stories as a person who promotes ignorance, spiritual poverty, or whatever, but is interpreted as the creator of human thoughts, personal views. The son of the patcher, his father, and the father pity the people, and the man patch the shoes of the people. Although his original profession was a patcher, people called him a Pulat dutor player.

In fact, changes that occur in the inner world of people can be perceived as a process in which the formation of new images occurs constantly in the development of society. Especially in the people of society who have passed from one system to another, like our generation, this situation leaves a clear mark. People of creativity know better than anyone else that switching from one system to another system – market economy relations is not an easy process, it feels thoughtful [2]. "My father was a man of a wonderful, delicate nature, even if they were an ordinary patcher with a modern penchant. It would have been as if our household would have gone into the pleasures as they entered.... My father had handsome for themselves, some kind of lightness and beauty on their faces " [5]. Apparently, the owner of a gentle nature, although he himself is a patcher, when he plays dutor, thin strings of his soul are visible. Pulat dutor player loved art and literature, but used this art not to earn money, but to please lovers. That's why the people called him Pulat dutor player, without saying that he was a Pulat patcher.

Professor N.Vladimirova's "The processes taking place in today's Uzbek storytelling are complex and colorful. On the one hand, if a strong connection with national traditions allows it to move freely within the boundaries of a small genre, on the other hand, the study of Western literature of Russian and fraternal peoples gives a great opportunity to make the forms in the genre range more diverse"[6]. Professor N.Vladimirova's this opinion we can apply these two stories of Maksud Koriev. In the stories of writer, the national, tradition is confused with modernity. In the story "Yamoqchining merosi", the patcher described the hardship of the Uzbek people of that time through the image of a father who suffered from patching as a hole in the shoulder, suffering from family anxiety on his shoulders. The



writer shows the image of the people living in a very poor state through the image of the story. In front of the patcher, the conditions are severe, the shoes have become holes, they are patched and stitched, they bring the shoes that have not left the whole place. The patcher, who has mercy on his people, will sew for a little money, and will also sew for debt.

Although steel is the original profession patching in dutor player, he is a father in the family. His role in the family is high. Even when they return from work, their children are welcomed with extreme discipline. The role of a woman in the family cannot be overestimated. The mother teaches her children that she is returning from work to her father that everything should be competent, that they do not ask the father excessive questions, that he does not like a tired person, that the father does not talk about the absence in fasting. And the children follow every son of the mother.

The writer described the life of the Uzbek people in a difficult situation in the past through the image of the patcher. The Uzbek people loved literature and art from time immemorial. Therefore, traditions, national traditions, values have been preserved to this day. The events in the game are told from the language of the child. The child is this-the writer himself. Therefore, the same events appear in your eyes when reading the work.

CONCLUSION

In conclusion, it can be noted that the portrayal of Maksud Koriev in his stories of people he saw, knew, as a hero ensures the vitality of the interpretation. If, through artistic details, the image of the hero is reflected, the image of the psyche, by intensification, ensures the authenticity of the images.

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PROMOTION OF SOCIAL ACTIVITY IN YOUTH – AS AN IMPORTANT CONDITION FOR THE DEVELOPMENT OF CIVIL SOCIETY

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ANNOTATION

In this article, the concepts of civil society and social activity are covered in a philosophical light on the basis of specific information. Also, the aspects of self – awareness of civil society in people, their formation in harmony with the increase in the ability to feel a sense of responsibility in the object, social activity in civil society, conscious, impartial analysis of social relations and the expression of the degree of their desire to change one or these elements have been scientifically studied.

KEYWORDS: society, state, civil society, harmonious generation, youth policy, citizen, activity, social activity, tolerance, adaptation.

INTRODUCTION

In the process of reforming the development of a new society in Uzbekistan, it is important to study the theoretical and practical aspects and experiences of the creation of the foundations of civil society in different countries of the world at different levels and periods. Civil society is a certain social system that guarantees every citizen of this country full freedom to build his economic and political life at his own discretion. Civil society is formed in harmony with the increase in self – awareness of people, their ability to feel a sense of responsibility in the object.

In the study of the content of this article, it is necessary to know the content of the totals of society, civil society, social activity. Between the concept of society and the concept of "civil society", there are not only inseparable, but also very serious differences. The society, which is considered a set of relations between people, becomes a civil society at a stage when its development is in improve, under certain conditions. The category of civil society represents a qualitatively new situation from the point of view of the structure of society and self-government, manifests the alternative of the interests of the state and the individual. In this a person, his rights and freedoms are manifested as a supreme value.

Society is a collection of associations in which all methods of mutual action of people and their interdependence on each other are expressed[1].

The concept of civil society has been manifested in a variety of manifestations over a long period of time, from antiquity to Western enlightenment.

Civil society is a social space in which citizens are provided with active participation in the management of the state and society through relevant civil institutions[2]. The concept of "civil society" is a product of the mentality that mankind has formed for several centuries, and it has been manifested as a criterion of how high the level of provision of human rights and freedoms is. In general, the term "civil society" has a common essence in various foreign literature, but at the same time it is a concept that harmonizes the national traditions of each country.

Social activity in civil society expresses the level of conscious, unselfish analysis of social relations and their desire to change those elements.

Social activity is the participation of social subjects (society, strata, groups and individuals) in socio-political processes, the influence of Labor and cultural and educational activity, the pursuit of full implementation of the rights and duties set forth in the law. Social activity is the main condition for a



person to find his place in society and consciously manage his behavior[3].

There are three types of social activity: in the sphere of socio-political processes and culture, labor and living. Labor activity is manifested in the field of labor relations and arises in connection with the professional-social task of the subject. It is recognized as the main, defining type of social activity. Its forms include: austerity, effort for superintendency, participation in scientific and technical creativity, rationalization, ingenuity and other actions. Socio-political processes and activity in the sphere of culture and life are manifested in the socio-political, cultural and educational processes of the individual, in his personal life.

In the event that a person has faced any serious problems of social importance and understands that it is necessary to adopt new laws or to improve the existing laws in order to solve them, the pursuit of social activity becomes more difficult. Social activity of members of society can manifest itself in various forms. By the nature of its manifestation, it is divided into constructive and destructive types. Constructive social activity is the social system in which members of society have these contradictions in conflict with certain contradictions. Seeks to eliminate using legitimate legal programs. It establishes public associations to express its interests, solve problems on the basis of existing laws.

The content of social activity, which can be defined as destruktiv, is different. Such activity is directed against the existing social system, manifested in the desire to destroy it. It arises in a situation where it is believed that with the existing legal programs it is impossible to achieve its goal, solve problems of social significance. In such cases, social activity will not have clear legal limits. And this can lead to a sharpening of the social situation. This type of social activity is observed in periods of instability in social relations.

In the process of increasing social activity, one should pay attention to the formation of the following social qualities::

1. Science. An educated person is considered to have a lot of knowledge. When you say truly educated, it is said to a person who understands the literal meaning and meaning of things and phenomena, knowing the laws that make up them, passing through their own thinking, testing them in life several times, turning them into skills and abilities. The more knowledge a person has in himself, the more educated he is.

2. National pride is a social quality that serves as an incentive to any process of activity of mankind. A healthy national pride dictates respect for people of other nationalities.

3. Patriotism is a civilized view of national pride, one of the main factors that creates an

incentive for the prosperity of Homeland. Patriotism is formed in a concrete life environment, on a social basis and on the basis of existing spiritual and moral values. Both folk and Homeland must be independent in order for its full and correct formation to display high specimens.

4. Courage. If a person has all the qualities listed above, but there is no courage, then no one will benefit from these qualities. Because courage acts as a driving factor for all the positive social qualities of a person. As a result, the feeling of social activity in a person is more strengthened.

Social activity is proportional to social tolerance. Tolerance – this does not mean that the thoughts, views and actions of others are subjected in a non-effective, natural way. Perhaps it represents an active moral advantage and psychological readiness towards understanding, positive cooperation between individual people, different groups, peoples, social groups.

Tolerance serves as the basis for the prevention of destructive actions of young people in relation to other cultures as well as to other thinkers.

It is necessary to formulate in a person the ability to perceive another person from childhood, in some way, with complexities in his thoughts, nature, culture, views. by absorbing such an idea to young people through education and training, it should mean that people are mutually equal, despite their lifestyle, culture, social origin, material self-esteem, etc.

To be aware, not to remain indifferent to what is happening is the social activity of young people in the current period. This will revive the formation of such characteristics as the upbringing of young people in the spirit of kindness, justice, democracy, the formation of a sense of self – education and development in them, the need for social activity, the correct assessment of information on a wide and varied scale and the development of new areas of knowledge. One of the tasks of modern education is the development of social activity and tolerance among young people.

Some young people are faced with difficulties in the sense that they do not understand the opinion of others and do not want to understand. They can not even imagine that a person standing opposite them has his own way of thinking and acting. Often they try to transfer their opinion to others, in addition, they are illiterate in matters of tolerance. Formation of students' tolerance the use of the basic principles of cooperation between the teacher and the students in communication in the course of the lesson gives a good effect.

In order for the youth of society to be socially active and tolerant, it would be appropriate to ratify the existing international conventions on human rights in the Republic, along with the adoption of laws that ensure the implementation of



youth policy, to create and introduce into the minds of all strata of our society and individual persons even more extensive opportunities.

Conclusion.

Raising the social activity of young people and nurturing them in the spirit of tolerance should be directed against the effects that arouse a sense of love and affection towards others. It is necessary to teach young people to think independently, to think critically, to help them formulate views based on moral values. This means raising the level of pedagogical training, the content and essence of curricula, textbooks and lessons, other educational materials, including new educational technologies, and the purpose of which is to educate citizens who are open and benevolent to other cultures, conscious and responsible, who appreciate freedom, respect the dignity and individuality of a person, solve conflicts with the means of prevention or In the current environment, we witness the increasing social activity and tolerance of young people in the process of forming civil society.

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LEARNING A CONCESSIVE ATTITUDE AT THE GRAMMATICAL LEVEL

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ANNOTATION

The article describes the study of the relationship of concessive as an area, its inextricably linked with the meanings of conditions and conflict, the units taking place from the core and periphery of the field.

KEYWORDS: *concessive attitude, area, concessive category, concessive sema, concessive and conflict.*

INTRODUCTION

In world linguistics, the definition of language units as a complex system consisting of certain integrals among the directions that approach them on an anomasiological basis, the analysis of all units of the level by form and content, language and speech has become one of the important issues. Interpretation as a member of a functional-semantic field, inextricably combining tools into one semantic group under the archisemy of condition and concessive, also creates a favorable opportunity to perfectly illuminate the ontological nature of the language.

As a result of the development of society, language is also improving and the problem of enriching Uzbek linguistics with new research methods becomes relevant. Particular importance is attached to the study of high-level units of the language on the principle of "from content to form" through to the meaningful side of linguistic units. The study of concessive and conditional relations as a field of interrelationships is also among such tasks.

In the following years, different opinions arose about certain meaningful features of inaccessibility. But it is necessary to allocate a meaningful invariant, which is unique for the units of the category of invariance, the only method for the semantic expression of these units should be taken into account. Of great importance is the identification of important directions inherent in the development of such tools. According to this, it is necessary to take into account the meaning components that form the meaning of the other than the invariant within the meaning concessive category, that is, the meaning makers [1].

Concessive began to be recognized by the twentieth century as a linguistic concept. This can be

seen in French linguistics, in particular in the works of Morel. In it, the attitude of concessive is defined as a conflict, which consists in the rapprochement of two events, which in fact differ from each other. This concept implies the expression of the concessive relationship on the basis of certain language units-lexemes and constructions.

In world linguistics, the words denoting inaccessibility P.M.Grechishnikova, A.P.Makareva researchers like add to the range of sentences that follow the cause, B.V.Lavrov, P.P.Rogojnikova, A.N.Gvozdevs necessarily believe that the views of the sentences that follow, A.A.Vasileva, M.C.Guricheva, T.G.Pechenkina, N.G.Rubsov, Chin Suan Tkhan, L.C.Estrina., N.P.Perfileva researchers like emphasize the similarity of unobstructed and contradictory statements.

Unlike other scientists who covered the category of concessive, P.M.Teremova considers the attitude (situation) of concessive on the basis of three different degrees:

1. Clear-concessive situation. The concessive component retains the non-barrier basis, which clearly reflects the (real) event. In other words, concessive arises when the expected work-the movement, in itself, has a clear result. Such sentences are more than met in the follow-spoke joint sentences.

2. Approximate concessive situation. Even if the concessive component is an obstacle, it shows the non-causal basis as a hypothetical event, as well as a condition that occurs regardless of the outcome of the event.

3. Fixed concessive condition. The concessive component keeps the sema enhancing, as well as the indicator of the manifestation of a high degree of character, action or condition.



P.M.Teremova believes that by looking at the results, there is a two-way relationship – enhancing and causal relationship-and this situation generates three different situations from the above [2].

Analysis of the views on the linguistic field created in recent years in world linguistics shows that there are many different-style interpretations of phenomena that are considered as fields. In particular, in Uzbek linguistics, a lot of serious research on field theory is being carried out T.Mirzaqulov, M.Abduvaliev, Sh.Iskandarova, A.Sobirov, S.Muhamedova, N.Nishanova, M.Hakimova, D.Vaqqosova, H.Hojieva, F.Safarov, B.Qurbanova, M.Ergashova, L.Elmuradova works are from sentence. In each of these studies, the generalization of semesters to one archisema, their grouping under different integral semas and their specificity with differential semas were investigated consistently.

In Uzbek linguistics, the units representing the concessive attitude have not been studied monographically on the basis of the field. However, in traditional linguistics there are terms and concessive conjunction, concessive modifier, concessive clauses, the polysemy of joint clauses, which candidate and doctoral dissertations that provide information about. In Particular, A.Azizova, M.Askarova, A.Mamajonov, G.Roziqova research work of such scientists are noteworthy [3; 4;5;6]

M.Abduvaliev's article "the area of the concessive and the units that make up it" is considered one of the first steps to the study of the sema's "concessive" as a field. The article interprets the synonymic attitude of the combined syntactic means under the term "concessive". Also, in his article, the researcher points out that these syntactic units "differ in terms of stylistic meaning ottencas, emotional-expressiveness power and the degree of their application in different manifestations of speech"[7].

A.Nurmonov, N.Mahmudov, A.Ahmedov and S.Solikhovaeva in the book "the meaningful syntax of the Uzbek language" of there are opinions about the interdependence of the meanings of terms and concessive: "in connection with the condition, the concessive stand close to each other. This is seen in their main means of expression, that is, in the expression of both relationships the suffix -sa necessarily declination is involved. Only in the expression of a concessive relationship – both in conjunction with the -sa, (-da) loading is used, and this overload necessarily weakens the attitude. But it should be noted that the conditional relationship will be available anyway, but it lies on the basis of the non-blocking relationship as a base, not directly. If such a knowledge does not exist, there will be concessive relationship" [8].

Hence, concessive includes a wide range of semantic variability as a functional-semantic category, at the same time it is built on the basis of a complex conditional relationship of different views. In other

words, it can be said that in cases of violation of the "unwritten law of the world", that is, in place of the event that it should be, the execution of an unexpected action is expressed in the specified sentences concessive. For example: Even if Akmal was sick, he went to work in the morning. Usually a sick person goes nowhere and lies at home, but the usual law is violated, and Akmal went to work.

Proceeding from this, it can be said that the term "concessive" is in many cases an inalienable link with the meaning of dependence. However, in the attitude of concessive and conflict, it can be seen that the attitude of concessive cannot be replaced by units that express concessive in most cases, even if the attitude of concessive can be expressed by oppositionists. At the same time, the means that denote the meaning of the concessive represent the meaning of the concessive stronger than the units that denote the conflict. In cases where the units denoting the obstacle and the conflict are used together, the units denoting the conflict perform the function of highlighting that obstacle. This means that the conflict forms the periphery of the concessive area and occupies a wider place than this area.

The meaning of concessive is also inextricably linked with the meaning of the condition. The collected materials indicate that in the language units pronoun, which represents the semas "concessive", there is, of course, the semas "term". This means that the semaphore of "concessive" is formed by means of a relative condition that cannot be prevented by an action or condition. This indicates that the role of the conditional sign in the concessive area is at the dominant level. In this regard, it should be noted that both the "concessive" sema and the "term" semas are expressed mainly with the help of the -sa condition declination suffix. In the attitude of concessive -sa suffix is also used in combination with (- da) predicates, although in its meaning a weak, hidden condition is preserved.

The peculiarity of the meaning of concessive is that it generates not only the expected result concessive to the "term", which is expressed among different situations, but also a completely different action or condition.

Proceeding from the above-mentioned points, the area of concessive can be described as follows: the set of units expressed by means of different language means of relations based on the content of cpncessive, while retaining the partial conditional meaning of the object in reality, is called the area of inaccessibility.

Conclusion.

Thus, the area of the concessive is formed on the basis of the expression of the meaning of the concessive of the language tools, the expression of which is different, and the means of expressing the concessive, depending on which level of belonging these language units, are also different in form: on the



morphological level, the word categories and the means that form them.

The concessive area also has its own core and periphery, like other functional-semantic areas. Morphological and syntactic units, which express the meaning of concessive more strongly and more accurately than other semas, constitute the core of the inaccessible area. In cases where this sema is expressed weakly in relation to other semantic relations, the sema of "concessive" takes place from the periphery of the field.

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STYLISTIC FEATURES OF UZBEK OFFICIAL SPEECH TEXTS

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ANNOTATION

In the article provides understandable information about the texts of official speech. Also, methodological features of Uzbek official speech texts are studied scientifically.

KEYWORDS: document, text, official speech text, written communication, oral communication, official document.

DISCUSSION

The style of official correspondence and documents is used to express, communicate information in international economic, legal and diplomatic relations, in mutual relations between government agencies, courts, trade.

Accordingly, in this style, articles of legal law, diplomatic references – notes, decisions of government agencies, decrees, orders, references, declarations, contracts, official announcements and messages, correspondence and similar documents are formed.

Since the scope of application of the style of official correspondence and documents is wide and varied, its composition is also diverse.

Formal style according to academic V.Vinogradov's classification, on the basis of the language's message-expressing function, it is studied separately from other types of speech[2,6]. Accordingly, it is also used to express the functions of communication, message expression and order in some places in the specified relationships and interpersonal relations

After the adoption of the law of the Republic of Uzbekistan "On the state language" on October 21, 1989, the scope of application of the official style in the Uzbek literary language has expanded and gained new meaning.

In connection with the granting of the status of the state language to the Uzbek language, there have been changes in the style and text of stationery documents and correspondence. The language of the documents was formed on the basis of the laws and regulations of the national literary language in accordance with the nature of the Uzbek language, the laws and regulations of the state language were reflected.

By our President Sh.M.Mirziyoyev Decrees "On measures to radically increase the prestige and position of the Uzbek language in the quality of the state language" adopted on October 21, 2019 have been met with great enthusiasm throughout our country. Every leader, employee and citizen in official circles, in the culture of written and oral communication, the program aimed at the formation of business papers on the basis of state language laws and regulations also serves as a follow-up. At the same time, the formation of documents on the basis of the Uzbek national literary language, the state language laws and regulations of the new era has reached a new level. To do this, in advance, each leader or employee is required to know the regularities of the structure of the official style.

We will also need to rely on scientific views in this area.

The following opinion of D. E.Rosental about the official style is also noteworthy: "this style of speech acquires a conservative character with a specific lexical composition and syntactic construction"[4,37].

This opinion applies to all manifestations of official speech.

In the last century Uzbek linguistics conducted a special scientific research on the official style. In 1987 - D.Bobokhonova defended the candidate's dissertation on the topic "The official-working style of the current Uzbek literary language".

The author of the dissertation first details the list of documents within the framework of the official style and emphasizes that each of them has its own style of formation (podstils) again within one style. For example: government decrees, orders, summons, laws, statutes, diplomatic



documents, international treaties, agreements, official messages, notes, ultimatums, embassy conventions, judicial prosecutorial documents, codes, trust papers, executive papers, judgments, court papers, legal acts, refusals, recommendations, statements about non-exclusion, accusation, accusative speech, statements of the court alternative decision, judgment, correspondence between state organizations, Act, statement, explanatory letter, reference, biography, description, application and others[5,7].

In the dissertation, each of these official documents was analyzed in terms of lexical-semantic, morphological and syntactic features of its own and universal features.

The peculiarities of this style are revealed by comparing it with other functional styles in the Uzbek language. For example, in texts related to this style, rather than taking lexical-semantic-stylistically, which are characteristic of the artistic style, do not meet the artistic image tools aimed at portraying reality, human emotions, thoughts and actions, consequently, the analogy, epithet, animation, metaphor, exaggeration, litotes and other means, elements of poetic lexicon, the use of numbers, conjectures, pronouns, pairs of words is not peculiar; and in morphological terms (-i)-m,-(i)ng,-(i)miz,-(i)ngiz,-(i)nglar, the absolute non-use of possessive indicators, such as *laring*, *-a/-y*, *-(i)b* the non-use of adverbial forms; syntactically, the non-uniqueness of exclamatory and interrogative sentences, of which the person is known, of which the person is unknown, of which the person is generalized, is explained by comparison of consonants in texts of official styles and other speech styles. This dissertation has gained scientific value for the development of Uzbek linguistics and Uzbek language stylistics [5].

During the years of independence, the features of the validity of our native language within the framework of the official style have changed seriously in connection with the content of documents formed in this style, the possibilities have expanded completely. In this sense, by Sh.Kuchimov in 1995, the candidate's dissertation on the topic "Language of the laws of the Republic of Uzbekistan" [8], in 2004, doctoral dissertations on the topic "Scientific and theoretical problems of the expression of legal norms in the Uzbek language" were defended[9]. In these researches it was noted that the main factor of the perfect development of laws at the level of international standards is the preparation of the language of normative documents in this field due to the peculiarities of our national language, the issues of legislative technique, method of expression of laws are important in the construction of a legal state, the formation.

In Uzbek linguistics, a large study on the study of speech styles in a monographic plan in a special systematic way was conducted. Karimov's monograph "Functional stylistics of the Uzbek language" was one of the major studies in the field of functional stylistics in Uzbek linguistics, which was of great importance from the point of view of the attitude to the studies conducted in the field of functional stylistics, summarizing the conclusions. At the same time, the development of functional styles was assessed from the point of view of socio-political changes in the Uzbek language in the period of independence [6]. In the monograph, the distinctive features of each style were studied in comparison with other style characteristics in the same system. In the structure of each style, the extralinguistic factors that form the basis, linguistic conditions were described by separate examples-texts. This monograph serves as an important guide to researchers conducting research on issues of functional stylistics.

In the years of independence, a number of practical manuals on the formation of official-work documents on the basis of the laws and regulations of the Uzbek literary language were also published. In Particular, N.Mahmudov, A.Madvaliev, N.Mahkamov and M.Aminovs in the book "Proceedings" (Munshaot) compiled by Aminovs, full examples of official documents are presented. In this book, The rules of the Uzbek structure of the texts of business papers are given; the names are also differentiated (*xarakteristika-descriptive*, *rekommendasiya-recommendation*, *doverennost-power of attorney*, *instruksiya-written*, *zakaz-order*, etc.) [7].

Before granting the status of the state language to the Uzbek language, both the names of the work papers and their texts were mainly based on the Russian language pattern, and Russian terms were often used in Uzbek texts. "The revizor has no right to accept *raspiska* for the reason that he is not a print, to register, to put a trailer on the *vedomost* and thereby pay you the requisite on the present."

In connection with the granting of the status of the state language to the Uzbek language, the work papers were written in the Uzbek language, and as already mentioned, almost all names were changed to Uzbek. In places where it is not possible, only Russian (mastered through the Russian language) names were left: telegram, phonogram; invoice, internship, patent, archive, etc.

Above we touched on the studies conducted on the official method. In them, on the basis of the rules of the Uzbek literary language, the legislation of the formation of official documents, specific lexical, morphological and syntactic signs, extralinguistic conditions are studied. But they did not focus on the features of the official style in the



case of one whole text. In our study, we will describe the features of official work documents in the case of a holistic micromath. In the texts of official speech, first of all, it is required that the statement be clear. The text formed in this style should not allow ambiguity, annotations. The idea and content should be explained in a simple, clear and understandable language: the state power in the Republic of Uzbekistan is carried out in the interests of the people and is carried out only by the offices that give authority to the Constitution of the Republic of Uzbekistan and the laws adopted on its basis. (Constitution of the Republic of Uzbekistan, Article 7). The accuracy of the structure of this text suggests that demand interacts with its scientific style.

The text should be clear, simple and understandable.

Simple or complex construction of sentences in the text of official speech is not the main measure, but clarity and fluency are important. Well, the clarity of thought, the brief and concise statement of the goal, the inadmissibility of comment are also characteristics inherent in the official style.

Each text in the RU is formed on the basis of a certain regulation, that is, order and rules, based on the content of the document. In this way, each of the official documents of different character, such as the order, application, decision, notification, reference, contract, greeting, has its own statement pattern, standard, template abstracts and sentences.

Due to the specific character of each document, the decisions are not peculiar to the

other style, clearly indicating the time of execution, the performer. Texts in this style are manifested mainly in written form.

It can also be seen that the characteristics that are relevant to other styles do not conform to the ore, as well as the characteristics that are inherent in it. For example, the concepts of formality and emotionality are opposite to each other in this style. That is what the logic of formality dictates. The "dryness" character of official texts does not allow the use of sub-evaluation expressive means. In this sense, it is located at the opposite pole, dependent on the artistic style. About it L.G.Barlas wrote: "Stylistic uniformity and perseverance (moderately biblical), objectivity and partial impersonation are inherent in the formal-business style. Emotionality, sub-evaluation and colloquial language are not characteristic of it. In this sense, the official-working style approaches the scientific style " [3,79].

The lexicon and stagnant compounds of the texts on the RU differ significantly from the language of texts belonging to other verbs of the Uzbek language. Therefore, in them we are faced with a separate word and stagnant combinations, which are practically not found in other methods of functions: employees, orders, personal content, administrative responsibility, civil status, civil responsibility, such as the culprit, the suspect, the victim, the defendant, the witness, the public guarantor, the interrogation, reconciliation with the victim. Below is an example of the text of business papers:

<p>National University of Uzbekistan</p> <p>15.02.2011</p> <p>About the recruitment of personnel on the personal composition</p> <p>Ahmedov Karim Egamovich with salary of 69700 from 2011.15.01 should be accepted (appointed) as a senior laboratory assistant of the scientific group of the faculty of Uzbek philology.</p> <p>Basic: K.E. Ahmedov application, permission of the dean's approval.</p> <p>Rector of University:</p>	<p>Sample of the order on recruitment 01-14</p> <p>ORDER</p> <p>№102</p> <p>(signature) Sh.O.Olimov</p> <p>signature (personnel department)</p>
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The syntactic construction of minimas, which are formed within the framework of the given official speech, is also specific. Declarative sentences are used a lot especially in the simple sentence form of composite. Spread and complex word combinations are productive, names of complex types are widely used. The structure of the sentence follows the usual norm in the Uzbek language and resembles a scientific style in the above-mentioned aspects.

For all normative documents formed in the text of the official style is a feature specific to

consistency. Each sentence in the text, each paragraph, each substance or paragraph is placed in a logical sequence, the next thought arises from the previous thought or is closely connected to it.

Thus, among the functional styles of the Uzbek language, the texts of the official style have a special position, and this integrity is manifested in the combination of linguistic and extralinguistic factors, the characterization of lexical-grammatical elements in the texts of this style. The correct and accurate compilation of the texts of official-work



documents, their observance of the rules of the literary language will serve to ensure the implementation of the tasks set out in the measures to improve the state language promoted by president in our country at the present time.

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ABOUT GENRE TYPOLOGY: FROM THEORY TO PRACTICE

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ABSTRACT

The article highlights the issues of modern genre theory: analyzes various approaches to the definition of the concept of "genre", examines the relationship between concepts "genre" - "text" - "discourse", proposes a multidimensional classification of genres, outlines the ways of applying the theory of genre.

KEYWORDS: *genre, linguistic factor, extralinguistic factor, literary text, situational context, sociolinguistic aspect.*

DISCUSSION

In modern linguistics, there is no unity of views on the nature and character of the concept of "genre". One of the main reasons for such disagreements is the different approach of researchers to the question of how linguistic and extralinguistic factors correlate in the structure of a genre, how extralinguistic factors are refracted in a language, what is the nature of this process.

In different points of view on the genre, two general approaches can be provisionally distinguished: classical (traditional, philological) and modern (non-traditional, sociolinguistic) [10, 26-29]. Each of these approaches offers its own model of the genre, within which there is a certain variability.

In the classical sense, the genre is considered as a type of literary text, defined by regularly recurring formal and semantic characteristics, having a rigid, unchangeable structure, classified in clear, mutually exclusive categories [2].

In contrast to the classical approach, the modern approach to the analysis of the genre is not limited to literary texts and extends this concept to nonliterary (scientific, educational, everyday, etc.) works. Moreover, recognizing the importance of studying regularly repeating similar formal and semantic characteristics of texts belonging to the same genre, representatives of the modern sociolinguistic approach regard these characteristics as a superficial structure, as a means of expressing another, deep similarity, similarity in social actions undertaken [5, 67-78]. Genres are treated not just as types of texts, but as typical rhetorical ways of expressing repetitive social situations.

Among the followers of the sociolinguistic

approach, there is a certain variability in points of view on the ratio of linguistic and extralinguistic factors in the formation of the category of the genre.

The analysis of various interpretations of the genre within the framework of this approach made it possible to identify at least three areas of research represented by a number of linguistic traditions: functional (stylistic), sociocognitive (rhetorical) and linguodidactic (ESP, Australian system-functional linguistics).

The functional direction is presented in the works of Russian linguists who study the genres of the functional style of scientific prose. In the interpretation of representatives of this direction, a genre is a kind of functional style. Genre as a kind of functional style is determined by three factors: 1) compositional structure; 2) the nature of the information it contains; 3) the emotional coloring of this information [9].

Each genre of the functional style of scientific prose has its own model of construction or compositional structure as a set of methods for organizing scientific information, due to the specifics of the purpose of various genres in the process of communication.

The functional interpretation of the genre, although we have referred to the modern (sociolinguistic) approach, rather occupies an intermediate position between the classical (philological) and modern (sociolinguistic) interpretations. It differs from the first in that it explores non-fiction texts, and from the second in that it only postulates the specifics of the purpose of various genres in the process of communication, but does not investigate its character.

In the works of representatives of the sociocognitive direction, the main attention is



focused on the situational context in which genres exist, and not on their form and content. Particular importance is attached to social goals or actions that genres perform in given situations.

Some authors of this direction completely refuse the genre in linguistic characteristics, making a strict division between the genre and the type of text. Genre, in their opinion, characterizes the text only on the basis of external criteria, namely the purpose of communication, while the type of text unites texts that are similar in linguistic form regardless of the purpose of communication, that is, genre [1, 68].

Thus, supporters of the sociocognitive direction give priority to the study of extralinguistic, extratextual factors in the structure of the genre, the social situational context in which genres exist, while linguistic factors, as a rule, remain aloof from the analysis.

In the works of researchers of the third, linguo-didactic direction, a different approach to understanding the genre and its study is presented. The genre is seen as a tool for the analysis and teaching of oral and written varieties of the language for educational and professional purposes.

Research in this direction is represented by two scientific traditions: the ESP (English for Specific Purposes) school and the Australian system-functional linguistics, which, despite the common ground, have certain differences. First of all, it is the fact that researchers of the ESP genre, as a rule, are used in teaching English for foreigners for special purposes, while in the Australian tradition - for teaching native speakers at school on texts of a non-professional orientation.

According to ESP scientists, a genre is an oral or written type of text, determined by its formal properties, as well as communicative goals in a social context [4, 693-722].

Genres are defined as classes of communicative events, the participants of which have a common set of communicative goals, while these classes of communicative events are characterized by a common structure, style, content and intended audience.

As follows from the above definitions, supporters of the linguodidactic approach are trying to combine socio-cultural, linguistic and cognitive aspects in the concept of "genre".

However, in their studies scientists of this tradition focus on the formal characteristics of the genre to the detriment of the special functions of texts and the social context. In this case, we can talk about a certain similarity between ESP research and the functional direction.

The Australian interpretation of the genre was developed within the framework of a fundamental theory of language known as system-functional linguistics.

System-functional linguistics is concerned with the study of the relationship between language

and its functions in a social context. A genre in systemic-functional linguistics is defined as a purposeful social process, a structural form used by a given culture in certain contexts to achieve various goals?

As noted above, unlike ESP studies, Australian scientists work focuses mainly on primary and secondary school genres, that is, non-professional texts. At the same time, Australian researchers, like the researchers of the genre in ESP, pay great attention to the linguistic characteristics of genres.

The analysis of various scientific traditions, directions and approaches to the study of the genre allows us to conclude that the genre is an interdisciplinary category studied by philology, sociology, cognitology, psychology, linguistics and other sciences.

The modern linguistic understanding of the genre is associated with sociolinguistic studies, therefore the genre is considered by us as an object of sociolinguistic analysis. The genre is an independent level of analysis, not given to us in direct observation, but manifested in the typical, regularly recurring properties of texts and social contexts. The units of this level in our understanding are the aggregates of texts in social contexts.

A genre is a connotative semiotic system that has its own tone of content and expression. The content plan, or the deep structure of the genre, is represented by extralinguistic factors, such as similar social actions in regularly repeated social contexts, including communicative situations, participants and their roles, goals and types of activities, thematic content. The plane of expression, or surface structure, is made up of similar linguistic means: texts and their constituent units, lexical, grammatical, stylistic, compositional, etc. With the help of linguistic means, the genre structures social actions in time and space.

At the level of linguistic means, a genre is an aggregate of types of texts that have similar, regularly recurring formal and semantic characteristics. At the level of extralinguistic factors, genre is a set of types of social actions in similar, regularly repeated social contexts [6, 1-40; 9; 11].

In general, a genre can be characterized as a collection of texts that have similar, regularly recurring formal and semantic characteristics and reflect similar social actions in regularly recurring social contexts. Such a definition, in our opinion, to a certain extent balances the linguistic and extralinguistic factors in the structure of the genre and allows one to study the superficial and deep structure of the genre in their inextricable connection, explaining one through the other.

Understanding the genre as a type of texts in similar social contexts allows us to define it through the category of discourse [3; 7; 8].



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SOCIAL LINGUISTIC STUDY OF THE TOPONYMS OF FERGHANA VALLEY

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ABSTRACT

The study of toponyms in Uzbek linguistics is significant as they have a historical and social meaning. The aim of the article is to provide the feedback on the socio-linguistic study of toponyms in Feghana Valley. The study was conducted on the bases of the research of famous toponymists and the encyclopedic data. The toponyms of Ferghana Valley were studied according to the historical periods, each of the periods have their own motives in naming the places. The criterion of classifying the toponyms was suggested by the author. The socio-economic, political, spiritual and cultural life of the historical periods is the bases for naming the places.

KEYWORDS AND EXPRESSIONS: *toponym, toponymy, nomination, sociolinguistics, sociolinguistic aspect, sociolinguistic analysis, socio-historical factor, motive, motivation.*

INTRODUCTION

It is undeniable that among sociolinguistic studies there are very few special works on the study of toponyms in Uzbek language. This is because the method of sociolinguistic research is not applied uniformly to all areas of language. Nevertheless, the problems of the linguistic onomasiological system related to the development of society, although not under the term "sociolinguistics", have always been studied by toponymists [2; 44]. Because in onomastic research, as well as in research related to toponyms, it is impossible to draw the right conclusions without adequate consideration of non-linguistic factors.

MATERIALS AND METHODS

Issues such as the relationship between language and society, that is, the role of language in the life and development of society and, conversely, the role of society in the development of language, are the object of study of a new field of linguistics - sociolinguistics (social linguistics). Sociolinguistics is a field that has emerged between linguistics (intralinguistics) and the social sciences, which studies the internal structure of language, and it studies the social aspects of language construction. The relationship between language and society is inextricably linked, and language cannot be imagined in isolation from society, and society from language. The development of language is also related to the development of society. After all, the multifaceted life of a society is reflected in its language. That is why it is not accidental to say that "Language is the mirror of society" [1; 15]. Sociolinguistics also plays

a special role in the study of proper nouns from a social point of view, which is an important component of the richness of language vocabulary. In particular, Professor E. Begmatov noted about the application of the sociolinguistic aspect to onomastics: One such lexical phenomenon is onomastic material, i.e. proper nouns. In particular, most types of proper nouns, their nominative functions, the meaning and etymology of names, lexical layers, the factors that form the basis for their creation can be solved only by a social approach to them "[2; 44, 48].

For example, place names studied in the onomastic system, i.e. toponyms, are also formed in connection with various changes in society. The place and role of social factors in the development of toponyms is especially evident in their emergence and nominative functions. That is, in the naming and motivation of toponyms, the customs, living conditions, language, culture, occupation, as well as other socio-historical factors of people in a particular area play an important role. That is why the Russian toponymist AV Superanskaya noted: "The motives of any name have historical and social meaning" [3; 101].

If we look at the creation of toponyms, their nominative-motivational features, it can be seen that "even the most random name was formed in certain periods due to social need" [4; 76]. That is, names are created by people because of a social need in a particular place and time. The period and the reason for naming are recommended by the period. Therefore, any name occurs as a product of time and epoch. In particular, as Professor T. Nafasov noted,



each period, the social system had its own principles and requirements for naming objects in accordance with their views. By adopting ancient names, each period, system creates a set of names based on socio-natural factors such as its ideology and spirituality, culture, mode of production, economic activity and attitude to nature [5; 26]. Based on this, we have divided the following groups into groups based on the creation and naming of socio-economic toponyms of the Fergana Valley and tried to analyze their nomination process in terms of different periods and stages.

RESULTS AND DISCUSSIONS

1. Toponyms formed on the basis of socio-political terms. Toponyms of this type appear in connection with the social life and ideology of a particular period and reflect the specific image of this period. In particular, the socio-political terms of the Kokand khanate period have left their mark on toponymy, consisting of such units as *mir // amir, khan, king, tora, bek, oyim, oyimcha, mergan, ponsod, mahram, dodho, otalik, kurboshi, biy*, which reflect the state structure of the khanates and emirates, the position and status [6; 33, 35]. Most of these units are used in conjunction with human names: *Oyimchaqaqir, Oyim, Qurbonmergan, Ashirqulmergan, Otaliq, Dasturkhanchi, Ashirqulmergan, Qazi-kuzot (Uzbekiston district), Katta Amirabod, Kichik Amirabod (Dangara district), Oyimcha (Kushtepa district), Begvachcha (Baghdad district), Ghaznachi, Ponsod (Buvayda district), Oyim (Buvayda, Jalalkuduk districts), Bakovul (Uchkuprik), Shikorbegi, Naib kuprik (Kokand city), Ofobachichek (Oltinkul district), Kholmatdodho (Asaka district), Khankurgan, Chindovul (Kasansay district), Khanabad (Kushtepa district, Namangan region, Pop district), Sharifmergan (Uychi district), Shukurmergan (Marhamat district), Orta Khanabad, Mirabad (Pop district), Shahrikhan, Nazarmahram (Shahrihan district).*

This type of toponyms is also typical of the former Soviet period, and includes the following toponyms that emerged in connection with the political and ideological views and personal national interests of the period: *Kommunistov, Sovetobod, Komsomolabad, Sovet, Kommunizm, Kommunist, Internatsional, Kommuna, Partsyezd, Socialism, Pionerskaya, Revolution, Union, Komsomolskaya, Krasnoarmeyskaya, Proletarian, Sovetskaya*, etc.

Names such as *Mustaqillik (Independence), Istiqlol (Sovereignty), Istiqbol (Prosperity), Xalqlar do'stligi (Friendship of people), Milliy tiklanish (National revival), Tinchlik (Peace), Birdamlik (Solidarity), Xamdo'stlik (Commonwealth), Hurriyat (Freedom), Ozodlik (Liberty)*, formed by socio-political terms, are also found in the neotoponyms

created in connection with our national idea and mentality of the independence period.

2. Toponyms based on human names:

The origin of anthrotoponyms is also associated with certain changes and patterns in society, and each period has its own set of names for this group. In particular, a large part of the anthrotoponyms that are common in the Fergana Valley today originated in the period of the Kokand Khanate. For example, most anthrotoponyms originated through the names of khans and their children, brothers, cousins, officials who held important positions in the palace, scribes, military commanders and clergy [7; 26]. For example: *Sheralichek, Nasriddinobod, Ormonbek, Sultanmurodbek* (Balikchi district), *Holmatdodho* (Asaka district), *Avliyochek* (one of the closest consultants of Khudoyorkhan, whose name is derived from the name of the saint Jesus) (Shahrikhon district), *Jumaboychek, Khudoyorkhan, Ashirqulmergan* (Uzbekistan district), *Hasankurgancha, Yusufkurgancha, Hakimto'ra, Alimergan, Rahmatillo* (Buvayda district), *Botirkhoja, Qurbon kashkar, Urozmergan, Eshimbek, Usmonbek, Boboshbek* (Uchkuprik district), *Chedalio (Saydaliob)* (Rishtan district), *Chek Jurabek, Chek Sharif, Numanabad* (Furkat district), *Tokhlimergan, Davronbek* (Kokand city) and others.

Anthrotoponyms of the former Soviet era are derived from the names of Soviet statesmen, Communist Party leaders, military commanders and revolutionaries, major figures and scholars of Russian literature, as well as the World War II heroes and famous cotton masters, based on their political systems and ideologies: *Ilichevsk, Leninsk, Lenin, Karl Marx, Lenin yoli (Lenin's Way), Leninobod, F.Engels, Kuybishev, Dzerzhinsky, Kirov, Frunze, Orjonikidze, Kalinin, Sverdlov, Chapaev, Voroshilov, Babushkin, Chkalov, Klara Tsetkin, Georgiy Dimitrov, Ernst Telman, Pushkin, Chekhov, Lev Tolstoy, Lermontov, Nekrasov, Gogol, Mayakovsky, Zhukovsky, Ostrovsky, M. Gorky, Academician Pavlov, Academician Kassirsky, Tsiolkovsky, Lomonosov, Michurin, Gostello, Sabir Rakhimov, Mamajon Toshmatov, Meliqo*.

The names of scientists and thinkers, national heroes, great representatives of classical and modern Uzbek literature, famous scientists and artists, who grew up in our country during the independence, are reflected in the following toponyms: *Ahmad Fergani, Beruni, Mirzo Ulugbek, Al-Khorezmi, Mahmud Kashgari, Zamakhshari, Sahibkiran Temur, Amir Temur, Alpomish, Tomaris, Afrosiyob, Jaloliddin Manguberdi, Shirak, Muqanna, Nodirabegim, Mohlaroyim, Huvaydo, Cholpon, Ibrat, Fitrat, Abdulla Qodiri, Abdulla Qahhor, Khamid Olimjon, Ozod Sharafiddinov, Ahror Muzaffarov, Siroj Sahobiddinov, Mamurjon Uzokov, Murodjon Ahmedov, Yusufjon Qiziq Shakarjonov*.



3. Toponyms with professional names.

This type of place names combines aspects of the economic life of the people - the occupation, economic activity, as well as changes and developments in the life of society related to this area. For example, in the nomination of such toponyms, the creation of which is considered to be much older, is based on handicrafts such as blacksmithing, nailing, coppersmithing, toolmaking, goldsmithery, sewing, weaving: *Misgarlik*, *Parpashabop* (Kokand city), *Degrezlik* (Kokand city, Namangan city), *Oqchi Dasht*, *Oqchi Rajabgardi*, *Oqchi Bazarboshi*, *Oqchi Qushqonok* (Uzbekistan district), *Yukori Oqchi*, *Oqchi*, *Karnaychi*, *Bordonchi* (Kushtepa district), *Mixchagar*, *Tarrachi* (Buvayda district), *Chinnigaron* (Rishtan district), *Ipakchi*, *Kosibchilik*, *Miltiqsoz*, *Yormadoz*, *Pichokchi* (Margilan city), *Sokchilik*, *Kigizchilik*, *Qamchipurush* (Tashlak district), *Dozanda*, *Zargaron* (Chust district), *Chitgar* (Kasan district), *Mullakuding* (Namangan). It can be seen that the names of toponyms associated with the development of science, technology, various fields are based on the names of certain professions or specialties: O'rmonchilar (*Foresters*), To'qimachilar (*Weavers*), *Quruvchilar* (*Builders*), *Murabbiylar* (*Mentors*), *Shifokorlar* (*Doctors*), *Kimyogarlar* (*Chemists*), *Dehqonlar* (*Peasants*), *Aviasozlar* (*Aviators*) (Fergana city), *Ohakchi* (*Painters*) (Bagdad district), *Temiryo'lchi* (*Railwaymen*) (Kokand city), *Neftchilar* (*Oil industry workers*), *Shifokor* (*Doctors*) (Ferghana district), *Ziyokor* (*Intellectuals*) (Uzbekistan district), *O'qituvchilar* (*Teachers*) (Kushtepa district), *Sanoatchilar* (*Industrials*) (Quva district), *Ishchilar shaharchasi* (the town of workers) (Oltiariq district), *Ishchi* (*Worker*) (Namangan city) and some others. The peculiar feature of these neotoponyms is that the representatives of the mentioned areas do not live in these territories, but there are some objects which are associated with them, as the educational institutions, hospitals, airport, factories, plants and others.

4. Toponyms with plant names: Although phytotoponyms are included in the group of natural or natural-geographical toponyms by many toponymists on the basis of creation [8; 9]; the changes in society leave their mark in their naming in a certain sense. For example, if the most of the phytotoponyms created in the period of the Kokand khanate are formed by units denoting the names of wild plants, trees and some related concepts, such as yulgun, yantoq (alhagi), turangi, gumay, jingil, qamish (reed), tol (willow), chinor (plane), tut (mulberry), terak (poplar), zig'ir (flax) and yog'och (wood): *Saritol*, *Mozortol*, *Bakhshitol*, *Tol*, *Yakkatol*, *Qaroqchitol*, *Mayda yulgun*, *Yulguntepa*; *Qamishkurgan*, *Qamishloq mazor*, *Childhood Karagaygach*, *Yantak*, *Yakkatut*, *Charbagh turangi*, *Beshtarak*, *Zigir kishloq*, *Oqjangal* // *Oqjingil*, *Gumayli*, *Marguzor (otzor)*, *Chinortepa*, *Yakka*

Qayragach; in the recent past, most of the phytotoponyms created during independence period include cultural plants such as anjir (figs), anor (pomegranates), uzum (grapes), olma (apples), bodom (almonds), o'rik (apricots), as well as the names associated with flowers such as lola (tulips), rayhon (basil), gul (flower): *Anjirzor* (Namangan), *Anorzor* (Namangan, Quva, Chortoq), *Bodomzor* (Namangan), *Majnuntol* (Namangan), *Uzumzor* (Marg'ilon, Buvayda districts), *Olmazor* (Pop, Altariq districts), *Urikzor* (Quvasay, Kasansay, Chortoq districts), *Boychechak*, *Qirlola*, *Lola*, *Lolazor*, *Kashtanzor* (Ferghana), *Rayhon* (Kokand), *Gul* (Buvayda), *Gulzor* (Ferghana, Uychi districts) and etc.

In addition, the toponyms created by the name of cotton plant during the Soviet era are a characteristic feature of this system. According to the toponymist S.Koraev, more than 50 dwelling areas are named by this unit as *Paxta* (*Cotton*), *Paxtakor* (*Cotton picker*), *Paxtakon* (*Land of cotton*), *Paxtakesh* (*Place of cotton*), *Paxtakurash* (*Struggle for cotton*), *Paxtachi* (*Cotton grower*), *Paxtaqaynar* (*Heaps of cotton*), *Paxtaqishloq* (*Cotton Village*) [8; 53, 54]. There are several toponyms formed through the cotton lexeme in the Fergana Valley as *Pakhtakor* (Quvasay, Kushtepa, Boz, Pakhtaobod, Dangara, Furkat, Pop districts), *Pakhtaobod* (Shahrikhan, Pakhtaobod, Quva, Pop districts), *Pakhtakishloq* (Norin district), *Pakhtachi* (Yazyovan, Uchkurgan), *Pakhta* (Baghdad), *Pakhtaboston* (Uzbekiston), which are still exist in the language as a product of that period. At the same time, it is incorrect to evaluate all such toponyms as phytotoponyms, some of which are names that have emerged in connection with the agricultural culture and occupation of the people.

5. Names arising in connection with religious beliefs, concepts and ideas: Toponyms are also important in the nomination of people's religious views, which can be analyzed mainly in the context of ethnotoponyms and anthropotoponyms. In particular, ethnonyms based on totems are very ancient. Their emergence dates back to the time of the pagans, that is, the fire-worshippers [8; 87]. Accordingly, members of certain clans and tribes were associated with an animal, plant, or object, and these things were consecrated and worshiped [10; 20]. Such words denoting totem types later became ethnonyms and gained the status of place names, thus fixed in the language. The toponyms as *Bahrin* (a type of falcon), *Karga*, *Hakka*, *Kaltatay* (horse type), *Yobu* (horse type), *Korkoyly*, *Alakoyly*, *Tuyachi*, *Takalar*, *Takali*, *Buritopi*, *Boriboshi*, *Noraybori*, *Okechki*, *Akboyra* (camel), *Olabaytal*, *Munduz* (racehorse), *Doltali* (hyena), *Chagali*, *Ayronchi* (a bird), *Kushchi*, *Bagish* (deer or a type of deer), *Chongbaghish* exist as the totem denoting sacred animals in the area, which we explored.



Also, in the early period, in connection with the mythological image of the local peoples, most temple and shrines were named after various gods and spirits who help people, after the adoption of Islam, the sacred places of pilgrimage and shrines were named after prophets and saints, famous sheikhs and imams, which was taken as the main criterion for their naming. For example, according to the toponymist Sh. Kamoliddin, the oykonym of Ardahshan in Furkat district of Fergana region is associated with the name of the god Vakhsh, and the oykonym of Nanay in Yangikurgan district of Namangan region is associated with the name of the Zoroastrian fertility god Nanayya [11; 46].

The places of pilgrimage and villages named after the names of the prophets and saints as Hazrat Ayub in the Middle Ages, *Takhti Suleiman* in Osh, as well as *Imamota*, *Karimbobo*, *Hizirot*, *Ghoibota*, *Satkakaziz*, *Koktonliota*, *Zuraymomo*, *Poshshopirim*, *Eshonbobo*, *Bobotarkhan*, *Bobogazi*, *Buvayda*, (*Bibi Ubayda*), *Sherali buva*, *Yalangochota*, *Kuchkorota* are derived from Islam.

Alternatively, the term "relative ethnotoponyms" is used in the language [12; 34], including a layer of toponyms with the components *eshan*, *khoja*, *sufi*, *sheikh* which have hidden senses from Arabian language, and, in general related to Islam: *Khoja* (Beshyogoch, Andijan), *Khojamahalla* (Uychi, Asaka, Andijan), *Khojatopi* (Asaka, Baliqchi, Khojaobod), *Khojakurgan* (Kasan), *Khojaabad* (Pop, Baliqchi, Shahrikhon), *Khojakishloq* (Namangan), *Eski Khojaabad*, *Yangi Khojaabad* (Pop), *Eshontopi* (Andijon, Marhamat, Yazyovon), *Eshonguzar* (Koshtepa), *Eshanqishloq* (Baliqchi, Shahrikhon), *Eshonchek* (Baliqchi), *Shaykhan* (Kasan, Pop), *Sufis* (Toshloq), *Sufi* (Kuva, Uchkoprik) and others.

It should be noted that geographers and naturalists believe that such names with religious significance, including shrines and places of pilgrimage, have one of the secondary important functions in social life - being ecotoponyms, they have a function of protecting the nature of the place [9; 43].

6. Toponyms formed on the basis of tribal names. Ethnotoponyms are relics of a long historical period and are very valuable as an important source in the study of the history of particular people, its ethnic composition, indicating and defining the boundaries of their distribution [6; 9].

Such toponyms, formed on the basis of the names of many ethnic groups that emerged in our region as a result of various changes in society, invasions, political regimes or migration, serve to determine the boundary of spread of different nations as Karakalpaks, Kirgiz, Kazakhs, Uyghurs and Tajiks, besides 92 Uzbek tribes.

For example, the "right" and "left" sides of Kirgiz tribes show the place names such as *Kipchak*,

Takali, *Chapqildiq*, *Nayman*, *Boston*, *Munduz*, *Bagish*, *Chongbagish*, *Kirgiz*, *Kokalan*. *Kipchak*, *Durman*, *Kirgizlar*, *Bagish* in Koshtepa district, *Takali*, *Chopqildik* in Yazyavan district, *Naiman* in Quvasoy city, *Naiman boston*, *Boston*, *Bostanabad* in Toshloq district, *Arbagish* in Chartak district, *Kokalan*, *Munduz* in Jalakuduk district, *Pakhtaboston* in Uzbekistan district, *Kirgizmakhalla* in Rishtan district, *Kirgiz*, *Kirgizguzar* in Asaka district, *Kirgizkurgancha* in Buvayda district are connected to these very nations.

Tojik in Andijan city, *Kattatojik* in Asaka district, *Tojikmahalla*, *Tojikobod*, in Altinkul and Toshloq districts, *Shurtojik* in Shahrikhan district, *Tajik Muyon* in Quvasoy district, *Matchoyi* in Boz district formed by the units showing dwelling of Tajiks in these areas, as well as the ethnic origin of Uyghurs and their migration from East Turkestan to the Fergana Valley in the XVIII-XIX centuries. [12; 42, 43] The existence of dozens of Uyghur villages in Andijan region, such as *Kashkarqishloq*, *Uyghurqishloq*, *Tog'liq*, *Janjal*, *Tokqizak*, *Qavul*, *Pushmon*, *Eshakchi*, *Tovorch*, *Paydo*, *Kepakchi*, shows that tribal names have not lost their significance not only in the past but also today.

CONCLUSION

It should be said in conclusion that toponyms are a mirror of any social change which takes place in society. The creators of names are the people, and toponyms appear as an expression of the thinking of society (people). Periodicity and gradualness are the main laws of naming the places. Therefore, the socio-linguistic analysis of changes related to the naming of place names allows to identify important aspects of a particular period, the specific socio-economic, political, spiritual and cultural life of the system, which are considered the basic factors for naming.

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THE FUNCTIONS OF PREPOSITIONS IN ADVERBIAL SEMANTICS IN PHRASEOLOGY

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ANNOTATION

The article deals with the functioning of prepositions of circumstantial semantics in phraseological units. The author argues that prepositions with circumstantial semantics can sufficiently serve as a formal indicator of adverbial phraseological units in their categorical differentiation

KEY WORDS: *microgroup, categorical distinction, adverbial value, grammatical form, an expression of the ultimacy, the limit distribution of the activity, the limit of intense action*

ФУНКЦИИ ПРЕДЛОГОВ ОБСТОЯТЕЛЬСТВЕННОЙ СЕМАНТИКИ ВО ФРАЗЕОЛОГИЗМАХ

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Аннотация

В статье рассматривается вопрос функционирования предлогов обстоятельственной семантики во фразеологизмах. Автор утверждает, что предлоги с обстоятельственной семантикой в достаточной мере могут служить формальным показателем наречности фразеологических единиц при их категориальном разграничении

Ключевые слова: *микрогруппа, категориальное разграничение, наречное значение, грамматическая форма, выражение предельности, предел распространения действия, предел интенсивного действия*

По утверждению академика В.В.Виноградова, «...в русском языке предлоги в большей своей части ещё не вполне утратили лексическую отдельность и ещё не стали простыми падежными префиксами, совсем лишенными способности непосредственно выражать обстоятельственные отношения» [1]. Опираясь на данное положение, можно заключить, что предлоги с обстоятельственной семантикой в достаточной мере могут служить формальным показателем наречности фразеологических единиц (ФЕ) при их категориальном разграничении.

В русском языке к числу предлогов, обладающих наречным значением, относятся следующие: **для, ради, среди, при, до, во**. Рассмотрим каждый из них в отдельности.

В первую микрогруппу объединены наречные ФЕ, внешняя грамматическая форма которых оформлена предлогами **для** и **ради**: *для ровного счёта, для отвода глаз, для очистки совести, ради красного словца* и др. Например: *Но, хотя наизусть помнил координаты, прежде чем сказать ещё раз, для очистки совести, взглянул на карту* [2, кн.2, С.334]; *Не знаю, как вы, а я обязан хотя бы попробовать, для пользы дела, - уже с закрытыми глазами сказал Синцов* [2, кн.1,



С.295]. У этих единиц предлог является достаточным грамматическим показателем наречности, так как они сами по себе указывают на целевые отношения. Эта обстоятельственная семантика, безусловно, указывает на то, что подобного рода фразеологизмы относятся к наречным.

Вторая микрогруппа представлена лишь одной единицей: *среди бела дня*. Например: *Она ехала среди бела дня на грузовике из медсанбата* [2, кн.3, С.483]. Здесь предлог **среди** (вариантная форма **среди**) в сочетании с родительным падежом указывает на временное отношение, т.е. он может в достаточной мере служить грамматическим показателем наречности данной единицы.

Основной функцией предлога **при**, с помощью которого оформлены отнесенные в данную микрогруппу фразеологизмы, является указание на срок, промежуток времени, по истечении которого совершается какое-нибудь действие: *при смерти, ни при чём, при последнем издыхании* и др. Например: *Ещё при царе Горохе, на заре века, в приходской школе учил, а вот ведь не забыл* [2, кн.1, С.333]; *По-моему, если бы ваш водитель напомнил вам о них, вы бы всё равно избавились от них при первом удобном случае* [2, кн.1, С.136].

В четвёртую микрогруппу отнесены наречные ФЕ, внешняя грамматическая форма которых оформлена предлогом **до**: *до последней капли крови, до белой горячки, до самых потрохов, до самых печёнок, до скончания века, до потери сознания, до положения риз и др.* Например: *Вот вы тут о смерти заговорили, и я вам тоже скажу, чтоб не возвращаться, чтоб вы меня до самых потрохов поняли* [2, кн.1, С.113]; *Комендант охрипшим голосом прошептал, что есть приказ маршала Тимошенко оставить Борисов, отойти за Березину и там, не пуская немцев дальше, защищать до последней капли крови* [2, кн.1, С.169]. Отнесение единиц с подобной конструкцией к наречным основано на том, что предлог **до** в сочетании с родительным падежом служит для выражения предельности чего-нибудь, которое свойственно обстоятельственным отношениям.

В данную микрогруппу включён широкий круг наречных ФЕ, оформленных предлогом **во**: *во весь опор, во весь рост, во весь голос, во весь мах, во все лопатки, во все уши, во всё горло, во все тяжкие, во всю ивановскую, во всю пропащую и др.* Например: *Военнослужащим, направляемым на сортировку и формирование, иметь на руках оружие вообще не положено, а трофейное - во всяком случае* [2, кн.1, С.169]; *Он сел, опираясь на руки, оглянулся на спящего*

Шмакова и тихо поднялся, сделав знак рукой, чтобы не докладывали во весь голос, не будили комиссара [2, кн.1, С.145]. Отнесению подобного рода единиц в разряд наречных способствовал тот факт, что в составе ФЕ предлог **во** употребляется не в том значении, в каком обычно функционирует предлог **в**, как его модификация с точки зрения современного русского языка, а для обозначения возможного предела распространения действия или предела интенсивного действия [3]. Из этого следует, что предлог **во** в таком значении тесно сближается с предлогом **до**, и фразеологизмы, оформленные им, отнесены нами в предыдущую микрогруппу, так как он более рельефно выражает их близость к наречным ФЕ.

Таким образом, при категориальном разграничении фразеологизмов, помимо целостного значения, существенную роль играет и его внешняя грамматическая форма, которая может предсказывать отнесенность той или иной ФЕ к соответствующей фразеологической части речи. В частности, наличие во фразеологизмах предлогов с обстоятельственной семантикой с большей долей вероятности говорит об их принадлежности к наречным ФЕ.

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THE VIABILITY OF POLLEN OF THE ORIGINAL SPECIES AND INTERGENOMIC HYBRIDS OF COTTON

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ЖИЗНЕСПОСОБНОСТЬ ПЫЛЬЦЫ ИСХОДНЫХ ВИДОВ И МЕЖГЕНОМНЫХ ГИБРИДОВ ХЛОПЧАТНИКА

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АННОТАЦИЯ: Приведены данные о жизнеспособности пыльцы у диплоидных, полиплоидных видов хлопчатника и их внутривидовом разнообразии, а также о гибриде F₁, F₂ полученных на основе межвидовой гибридизации. Указано на наличие высоких показателей по данному признаку у изученных видов, их гибридов и определение степени их филогенетического родства.

Ключевые слова: жизнеспособность пыльцы, фертильность, урожайность, устойчивость, межвидовые гибриды, амфидиплоид, дикие диплоидные виды, культурно-тропические формы.

ВВЕДЕНИЕ

Успех гибридизации определяется наряду с другими факторами жизнеспособностью пыльцы родительских форм, участвующих в скрещиваниях. Высокое качество пыльцы обеспечивает получение полноценного потомства. Анализ жизнеспособности пыльцы облегчает создание правильного представления и об условиях, определяющих нормальное его существование, что крайне важно для установления сроков искусственного опыления и проведения скрещиваний.

Высокая жизнеспособность пыльцы гибридов дает возможность использовать их в скрещиваниях при решении теоретических и практических задач селекции, например, перенос признаков дикорастущих видов культивируемым сортам (5).

Работа в этом направлении проводилась многими исследователями.

Жизнеспособность пыльцы представителей вида *G. hirsutum* L. и *G. trilobatum* Lam. почти одинакова, но немного ниже, чем у *G. barbadense*. Жизнеспособность пыльцы у гибридов F₁ *G. hirsutum* x *G. trilobatum* значительно выше, чем у исходных родительских форм (1).

Авторы пишут, жизнеспособность пыльцы у исходных видов хлопчатника и их гибридов оказалась высокой, причем у полиплоидов выше, чем у диплоидов (2).

Привели данные о жизнеспособности пыльцы у полиплоидных видов хлопчатника *G. hirsutum* L., *G. trilobatum* Lam., *G. barbadense* L., *G. darwinii* Watt. *G. mustelinum* Miers ex Watt и их внутривидовом разнообразии, а также о гибридах F₁, полученных на основе межвидовой гибридизации. Указали на наличии высоких показателей по данному признаку у изученных видов и их подвидов и определение степени их филогенетического родства (3).



РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЯ.

Как видно, из литературных данных, жизнеспособность пыльцы хлопчатника зависит от многих факторов – особенно от генетической структуры растения и наличия при которых проявляется данный признак.

Жизнеспособности пыльцы у исходных видов хлопчатника и их гибридов оказалось высокой. Наибольшая жизнеспособность пыльцы оказалось у форм вида *G. tricuspidatum* var. bogota - 93,82 %, var. el salvador – 94,13 %. Наименьшую жизнеспособность пыльцы мы отметили у *G. aridum* (82,84 %). Жизнеспособность пыльцы варьирует как в пределах вида, так у гибридов F_1 и F_2 . Варьирование показателей жизнеспособности пыльцы и родительских видов было незначительно у *G. aridum* от 73 до 99 % (коэффициент варьирования 2,67 %), у *G. armourianum* от 80 до 90 % (коэффициент варьирования 2,0 %). У форм вида *G. tricuspidatum* коэффициент варьирования – 4,61 %.

У гибридов первого поколения коэффициент варьирования гораздо выше, чем у родительских видов. Наибольший коэффициент варьирования жизнеспособности пыльцы мы отметили у F_1 var. el salvador x *G. armourianum* (24,5 %) а наименьший у F_1 var. el salvador x *G. raimondii* (1,23 %). Сравнивая жизнеспособность пыльцы по поколениям, можно заметить, что в F_1 она несколько выше, чем в F_2 , а в F_3 процент жизнеспособности пыльцы возрастает. Понижение жизнеспособности пыльцы во втором поколении, объясняется, по видимому, появлением большого количества растений с нарушениями спорогенеза. В дальнейшем, когда большинство уклонных, уродливых и бесплодных форм выпадает на посева и остаются только растения плодоносящие, нормально развитые, процент жизнеспособной пыльцы возрастает (F_3).

Снижение жизнеспособности пыльцы и повышение коэффициента варьирования отмечалось во втором поколении. Особенно оно было заметно у гибридов одним из родителей которых являлась var. bogota. Жизнеспособность пыльцы их было особенно низкой: у F_2 var. bogota x *G. aridum* – $19,65 \pm 3,2$ %; F_2 var. bogota x *G. harknessii* – $62,82 \pm 9,27$ %, что свидетельствует о филогенетической отдаленности скрещиваемых видов.

Если сравнивать гибриды второго поколения, то можно заметить, что жизнеспособность пыльцы выше у var. marie galante x *G. harknessii* $88,47 \pm 3,5$ % и у трехгеномного гибрида у F_1 (var. el salvador x *G. raimondii*) x C-6037 – $86,91 \pm 11,1$. Наиболее стабильной оказалось пыльца у растений в F_2 и

F_3 комбинации var. el salvador x *G. raimondii*. Оно довольно высокая и составила – $80,23 - 81,91$ %.

Нами проведен анализ жизнеспособности пыльцы гибридов второго поколения при естественном освещении, полученных при скрещивании видов с короткодневной реакцией фотонейтральных и фоточувствительных.

Так, как фотопериодическая реакция является одним из важнейших адаптивных свойств определяющих растений, их распространенность и продуктивность. Однако, характер исследования реакция изучен недостаточно. Адаптационная защита, в форме высокой фотопериодической чувствительности, обеспечивая выживание растений на определенном этапе эволюционного развития, а наступающее время стала регрессивным явлением, так как препятствует широкому распространению сортов, создаваемых для возделывания в различных агроэкологических зонах.

В целом фотопериодическая реакция как приспособительное свойство растения наследственно обусловлено, то есть является генетически контролируемым признаком. Исходя из этих положений, в работе рассматриваются результаты исследования адаптивности полигеномных гибридов их фенотипическое проявление фотопериодической реакции, хромосомный состав которых представлен геномами $AD_1 \times D_5 \times AD_2$, $AD_1 \times D_{2-2} \times AD_2$, $AD_1 \times D_5$, $AD_1 \times D_{2-1}$, $AD_1 \times D_{2-2}$, $AD_1 \times D_4$ хлопчатника при естественном (14-15) и в 10-ти часовом освещении. В условиях 10-ти часового освещения все гибриды плодоносят, причем некоторые из них одновременно с обоим родителями (F_2 var. el salvador x *G. armourianum*, F_2 var. marie galante x *G. harknessii*, F_2 (var. el salvador x *G. raimondii*) а в условиях естественного освещения на все гибриды плодоносят даже при скрещивании амфидиплоидных гексаплоидов с промышленными сортами (табл.).

В комбинации F_2 var. marie galante x *G. harknessii* нами отмечено наименьшее количество плодоносящих растений – 7,6 %. Жизнеспособность пыльцы межвидовых гибридов F_2 , при естественном освещении сильно варьирует и зависит от фоточувствительности скрещиваемых видов. Наиболее высокой оказалось жизнеспособность пыльцы в F_2 var. el salvador x *G. raimondii* и F_2 var. el salvador x *G. armourianum* у основной массы растений пыльцы находилась в классах 71-90 %, а низкой у F_2 var. marie galante x *G. harknessii* ($26,3 \pm 4,7$ %), var. marie galante x *G. harknessii* x C-6037 ($46,92 \pm 3,7$ %), из-за высокой фотопериодической чувствительности var. marie galante. В вариантах var. el salvador x *G. raimondii* x Ташкент-1, Ташкент-1 x *G. armourianum* x C-6037 по



жизнеспособности пыльцы наблюдается большое разнообразие: наибольший процент растений с жизнеспособностью пыльцы от 71 до 90 %. По видимому, высокая жизнеспособность пыльцы F_2 передается от родительской формы Ташкент-1, обладающего короткодневной реакцией.

ВЫВОДЫ

Низкая жизнеспособность пыльцы *G. tricuspidatum* var. *bogota* x *G. aridum* (19,65), при сравнении скрещиваний выше перечисленных комбинации АДхД свидетельствует о филогенетической отдаленности *G. aridum* от *G. tricuspidatum*, чем виды *G. armourianum*, *G. harknessii*, *G. raimondii*.

Наиболее близком видом к *G. tricuspidatum* является *G. raimondii* так, как жизнеспособность пыльцы гибридов наиболее стабильна как при 10-ти часовом, так и при естественном освещении.

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PROBLEMS CONFRONTING RELIGIOUS TOLERANCE AND NATIONAL SELF-AWARENESS

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ANNOTATION

This paper analyzes the conditions necessary for religious tolerance and national self-awareness, as well as problems that contradict tolerance.

KEYWORDS. *national self-awareness, religious tolerance, fanaticism, missionary.*

DISCUSSION

While building a democratic society in Uzbekistan, the conditions necessary for religious tolerance and national self-awareness are also taken into account along with the justification for democratic principles. This problem, especially in a multinational, multi-confessional country, dictates its own approach. The notion of "tolerance" of researchers is contrary to "fanaticism", is an expression of the state of recognition of democratic consciousness, thought and views through the spiritual world of different people. While fanaticism, on the contrary, cannot accept democratic values, consciousness and contemplation[1], we agree. Taking it into account is important in the philosophy of religion.

Tolerance at all stages of the evolution of human society becomes a social phenomenon of great importance. Modern realities also show that tolerance is one of the main conditions for ensuring the positive development of international, inter-confessional and cultural relations. In this sense, philosophical research on issues related to tolerance plays an important scientific and practical role. After all, as noted in the declaration of principles of tolerance: "without tolerance there will be no peace, without peace there will be no progress and democracy"[2]. The correctness of these ideas is confirmed by the adoption of a special resolution called "Enlightenment and religious tolerance" at the plenary session of the UN General Assembly.

This initiative is in line with the strategy of action on further development of Uzbekistan in the direction of "ensuring security, harmony of the nation

and religious tolerance, as well as a deeply thought-out, mutually beneficial and practical foreign policy", and it is gratifying that the world community supports it as an initiative of Uzbekistan's enlightenment and religious tolerance.

Religious tolerance is, above all, an important condition for social stability and mutual co-existence of representatives of different religions. A number of definitions have been given by scientists on religious tolerance. HeAccording to kushaev, "religious tolerance is one of the important forms of social tolerance, manifested in a person's attitude to representatives of other religions based on respect, attention, tolerance and benevolence"[3]. Professor I.Khojamurodov believes that "religious tolerance is a method of tolerance, tolerance, tolerance and mutual discussion of views on Man, society and the world"[4]. The ideas expressed with a sense of religious tolerance serve to strengthen the bonds of respect, trust, international cooperation and solidarity, peace and harmony of the country and the sustainable development of the world community in a special resolution called "Enlightenment and religious tolerance" adopted at the plenary session of the UN General Assembly.

Today, Uzbekistan is becoming an example not only of the CIS countries, but also of the world in terms of religious tolerance and reconciliation. For example, if there were 119 religious organizations (89 Islamic and non-Islamic) in our republic in 1990, it reached 179 units (146 Islamic and 33 non-Islamic) in 1991, and by 2007, their number reached 2227 units (2046 Islamic, 181 non-Islamic) [5]. In Uzbekistan, special attention is paid to the wider



introduction of Islamic Enlightenment and religious tolerance into life. It is also not surprising that the decree of the president of the Republic of Uzbekistan "on measures to radically improve the activities of the religious-educational sphere" was established as one of the priority directions of radical improvement of the activities of the religious-educational sphere: "to further increase the sense of tolerance, mutual respect, kindness, peace and harmony in society".

In the years of independence, along with a number of conferences in honor of famous Muslim theologian scholars and scholars in Uzbekistan, a number of Republican and international conferences dedicated to the dates of the Christian religion, the connection of Islam with other religions were held (in 1995 a Christian-Muslim Conference on the theme "to live together under one sky" was held; in celebrated the 100th anniversary of the Lutheran Church; In 2004, an international conference dedicated to the problems of mutual relations between the state, society and religion was held in Samarkand with the active participation of the Konrad Adenauer Foundation in Central Asia in the Office of the Fridrikh Naumann Foundation in Uzbekistan). At present, human rights together with the committee on religious affairs under the Cabinet of Ministers of the Republic of Uzbekistan, the national relations under the Cabinet of Ministers of the Republic of Uzbekistan and friendly relations with foreign countries, the center for studying public opinion "Social thought" and the International Foundations, has been conducting seminars called "religion dialogue – the basis of stability" almost.

In his speech at the 72nd session of the UN General Assembly, President of the Republic of Uzbekistan Shavkat Mirziyoyev came out with a proposal to adopt a special resolution called "Enlightenment and religious tolerance" and noted that this resolution was aimed at finding tolerance and mutual respect, protecting religious freedom and promoting their non-discrimination[6]. the resolution was adopted by the December 12, 2018 at the plenary session of the UN General Assembly adopted a special resolution called "Enlightenment and religious tolerance". This draft document, developed by Uzbekistan, was supported by all UN member states. At the same time, the world community recognizes the vital results of Uzbekistan's initiative of enlightenment and religious tolerance.

Indeed, Islam is a religion of tolerance. In it, the people of Science and science are respected, no matter what religion they represent. From the people of Islam to the people of the book, that is, to the representatives of other religions, they demanded to be treated kindly and beautifully: "you fight only in a good manner with others who have wronged the people of the book, and say to them, we believe in what has been revealed to us, our God and your God are one.

In fact, the co-existence of Muslims, Christians and representatives of other religions on the ground of Uzbekistan is a rare example of religious-spiritual harmony and the best example of tolerance for representatives of all religions. 80 percent of the population of our country was Uzbek, 4,9 percent were Tajik, 3,8 percent were Russian, 3,6 percent were Kazakh. In total, among more than 130 nationalities and representatives of elat there are also those who adhere to the religions of Christianity, Judaism and Buddhism in addition to Islam.

In such circumstances, it will be necessary to pay attention to the fact that there are also some problems that contradict religious tolerance and national self-awareness. This is evident, first of all, in the direction of the missionary. Missionary is one of the main reasons that threaten religious tolerance.

"Missionary" is originally derived from the Latin verb *missio*, meaning "send", "task", while the missionary means "task-maker" [8]. In the Encyclopedia of Islam, the missionary (from the word *mission*) is defined as the promotion of one religion among the peoples who follow one religion, another. Missionary, in principle, is inherent in Christianity. Appeared in the IV century. Proselyt is a person who has renounced his religion and passed on to another religion. Missionaries are trying to mislead our native Muslim brothers, especially our young ones, by interpreting the religion of Islam, the Holy Quran, our blessed hadiths in accordance with their goals and glorifying Christianity. The illegal activities of missionaries bring about such negative phenomena as conflicts of religion and nationality, the escalation of disagreements in the families of representatives of the indigenous nation, the formation of negative emotions in the representatives of other religions in the population belonging to the Muslim religion in the neighborhoods.

It is known that Muslims of Central Asia, including our country, have been following the Imam Khanafi sect since the XV century, which is distinguished by tolerance among sects in matters of *e'tiqod* and *fiqh*. The reason for the spread of this sect to the world is its solidarity with the people and traditions and values of the peoples who are doing it. Also, this sect "with its moderation, expression of the true essence and essence of Islam, has been an important basis in the mutual solidarity of Muslims of our country for centuries, in the elimination of contradictions that arise in the easy solution of various legal problems" [9].

As the president of the Republic of Uzbekistan Shavkat Mirziyoyev noted in his appeal to the Oliy Majlis, "it is no secret to anyone that today there is interest and aspiration in the world in relation to the religion of Islam. The main reason for this is that thoughtful ideas and ideas that deeply reveal the true human essence of Islam, which encourage all people to unite in a way of kindness,



kindness and solidarity, have not lost their dignity and importance today."

Secondly, another aspect of the existing problem can be seen in religious fundamentalism and extremism. This is a situation associated with "overreaction in religion". It can be said that this passes through the correlation between tradition and modernity. He said that "it is a relatively easy job to recognize, be careful of and guide the "tafritis" who are deficient in religion, who are hard on him, who speak Arabic. But to recognize those who are the opposite of them, who are called by such names as "excessive in religion", "strict in religion", to be careful of them and to establish them is an incredibly important work."

Based on the above opinion, it can be said that any appearance of "overreaction in religion" can cause instability in society. In our opinion, it is possible that the development of religious sciences will not be possible, even as a consequence of the dilettent relationship to the foundations of religion, if such ill deeds as religious fanaticism and fundamentalism are not formed for any purpose, but will become a serious illusion in the life of society. These negative vices exert their influence on all spheres of society: "...religion can serve as a dysfunction in dezintegration and known relationships, for example, a religion itself can perform both a positive and a negative function depending on what context it operates on, depending on its social consequences. The more functional a religion itself is in different social situations, the more dysfunctional it can be. If religion is stabilizing in one condition, it is ixtilof and turbulence in the other"[10]. From this point of view, religious fundamentalism and holocaust play a decisive role in the negative functional state, while religious tolerance and rationality play a key role in the positive implementation of their functions in society. And the negative functional state is the appearance of "excesses in religion", which pose a serious threat to the stability of society. Therefore, the prevention of any manifestations of "religious overreaction" is one of the important tasks of today. Because, during the era of the totalitarian system of fanaticism and fundamentalism, Central Asia was not only doomed to economic and political collapse, but also to undermine the system of traditional schools, which were formed for several centuries, both spiritual and educational. "This has put a point to the positive development of such forms of worldview as attitude to the development of science, religion and belief, national self-interest and self-awareness."

The prevention of this negative malady, religion, religious heritage, including the fact that Islam has nothing to do with fanaticism and fundamentalism, on the contrary, as a religion of Islamic Knowledge, is an important ideological tool in the fight against ignorance and ignorance to our

citizens, including young people, is one of the urgent tasks of today. In this regard, more than 83 percent of the world's population lives in the regions and states where religion, conscience are degraded, and the threat of religious extremism, fundamentalism and terrorism in these states poses a serious threat to stability because of the various religions living in these territories, among the population seeking tolerance and mutual respect, which was put forward in the, we believe that carrying out practical work on the broad promotion and introduction of ideas aimed at preventing their discrimination is one of the urgent tasks before the world community.

In 2017-2021 years in our country, in the 2.4 paragraph of the strategy of actions for the further development of the Republic of Uzbekistan: "implementation of organizational and practical measures to combat religious extremism and terrorism, other forms of organized crime" is defined as an urgent task".

Our research has shown that in recent years, threats of religious extremism and terrorism have been increasing in the world. Harmful ideas that contradict the national nature of our people, traditions, morals and values, lifestyles negatively affect the consciousness of our youth. Extremist organizations and terrorism mask religion and using religion for merciless purposes in the struggle for power poses a serious threat to humanity, its present and future prospects. "The threats of terrorism in the world, especially in recent years, are evidence of the fact that the method of combating them, mainly through the use of force, does not justify itself," the president said in his speech at the 72nd session of the UN General Assembly... I believe that the roots of international terrorism and extremism constitute ignorance and intolerance along with other factors. In this regard, it is the most important task to formulate and educate people, first of all, the consciousness of young people on the basis of enlightenment"[11].

Thirdly, the problem in the direction is connected with attempts to equate Islam with "false Islamic ideas", to put Islam and democracy against each other, to bring about disagreements between different religions.

Enlightenment and religious tolerance are rooted in any manifestation of ignorance, preventing any threats and risks. As the Ambassador Extraordinary and Plenipotentiary of the Arab Republic of Egypt to Uzbekistan fairly acknowledged, "the head of Uzbekistan deeply feels the threats, risks and problems facing the international community. And not giving enough assessment to the fact that religious tolerance is important leads to dependence, loss in different points of the world. Culturelarar communication allows you to avoid many problems, protect innocent people." These thoughts are also supported by the bishop of the Roman Catholic Church in Uzbekistan,



Eji Masulevich, who writes: "at the initiative of President Shavkat Mirziyoyev, representatives of different cultures, peoples and religions live in peace and harmony, embodying the experience of Uzbekistan. This resolution not only promotes tolerance in certain countries, but also encourages the entire population of the planet to live with the idea of Enlightenment against ignorance. The document requires cooperation at the regional and global levels. We see how religious conflicts arise due to differences in culture in different parts of the world. Europe and the United States are as deep in its roots as the coming problems of migration, the solution of the situation in Afghanistan and Syria." Representatives of various religions and confessions living in different countries of the world are also involved in these ideas and support the initiative of Uzbekistan for enlightenment and tolerance.

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EXTRALINGUISTIC SIGNS OF THE OFFICIAL STYLE

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ANNOTATION

In the article, the extralinguistic signs of the official style are illuminated by the example of official work documents and compared with the extralinguistic signs of the scientific style.

KEYWORDS: style, formal style, formal work documentation, extralinguistic characterization, scientific style, logical consistency.

DISCUSSION

The official method serves mainly for the sphere of legal-administrative relations. It regulates relations between departments, people, States.

In scientific dictionaries, the style (arabic-order, order-method; method, year; form) means the following:

1. The specific choice of language units, combination of which, depending on the specific task performance of the elements of the language, is determined, and etc. systems characterized by language styles. Functional styles;

2. A set of methods in which the use of language tools is characteristic for a particular writer, work, genre. A.Qahhor style. Feletons style;

3. The choice (selection) of language means on the basis of an express-methodical sign; the structure of speech with the use of words and in accordance with syntactic norms. Biblical style. Official style. Scientific method[1, 299].

Each person uses a more conversational style in everyday life, but in addition to the conversational style, he must also know the official manner of conduct. Because everyone who is connected with social life has to write a farmer, a teacher, a driver, an application, a receipt or an interpreter, even a style of writing an invitation, and correctly writing it means attention, respect to the person or persons invited.

There are two forms of formal style:

1. Oral form of the official style.

2. Written form of the official style.

The official (Arabic – administrative, administration-related) style has the following appearance:

1. Pertaining to government, state or any organization, as defined. Official representative.

2. Published, issued, distributed by government, government agencies or any organization. Official information. Official information.

3. Legally approved, formalized. Official documents. Official organization.

4. It is inherent in the language of treatment, correspondence and documents carried out by the state; letterhead. Official style[1, 353].

Extralinguistic factors (Latin extra – external, linguistique – linguistic). Conditions for the existence of an object that affects the development of language. Such extralinguistic conditions in the development of language include, first of all, socio-political influences[2, 115].

Scientists of Uzbek linguists M.Mukarramov as an extralinguistic character goes through the following: "Extralinguistics include the purpose and function of communication, the content of communication, the circle of communication, the form of speech (written or oral speech, dialogic or monological speech)"[3, 11]. He also adds to the range of extralinguistic characters phenomena such as social interaction and style levels: "Extralinguistic characters include phenomena such as social interaction, purpose and function of communication, and style levels"[3, 16].

The purpose and function of the official style is from the official contact: the informant and the recipient, which are classified in two cases:

In the first classification, an informant is a leader, an information receiver is an employee. From official work documents to incoming work documents of this group include such documents as:



order, instruction, order. The form of communication is expressed both orally and in writing.

In the second classification, an employee is an informant, a leader is a recipient of information, and such official work documents include information – information documents of the group: application, statement, receipt, explanatory letter, reference and similar work documents. The form of communication in In this is mainly expressed in writing.

The way of expressing an opinion in the official style is also different. If we compare this to the scientific style, we can see both its general aspects and its different aspects.

The levels of the scientific style include such dimensions as accuracy, objective, logic consistency, neutrality, shortness and completeness, which are often seen in linguistic signs of the scientific text[3, 17].

In the formal style, too, there are extralinguistic signs, such as scientific style-specific accuracy, logical consistency, brevity and completeness, and in the in this above M.Mukarramov is considered to be an extralinguistic sign of the official style, and not those that fall into the style levels that the teacher emphasizes. Because if we look at the stylistic levels, then the unit of expression should exist, for example, the unit of the phonetic level is phoneme, the unit of the lexical level, and the unit of the syntactic level is a word combination and a sentence. There is no Unit representing in signs such as accuracy, logical consistency, neutrality, shortness and completeness.

Accuracy is the main sign of official texts. Because without accurate information, information cannot be given.

ATTORNEY

I, Sobir Ahmedov, express my confidence that my brother Sardor Ahmedov (who has a passport with 3365452 digits in the AB Series) will receive my salary from the cashier of the Palace of Culture, written for September 2020-th year.

September7, 2020

(signature)

S.Ahmedov

I confirm the signature of S.Ahmedov.

Head of the Personnel Department of the palace of culture

(signature)

S.Komilov

(date)

(seal)

Logical coherence is the ability of thought to relate logically to each other, in a coherent statement, for the purpose of Special specific words and combinations (- sh (- ish) that create coherence in the

formal style,- sh (- ish),“...about the course of preparation”, “...on the execution of the decision”, “...in order to help”, “...I ask you to accept”) is reflected in the presence.

REFERENCE

Farmer farm the seal of the rectangle.

Region, District Name of farmer farm.

Reference number and the date of issue. Murod Tukhtasinovich Olimov

Since 2018 year in the Fergana district

Since 2018 year he has been working as a senior accountant at the farm “Baraka” in Fergana district.

A certificate was issued to indicate the District Social Security Department.

Chairman of the management of the farm (signature)

O.Rahimov

Secretary

(signature)

R.Kamolov

(seal)

Brevity is one of the signs inherent in the official style. The official statement does not require a plus image, an explanation. Therefore, the official statement does not include such illustrative means as

analogy, adjectives, animation, exaggeration for the image of things and events.

TELEGRAMMA

FERGANA 12 KATTABOG‘ 18

TO SALIMOV ON THE TWENTY-SIXTH OF DECEMBER I WILL FLY WITH 123 FLIGHTS MEET SAYYORA 100187 Toshkent 187 Sadaf street 4-house



Completeness can be seen in the syntactic signs of official speech. In this speech, to give accurate information, pieces such as a predicate, complement, case, cut are not dropped. Incomplete sentences in the official style do not meet.

“When compiling the text of documents, it is necessary to use more than stagnant, stereotyped word combinations. Because molded, according to the data of word systems, phrases, engineering psychology with a single permanent form, are perceived 8-10 times faster than other word combinations. On top of this, molded word combinations allow to significantly speed up the processes of preparation and use of documents[5, 16]. Therefore, in the official work documents in the

Uzbek language, almost molded units are used. For example, in the command “...sum with a monthly salary ...assign to the position”, “...at their own discretion ...molded structures can be applied, such as “let him be dismissed”.

Molding is also one of the main signs of extralinguistics. One of the most commonly used types of molded business documents in the official style is the application. Applications are an official document that is written in the context of a request, proposal or complaint to a particular institution or on behalf of an official. The location of the necessary parts of the application, as a rule, is given in the following form:

Where or to whom

*Application form the position of the writer's residence, full name
application*

The text of the application (contents)

Application (if necessary)

Date (year, day, month)

signature

N.MN. and surname [5, 119].

Linguist scientist Q.Omonov noted that “the most important aspect that indicates the character of the official text is its orientation to practice, that is, it is aimed at fulfilling the previously envisaged goal. Therefore, it comes to our eyes as a completed message that has its own content and devices as a completed system”[4, 21]. In fact, the text on each official style serves the intended specific purpose and is widely used in our lives as an excellent, accurate source.

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ISSUES OF ARTISTIC AND LITERARY INFLUENCE OF FAIRY-TALE POEMS

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ANNOTATION

The article analyzes fairy-tale poems in Uzbek children's literature in terms of form and content, genre. The problems of the impact of World Children's literature on Uzbek children's literature S.Marshak's work is illustrated in the example.

KEYWORDS: lyrical work, prose poem, fairy tale, household fairy tale, figurative image, lyrical poem, thematic composition, hereditary parable.

DISCUSSION

It is of particular importance that the formative-meaningful updates of children's literature and the study of the poetic skills of children's poets are checked from the point of view of today's era. Introduction to the creative laboratory of Tursunboy Adashboev in this regard, its individual style, lighting of peculiarities in the form-meaningful research is an important factor in the development of children's literature. One of the peculiarities of T.Adashboev's creativity is that his poems to some extent reflect reality and have such a plot construction as prose works. We can see the harmonious state of the lyrical and epic type in the fairy-tale poems of the poet. It is known that in the lyrical work, the Being finds its expression behind the inner world of the creator. In the epic work, the image of this world is turned into a shell of objectivity, the lyric takes the tone of the author's personal experiences [1,189]. Hence, prose poetry (Russian kaska: "Stixotvorenie v proze") is a lyrical work written on a prose track; in Uzbek literature and literary studies it is also referred to by such terms as sochma, mansur poetry, mansura. Prose poetry differs from the lyrical poem itself in such a way that the lyrical hero describes his feelings and experiences, usually having a small size, with such an aspect as emotionality, only from him the speech organization. If the lyrical poem has a form of speech arranged on the basis of a certain measure, then the prose poem is not measured rhythmically. Since both of them belong to the lyric language, there is also a need to use the term prose poetry because of the variety in which the term of the poem is used (the prose in the composition of the poem denotes the belonging to the genre – lyric, and the lyrical poem denotes the form of speech) [2,166]. So, when epic

features are combined with aspects such as emotionality, lyrical Hero emotions, formal updates are revealed, and this is manifested through poetic storytelling, fairy-tale poems. Such a new poetic form and search for meaning can be seen on the example of T.Adashboev's work. The fairy-tale poem "Adolatli qozi" is written in a fairy-tale genre and is expressed in a theoretical way. In children's literature, "fairy tale" is considered an active genre, because it is considered a work that children like and listen to and follow as an example to them. A fairy tale is a small genre of folk oral creativity, there are also literary fairy tales created by the authors. They are called literary fairy tales. The fairy-tale poem "Adolatli qozi" is about animals, has a figurative character, has a plot construction, is given on the basis of allegorical images (lion, fox, heron, stick, rooster, chicken). In the fairy tale, the theme of justice is expressed, in the image of the lion, the qashqir is unfair, in the image of the just judge, in the image of the fox is a cunning, enterprising, thorough in his work, in the image of the laganbardor, in the image of the rooster and chicken is an image of the victim. The poet, using traditional images, fairly expresses the new image – "Taylon". The meaning of the fairy tale is that the fox always keeps the cock and chickens in the dog and takes away the chicks, the victims who suffer from it will make a lion worthy of being a judge, the judge will order them to quickly catch the fox, when the fox is brought and interrogated, the judge of the feather pillows brought:

Шодмиз сиздек тақсирнинг

Ярасак хизматига.

Бизлар ўчмиз товўқнинг-

Ўштигамас патиға. [3, 166].



The Fox praises the "gift" to the soul, saying that she is mad. The gift will please the judge very much, the fox will hide his guilt with these words and show it as if he is serving the goose. Par pillows that make a line to the judge enter the soul, and the culprit will be the cock and the chickens, over time, the qashqir will be elected, so that the fox will continue to do its job, the chickens will make a pile, he will also order to catch the fox. The fox also says what he said to the lion, and the par pillow will make a gift, again the soul will survive. Elected to the judge Taylon, the fox is made of a cock and the chickens again make a complaint, the fox does the previous trick, but the Taygan does not fly into the fox's trick and says:

-Менга қара шум, шайтон
Бақириб берди қози,
Арқоннинг узунни соз,
Яхшидир гапнинг ози.
Тоzi, Бургут, Лочинни
Тайғон овга шайлади.
Тулки зоти учраса
Тутиб сомон тикинглр.

A fair judgment is issued by Taylon and gives a decree to the clean to destroy the fox and fox cunning for a lifetime. At the end of the fairy tale, "Енгиб чиқар ниҳоят, ҳақиқат – у адолат", concludes. The fairy tale has rhythm, rhyme and artistic arts, ibratli proverbs were also used "Арқоннинг узунни соз,/ Яхшидир гапнинг ози," - This is the artistic art of "hereditary parable" (in the poem to bring the proverb, the matal, and the word of wisdom for a certain poetic purpose) in literary science. The type of plot is chronologically, the reality is described one after another in a way peculiar to the children's worldview and children's speech. The poet made the conclusion that at the end of the fairy tale there will be an example of the most important children, of educational significance, that is, the amulet will certainly find punishment for the deeds of the cunning selfish. So, N.Novinkov says by taste, "nothing affects the children's peppermint heart as an eater." The proverbs and figurative images presented in the fairy tale also serve as an example, it can be said that the lion, the herdsman will never be friends with someone, will flank to the side for his own benefit, some animals (dog, Taylon...) as always, is regarded as a friend, a just creature and is expressed in the same way in literature. And the fact that the name of animals is quoted as a figurative image, given in capital letters, we see that it is actually expressed in humans in the meaning of the tag.

The influence of world literature on the creation of fairy-tale poems in the work of Tursun Adashboev in a specific way is great. In the renewal of the content and form of his poetry, the creative influence of traditions inherent in Western literature

was important [3,116]. The poet enriched children's literature not only by writing poems, but also by translating from literature of different nationalities. In particular, he skillfully translated the poetic fairy tales of the Russian creator Samuel Marshak. On the basis of his translations, he created as above specific "fairy-tale poems". As an example, we will consider the translation of Samuel Marshak's work "A fairy tale about a stupid hunter", the fairy tale is built on the basis of a poetic method, reality, has a didactic significance. In form, it consists of 24 paragraphs, each paragraph consists of 4 paragraphs and begins with the following lines:

Бир қуш тўрга илинди,
Жажжи — мушдаин.
Овчи унга таъкидлар:
— Ўлиминг тайин.

As we can see, this fairy-tale poem belongs to a group of household fairy tales, built on the basis of the dialogue of the hunter and the bird (Dialogue speech). The pair couplet are mutual rhymes, the language is simple and fluent, the skill of using words is suitable for children's speech, that is, they are given words that they understand, and these words make up two or three in each couplet. Such brevity and clarity are considered an important demand of children's poetry. The plot of the poem is based on chronological plot.

In literature, the image of a hunter is always interpreted as an image without fuss, causing harm to living things. In this fairy-tale poem, such a ferocious hunter was also put against the image of a fowl hunter, who left a dog in a fist, but a bird of fire. In the early, the bird was described as "a wretch, a fist", which in a young reader evokes a feeling of compassion, pity for him, but when we read the next paragraphs of the poem, it becomes clear that this wretch is a fist, that is, a smart, steeper, even if defenseless, that is, a "tutor" in words with a creative language. the fact that the Hunter surprise and the swan are "lecturers" is presented in the verses of the sung couplets in the proposal "to say three tips". A simple hunter will give sweet thoughts and let him go, wishing him a "white path".

And the three tips of the bird will be as follows. First advice:

Бой берган нарсанга / Асло ачинма.
Тасдиқлар қушинг сўзин:/ — Бой берган
омад

Although the advice given by the poet through the speech of the lyric - hero (bird) is said to look at the hunter, all people are united. As the proverb says, a strict sentence is expressed, and after each clue its proof is given, the status of the Hunter in couplet is brightly expressed (confirmations are the so — called



words of the bird:/ - Rich gave luck). The next three couplet, however, express the need to constantly be thankful for the fact that with a comforting exhortation-that is, with regret, time does not go back. The second and third advice is to continue the first of the furs:

Ва ниҳоят, жўн сўзга,/ Алданиб қолма.
Мўъжиза бу — афсона,/ Сира ишонма.

The word “Jun suz”-is in the sense of a good, sweet word, and such words are always expressed in the fact that it is easy to be deceived by it that it will not be true. And the last advice for children is completely different in character. Miracle this-mif / do not believe in the series. Children are distinguished by a wide world of imagination, believing in a miracle, looking for it from everything and situation. And the poet denies the miracle, in this way he points out to the young reader not to be a believer and a constant. In the Fourteenth and fifteenth paragraph of the fairy – tale poem, the culmination part of the fairy tale is given, that is, the fledgling hunter says, "you let me go away, there was a treasure full of blood – two times larger than an egg," - believe him. After all this, the hunter regrets and asks the fledgling to return, offering him a royal life. The dwarf will soon forget about the valuable advice of the hare.

Bird responds:
— Тентаксан роса.
Чиқармадинг гапимдан,
Ҳеч бир хулоса.

The poet will prove in subsequent paragraphs the idea of each quoted iba. The pair of couplet rhymed among themselves. This fairy tale poem consists of a thesis, an antithesis and a synthesis part, the synthesis, that is, the summary part is not completely completed, it is referred to the attention of the bookstore. The poem is not only characteristic of a young reader, but also has a didactic significance for adults. The main task of the fairy tale is its didactic feature, Samuel Marshak was able to absorb this important feature in his work, and Tursun Adashboev skillfully translated it, giving the poet of thoughts he wanted to say, and also absorbed the peculiarities of the famous creators of world children's literature into his works. In fairy-tale poems of these creators, the feeling inherent in the lyrical type, rather than the expression of soul experiences, reality-epicism prevailed, educational significance was put forward.

Well, poems written in a fairy-tale and narrative way, written in a poetic way, contribute greatly to the development of formative meaning in the time of ensuring the poetic perfection of children's literature. The young reader will be able to distinguish between the characteristics of prose and poetry, and the harmony will be better preserved in

the mind, and the shortness, clarity, compactness will be closer to the book. Also, part of the didactic conclusion plays an important spiritual and educational role.

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LITERATURE LESSON-THE FIRST STEP TO ARTISTIC ANALYSIS

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ANNOTATION

The article discusses the types of artistic analysis, the development of art analysis skills in schoolchildren on the example of Utkir Hoshimov's story "Urushning sunggi qurboni"

KEYWORDS: artistic analysis, artistic detail, textual analysis, symbolic analysis, problem analysis, work language, artistic idea.

DISCUSSION

The education of the reader as the owner of noble deeds, the perfection of spiritual feelings, human qualities in young people, forms the basis of the so-called "Humanities", the science of literary literature, the science of literary studies. The role of literature lessons in bringing to the magical world of the word, arousing affection for artistic literature, cannot be overemphasized.

It is known that in school textbooks the most remarkable of the most of our national literature and samples of world literature, the readers of the bookstores are invited to participate in the competition. If in the lessons of literature one simply "gets acquainted" with these works, then the intended goal will not be achieved if its original core remains intact. This is the same as not feeling the wildest in the meadow, the wildest of flowers, the wildest of which is collected, with a priceless stay from the edge of the moor. Analysis of works of art in school literature lessons is the first step towards enjoying these blessings. If the analysis of the work is carried out correctly, the reader will remain a lifelong lover of literature; the piece will certainly find and read the continuation of the same work, to which the reference was made; will also be interested in other works of the creator and become his fan, in general, he will realize that fiction is the mirror of life.

The program of literature of the 6th class included the story "Urushning sunggi qurboni" by our famous writer Utkir Hoshimov. First of all, it is necessary to carefully read this work on the topic of the consequences of the Second World War, the

hardships that our people brought to their heads, each sentence, each image object.

"Because a fully-mastered artistic image evokes a positive thought in a student or student, a feeling that has moved to the heart is able to provoke a feeling not only in another." Entering into the analysis of the story, the teacher should pay attention to four important aspects, so that the students are also oriented. These are: the language of the work, the character of the heroes, the artistic interpretation(details)and the role of the name of the work in the expression of an artistic idea. Our teacher Qozoqboy Yuldashev three methods that are more common in educational experience (1.Textual analysis. 2.Alligator analysis. 3.Problem analysis), but do not understand them in the style of a direction that denies each other. In fact, the use of all three methods of analysis in the analysis of the story "the last victim of the war" gives a good effect in the complete assimilation of the work.

In the process of textual analysis, first of all, we follow the author and "move" into the courtyard of the story hero Shoikrom. Why does Shoikrom sit on the edge of sandals?" Despite the fact that already spring has come and the days have warmed up, " why did not the sandal, which is considered the main item of winter, be removed? What worries these families, What are they so busy with, that "no one will think" in the circle of the removal of sandals? A reader who has fully mastered the story will certainly be able to answer enough of these questions. We will focus on the continuation of the story and determine from the readers what items, things - items give the hero's life, everyday life, the spirit of the era. Clever reader finds



sentences without difficulty: burlap beds, dry tableware with molasses stains, ceramic plate emptied from manure, wooden spoon with pent burns, clammy cursing with the smell of sweat, a uniform chit shirt of color, carp bread, a clap. (In this regard, a comparison with today will be a factor in the development of a sense of gratitude in readers). The teacher said that these are so-called artistic details, that the writer used them as an auxiliary image in increasing his artistic intention, but again the following can be added. The wind in the story and the wildly noisy branches of the walnut, kissed wall also served as an artistic detail, that is, from the anxiety in the psyche of the hero of the story Shoikrom, from the instigation of a sense of hatred, from the theft of modern linen (material need, calling the only brother let alone a cup of milk due to the belief that "kissing a check" (consciously hit the hand in the murder) is indicative. Even the cable of the electric current, which was a means of murder, served to open an artistic idea. "Once Upon a time, before the war, he would carry these wires to the jungles, lighting the courtyard of the people with a torch." So, when there was no war, he served the days of joy of the people, and not the terrible event, as the subject is today. In this place it is also worth paying attention to the fact that the profession of our hero is a montory. It is also not surprising that the writer describes the murder carried out by an electric current.

Analysis of the Logos is carried out by the images of four heroes in the story: Shoikrom, mother - Umri aunt, wife-Khadija, brother-Shonemat. In the analysis of these heroes of the students it is worthwhile to allow them to freely think, to give an individual assessment. Because depending on the behavior of the images, words, someone likes them, and someone does not. Ex: those who justify Khadija, which is also noticeable from the redness of the yellowish face, when lying, can also be found. Because he has to do it. Now her husband's morning share of food, which she did not take away from her mother-Umri aunt. The impoverishment made him that shirt. Even his "soot" is in favor of the family: "he gives a handful of strawberries a cup of oatmeal." Or a Shoikrom that has not received a message from a sick brother for ten days, too, cannot be considered a sinner: "go out in the morning and return at midnight." In the textile combine "the dog gets tired".

Aunt Umri, who stole a strawberry from her second son's house to "save money for the children" to save her dying child, and who eventually died, three the images of Shone'mat, who has not got out of bed for months and is not tired of crying, also play a very important role in the play.

The language of the work is also specific. Our beloved writer also skillfully used folk proverbs, phrases and nomads, colloquial speech in the people's language. Sentences such as "To'qqiz kechada jin

tekkan", "kambag'alni ekkani unmaydi, bolasi ko'payadi", "urushning qora qanoti", "Gitlerning to'ng'iz qo'pishi", "choy o'lib qopti", "sigir suti otliqqa yo'q", "suv qalqisa loyqasi yuqoriga chiqadi", "egasi ming poylasin, o'g'ri - bir", "uchta jo'ja bilan jon hovuchlab", "tishida tishlab yurgan g'unajini" have increased the charm of the language of the work. Also in the story, the image of nature is skillfully drawn in harmony with the psyche of the hero. At the beginning of the work, from where the wind came. If the image of "the walnut branches at the foot of the yard put a buzzard" is given, then during the narration of the events the hero is given the image of "the hump in his heart", and in this case the harmony "the wind will go up increasingly, the walnut leaves in the yard will be noisy, the branches will be given the image.

A third method of analysis is problem analysis, which focuses on the title of the story. Why does the teacher ask the students, "Is the story called The Last Victim of the War?", "Is the World of Life the Only Victim in the Story?", "What other works do you know about War and the War Period? Have you come across any of the characters in this story?", "In 5th grade, you came across G.Gulam's story "Mening ugrigina bolam". How do you react to the image of a thief stealing Shoikrom's cow, Ilhom's samovar's goat, and even the grapes on the vine and the strawberries in the garden?" by asking questions such as, inviting them to a broader observation, listening to their opinions, summarizing, and concluding the discussion.

As you know, in the story, Utkir Hoshimov took the life of our people behind the front as a subject to the work. While covering the topic, it also covers small issues that are subject to the topic. In particular, the name of the work is also not known as "the last victim of the war". The Second World War, among the many nations, caused unprecedented suffering to the head of our people, lost millions of our sons and fathers, and caused the population to suffer a crisis of their standard of living. On this subject, a lot of works have been written in our literature of different genres, motion picture. The writer small has revealed in this story such an important topic. Correct, in one place in the story, the landscape of the war, the image of a warrior killed by an enemy bullet is not expressed. But thousands and millions of people, like Shoikrom, glory, auntie of life, inspiration samovar, who live a miserable lifestyle behind the front, are also victims of the war, the endless suffering it has inflicted. It is also worth paying attention to the word "last" in the title. At the end of the story, those who return to follow Umri aunt's last journey say a very important message in the process of a mutual conversation: "The War is over, did you hear?" Yes, auntie in her life is a victim of war. Next to her two sons, going to the front did



not come across in the battle with the enemy, nor did she come from them as a scoundrel of other grandmothers. But the war broke up because of the life of both his and his two sons. When there was no war, there would be a fullness, a cup of milk would not have been forced to turn to the House of his own son. When there was no war, Shoikrom was the murderer of his mother, and one lifetime would not be the "victim" of remorse. When there was no war, they would have treated the scoundrel, such problems would not have arisen. She could not lose faith in the Shoikrom, who passed through the most difficult periods with fortitude, patiently endured the difficulties of living as an orphan from the father in the 6th grade. If students are able to relate the idea of the work with such thoughts, it means that the goal pursued by the analysis is considered achieved.

In summary, we can say that today's younger generation has a broad vision and deep potential. As the books say, "the boy is the owner of a flying fantasy". Here is this broad vision, directing the jogging dreams to the educational goal, to science, to literature, which is a treasure of spirituality, is our primary task. And the meaningful analysis of the read works is the first and lasting steps along this path.

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THE IMPORTANCE OF USING INTERACTIVE TECHNIQUES IN PRESCHOOL EDUCATION SYSTEM

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ANNOTATION

Innovative technologies in the field of education originated at the beginning of the twentieth century on the basis of the idea of humanizing the educational process. In this focuses on the issues of satisfying the interests of children according to their desire, respecting each child, creating all conditions for love, development of his personality, being at the center of the educational and educational process of the child's personality. In this article, the significant aspects of the use of interactive techniques in the educational process in preschool organizations are revealed. In particular, the possibility of using "Smart attack", "Role play", "Work in small groups", "Discussion", "Travel to the gallery", "Cluster", "Boomerang", "Energizers" in the drilling process is systematically illuminated.

KEY WORDS: innovation, technology, interactive, child personality, education, pedagogical technology.

DISCUSSION

In recent years, attention has been paid to the updating of the content, form, means and methods of education, innovations in preschool education, the importance of the system of professional development in its introduction into the educational process, pedagogical activity of educators. In particular, the implementation of advanced pedagogical technologies in the pedagogical process, the introduction of innovations, the use of modern methods of teachers and educators, the arming of teachers with skills and qualifications are carried out in the framework of tasks set before the system of professional development.

An important issue that should be applied in the direction of pedagogy is to ensure that educators are methodically organized by being able to predict the pedagogical process purposefully, systematically and results on the basis of modern methods. It is permissible to admit that interactive methods are currently a priority aspect in educational reforms and their role in solving pedagogical problems, one of the important factors that ensures the effectiveness of education. An important aspect of the theory of pedagogical technology is determined by the effective use of interactive techniques in the educational process in order to increase educational activity, taking into account the peculiarities of each educator at the level of his or her own capabilities, as well as the characteristics of Education recipients of different ages.

At the moment, as noted by world psychologists, "indigo" children quickly notice the events taking place in the world in adults. Therefore, today's educators face a number of urgent tasks. One of them is the use of interactive methods in the educational process.

"What interactive methods will PEI educators be able to use?" the right question arises.

"...We demand that educators give our children modern knowledge. But in order to give modern knowledge, first of all, the coach himself must have such knowledge .

Teaching educators to use interactive methods wisely, in accordance with goals and conditions, based on didactic principles is one of the most important issues of modern pedagogy today.

PEI educators try to implement modern methods of their activities by studying scientific articles, brochures, local advanced experiences on preschool education. Sometimes, they apply interactively, without fully understanding the essence and purpose of the methods. Therefore, if an interactive learning environment is created in the process of professional development and educators become a direct participant in it, that is, they pass each interactive method directly through themselves, it will be so easy and convenient for them to adapt these methods to preschool education and apply them to practice.

In preschool institutions, interactive methods can be used: "Smart attack", "Role-playing", "Work in small groups", "Discussion", "Travel to the



gallery", "Cluster", "Boomerang", "Energizers". It is worthwhile for the educator to use the method of clever attack in the process of conducting the lesson to determine the concepts of children on the subject at the beginning and at the end of the lesson, as well as to strengthen the acquired knowledge. "Working in small groups" is based on children's interaction and exchange of views. In the group, the subject given on the basis of analysis, examination will be developed. In "role-playing" children are given a problematic situation. Children animate Real life situations with the help of this method. In the discussion method, children are given a topic the day before. Children will be asked questions from their parents and find answers, and the answers to the questions will be conducted on the basis of "discussion".

Although now there is a clear understanding and reflection of pedagogical technology, such problems as the inability to distinguish technology from methodology in the pedagogues of preschool institutions are met. However, there are serious differences between them, and below is theoretical information about them.

Pedagogical technology is a process that guarantees the child to independently create, acquire knowledge, teach thinking.

Methodology depends on the knowledge, skills, skills, personal qualities, temperament of the educator, is a set of teaching methods and ways that are convenient for a particular person, educator. It is divided into separate methods. The science of pedagogy studies the laws of teaching certain educational sciences. For example, the methodology of languages, the methodology of arithmetic, etc.

It is required to understand the difference of methodology from pedagogical technology and in practice to be able to use both efficiently. The differences between them are presented in Table 1.

Cases where the concept of "pedagogical technology" is consistent with the concept of teaching methods in the private Sciences and at the local level, belong to pedagogical technologies at the private level.

The more processual, scaled, and computational components are expressed in technology, the more objective, content, quality, and variant orientation aspects are expressed in the methods. Technology has its own resurgence from the methods, stagnation of the results, a lot of "if" (the educator is talented, if the children are talented, if there are good parents...) is different in the absence. That is, the technology differs from the method, which is very individual in that it can be restored and applied by all specialists who have the appropriate training.

Method-the way, method or appearance of performing an action.

Pedagogical technology is most closely connected with the educational process (that is, with the activity of the educator in the child), its composition, tools, methods and forms.

Pedagogical technology is a guarantee of full mastering of state requirements, the level of quality.

Pedagogical technology is such a project of the educational process that it is developed by one person or another creative group, from which all educators can use it.

Knowledge is not given to the child in readiness, he is taught in the future to be able to independently acquire knowledge from sources, to be able to think, to stand in an independent position.

It is guaranteed that all children will definitely master their abilities at the level of their needs.

The use of the above interactive methods and techniques plays an important role in achieving the quality and effectiveness of preschool education.

Preschool, which is the initial stage of the continuous education system and forms its foundation, currently occupies a key place in determining the quality and effectiveness of education. Therefore, it is of serious importance to have preschool education on the basis of modern requirements.

Therefore, in the educational process, it is important to familiarize the educator with the methods of using the training preparation module. It is worth saying that at the beginning of each lesson the educator will answer the question "What can I teach children in today's pedagogical time?" "it is necessary that he put the question before himself and set a clear goal. Therefore, every educator should clearly set the approximate time that goes for the pedagogical situation in the creation of the preparatory module.

Proceeding from the above, we will draw conclusions from the work of the training.

Subject: Introduction to air.

The course of the training:

Educator: Children today I will give you the opportunity to fulfill the role of scientists engaged in research. Now I'll tell you a riddle. If you find the answer to the riddle, you will find out what the research will be conducted with.

Children: Air.

Educator: Tell me, do we see the air around us?

There are no children, we do not see.

Educator: To see the children's air, we go to the laboratory (children hang a white apron around the table). We need to catch it in order to know the weather.

Experience 1. "Catch the invisible".

Tutorial: Take your hands on a polyethylene bag all over the table, what's in it?

Children: It is empty.



Educator: We take it and blow it a couple of times, now we twist it, the bag is filled with air, the bag is like a pillow in a bag filled with air. The air settled on the whole pillow and took over the bag. What if we take it off?

Children: The air in the bag goes out, the item returns to its condition.

Educator: As long as we have to hold it to feel the air, we have achieved it. We caught the air.

Experience 2. "Blowing exercise".

Tutorial: You have a glass of water in front of you, we blow the tube into the glass and observe what happens.

Children: Small bubbles are formed.

Educator: When we blow out the air, bubbles are formed in the water. So we watched the weather once more.

Experience 3. "Flying balloons".

Educator: Look at the children, today we come to the training with flying balloons. One is cheerful, full and Crimson, the other is pale, lean and sad. What do you think the second orb why him?

Children: There is no air left in it, it is necessary to blow it so that the balloon is round.

Educator: What do you think if we blow the balloon, what will appear inside the balloon?

Children: Air.

Educator: Now we put our palms in our mouth and breathe, what did you feel?

Children's answer: Air knocks on our palms.

Didactic game. "Crumbles-does not crumble"

Children, respectively, see throwing stones, boards, other small objects from the crate into the water in the trough.

Educator: Children, you see, objects that have air in them rise above the water.

The Energizer. "Cheerful bubbles".

The course of the game. For this game you will need 6 spheres. Participants are divided into 3 or 4 groups by saying "sanama". Each group members round completed they hold each other's hands tightly. The educator gives each group a number of pellets. Their task is to play the balloons as much as possible in the air without putting their hands down. It is impossible to get a balloon that fell to the ground. The group that holds the balloons in the air for a long time will be considered the winner.

Experience 4. Inflate The Drop.

Draw a picture with air.

Tutorial: We draw a tree on paper, for this we use water more. We take a liquid tube with paint, direct the lower end of the tube to the center of the picture, then blow it with force, then spray the paint on all sides. Look, how the paint sticks on all sides. What does it look like?

Children: Like a tree.

Tutor: Do you like this?

Children: Yes.

Educator: You are a saltwater seeker. As a result of our research, we found out the following.

- That there is air around us;
- Air capture method;
- That the air is lighter than water;
- There are also weather forecasters inside;
- The presence in the human body of air.

In this way, the training will be completed.

When conducting an interactive training session, it is recommended that you pay attention to the following:

Participants in the training, choosing a topic:

- Participants age, their interests;
- Temporary symptoms of training;
- Was there any previous training with these groups on the same subject?
- Interest of the group in the same training session.

The necessary conditions are as follows:

- Training purpose.
- Handout materials.
- Technical equipment.
- Participants.
- The main questions are their sequence.
- Practical examples from life.

Aspects that should be in each training session:

- Identify the problem that needs to be solved.
- Introduction of participants (training for acquaintance, elimination of emotional compressions).

- Apply the knowledge gained in the future.

- Practical part.

Interactive methods:

- Dating, "Ice Age" game.
- Circuit chat.
- Mental attack.
- Roller Games.
- Work in small groups.
- Work in pairs.
- Controversy.
- Travel to the gallery.
- Energizers.

The organization and conduct of various interesting classes using these interactive methods increases the interest of children to education, the development of their creative abilities, as a result of the practical application of interactive methods, children will be able to pass these methods on their own and acquire more practical knowledge and skills.

From the above points of view, it is permissible to say the following in conclusion:

- Children of preschool age should be inquisitive, active, initiative, free-thinking, observant, healthy. Now every child has the right to freely create and show his abilities. Based on



advanced pedagogical technologies in non-traditional classes, it is necessary to create conditions for children to show their sympathy. Let not only the lessons of the educators are based on the modern requirements, but also let the educator himself enjoy this training;

- When preparing children for school in pre-school educational institutions, it is necessary to use all-round active methods-interactive techniques, since advanced pedagogical technologies, teaching and education by non-traditional methods are very effective at the present time, improve the quality of Education;

- Teachers of preschool institutions suffer and make mistakes in the separation of methodology and pedagogical technologies from each other. Therefore, in this article they were shown some different aspects;

- The article shows that educators in pre-school educational institutions can accurately determine the approximate time of departure for the specified pedagogical situation, correctly determine the sequence based on the technological map, using interactive methods of training.

The organization of interactive methods used by the educator to the extent that it satisfies the interests and needs of children is an important factor that increases the quality of preschool education.

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A NEW EXPRESSION OF AGE-OLD VULGARITY

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ANNOTATION

The article talks about the depths of a woman who has lost her spiritual appearance in the influence of a market economy. In it, money, the spirit of the personage with the goal of achieving wealth, the worldview is revealed through various dialogues, artistic details, images.

KEY WORDS: *image, story, detail, dialogue, personage, novellistic method, new human concept, language of work.*

DISCUSSION

The discovery of the concept of a person in an artistic work through the inner world of the image is considered one of the tested methods of literary studies. Zulfiya Qurolboy qizi, who used this method, in her story "Momo Havo", the Nafosat who lost the image of humanity in the impact of economic relations and her partner Dr.Davlat reveals the inner world with great skill on the example of one or two sentences[1].

In fact, the events in this work are described in a novellistic way, so it is worthwhile to call the genre of the work novella. The name of the work is also called the mother of mankind in the so-called "Momo Havo", the revered breed, which is the cause of affection, love, the continuity of generations in society. It can also be said that the writer Momo Havo pointed to the first male and female complication, which was expelled from paradise by the desire to cool the air.

The fact is that the Nafosat in the story gives Akbar the name "Momo Havo". True, "Momo Havo" had raised Akbar from the corridor lying on the ground in the mud. Later, when he reached his goal, the willow tore off his soul. The woman's property is that Akbar, who has lost his way in life for material wealth and who has gone from his drink, is taken from the place where he fell in the rain, followed him to his house, gave him medicine, romp himself with sweet words and false bells, returned to life, married to him, obdon studied his life, it does not leave a person in horror. It is proved in the story that market relations and selfishness among people, the consequences of self-thinking can form a culturally evil in society. When people like Akbar see that he

has a white soul, sincere, simple and free of Will in the face of changes in society, his wife leaves in Gulshoda, his daughter is born disabled, his mother dies. Such tattoos of a married man twist the fluff of a young man, he is given to a drunkard. His absence of any pai, the Nafosat and Davlat which determined that his loved ones turned away from him, and try to penetrate into his house. In this Nafosat approaches Akbar and goes to him until he gets married. She plays the role of a false love, a loving and loving wife. In this performance, he slowly begins to give him a mouse. A person and the desire for wealth cover his body. "A person who is indifferent to the evilization of the personality society, the violation of all rights and truths in it, as well as the transformation of people into a gang of wild animals, proves that he has no love for his loved ones with this work" [4]. So, if there is no love, affection in the soul of a person, it turns into a predator, as the scientist emphasizes, and not a person. In this work, the writer warns of the future tragedy of people who, in recent years, have shown tenderness, indifference, apathy towards their loved ones and the kind people around them in the influence of market relations.

When paying attention to the language of this work, one can feel that the skill of opening the spirit of personages is manifested in a mature level. At the beginning of the work, it is repeatedly returned that it rains, and the depth of the house of the corridor along which the Akbar walks, is uneven. For example, "the rain fell literally for three days. The pavement dirty, which moved to asphalt and became a bumpy soil path, the concrete slags on the edge of the pavement filled with muddy water, the fiery leaves crushed under the feet, the mud became dark,



ultimately the road remained slippery" [1,255]. If attention is paid to the language of the work, the precipitation in it, the unevenness of the roads, the laying of a fiery leaf on the ground, symbolizes the spiritual state of Akbar. The author used the method of mental parallelism. The return of the words "road" six times from the first page of the work, as well as the repetition of their unevenness, encourages the reader to focus his attention on the road at first, and then on the life path of Akbar. The corridor, which initially became a simple detail, then a new artistic and aesthetic task, points to the fact that the ways of life are not flat, in which different people can meet. In the same place there is another saying, in which the author can understand the position. "Fifty steps were left to reach his house" [1,255]. This tone of speech is different from the content of what was mentioned in the previous paragraph.

The writer explains earlier that the young man went away until he socks the green wall, an accident that he was afraid of, a fall occurred, he wanted to get up, he could not stand up, and the frozen husband was so numb that he was pleasantly surprised at his hot breasts as copper, that he slept sizzling. After that, the above sentence with a separate paragraph is quoted. In the meaning of the sentence, it is sad, sad. In the previous places, when the exact past tense form of the verbs (sought, liked, took place, remained) was applied, the long past tense (remained) form was applied. That is, one does not enter the house of himself anymore, it is now possible to perceive the meaning that the person who is responsible for his life will take him away. There is also a regret that in the author's speech this fifty-step seemed to be long. And with this, it seems that the personage is trying to warn against a disaster if the behavior of the near future does not change. See, author does not interfere in the life of his hero himself, as far as he knows, he wants him to leave his described environment, with his logical actions. This also provided the real expression of Akbar as a person.

The words and phrases used for the definition of Nafosat denoted the artistic expressiveness of the work in the language. Initially a worthy answer to the questions of the woman's jaws and Akbar will bring warmth to the reader's heart. For example, let's pay attention to the piece on which the first more complete portrait was given: "the bald black cloak was fitting, beauty woman held his hand in the umbrella until the cucumber stretched forward, blocking it from the rain.

– Let me help you... - Woman extended his hand " [1,256].

In particular, the images of Akbar and his environment aroused a slight sense of compassion towards him in the heart of the reader, forcing him to think about the existence of such aspects of life suddenly the appearance of a loving, carrying the

necessary things with him, on the one hand it was necessary to give the reader an impetus, on the In the early hours it was so. In another place, Akbar is a guest in his own house, and the woman is a sign that he is a host: "the owner of the fur house is a coward, a guest who suddenly feels uncomfortable" [1,258].

However, there are some such places, when the reader reads them, there are doubts. For example, in such cases as when a stranger helps a man on the street, enters his house, puts tea, throws a fever, gives medicines against a candle, gives clothes that Akbar crumbles in the rain, closes the door on his own when leaving, it is also noticeable that at first glance there is an indication that there is already a secret under In this way, the writer impregnated the elements of his speech tagzamiri, which also pointed to the psyche of the woman.

The next day they will meet again on the street, the next day they will meet again, and the woman will tell her life, "dardi", and when she meets for the third time she will receive a proposal about marriage, and when she asks for a term, will the guy say that it is enough for a week, this is a long term, as. sample?" there is an indication on the mercenary intention of Nafosat under that respond[1,260]. The writer slowly reveals the original face of a woman with every word, behavior.

Later, when Akbar received an answer from a woman who said that she was a simple, sincere woman who did not know that I had drunk during the first meeting, that she was her own pianist, that I had noticed it, the whole inner world would turn upside down. "I knew it ... this word, pronounced in a low voice, sounded as pleasant as a porcelain bowl ringing in Akbar's ear. But he did not believe his ears. My ears thought that I was being deceived. He did not even try to lower his palms that blocked his face. Weakness made" [1,263]. In this piece of speech, we see that Akbar is not yet completely absent in his spiritual world, behind his life, because he is a pianist, and when he realizes that he is a woman, his conscience wakes up and blushes and blocks his face as if someone is pulling a slap on him. True, the details about the fact that the or-name is strong, the pride is high, are given earlier in other places. But here the color of elegance also becomes pale. He was also afraid that his merciless intention would remain public. But Akbar did not notice it. In this way, the invisible conflict in the inner world of Akbar and Nafosat does not arise until the end of the work, that is, nafosat kills Akbar, holding other rituals, revealing his intention to kill his daughter too.

In this regard, the writer follows the rule that "literature becomes a means of introducing a person into an individ and public communication, a means of introducing information about a person into a relationship by communicating it to the public or to individual persons" [2,31]. As a result, the spirit of



the personages is revealed through the dialogical speech after the work.

"One of the days ...

Uncle with a peak beard, who came to the guest for a disabled girl who was robbed in a wheelchair, made a world of toys and sweets as a gift. It was Dr Davlat.

– Why did you bring this girl home? - Davlat asked from Nafosat about the intricacies of smoking cigarettes in the public kitchen.

– What is do? – woman who has responded with carelessness.

– After all, it's crazy. What was necessary?

- It is necessary. Need a judge?

– I want to fuck a girl with a disability for a lifetime, what kind of trouble? How can you get rid of it if it touches your soul?

The woman snapped.

– It's easy...

– Again margumush?

– What is do? The breath rose up, leaving the cigarette residue. He walked with dignity, holding a goose, and came to the state, leaning on the doorstep:

- What is do? - he repeated it.

– If we slightly increase the dose this time, the difficulty will not go away. Can I find a more dense margumush, dear?"[1,273-274].

This dialogue deserves attention with the fact that the state of personages in it, the comments to its actions, consists of short and simple statements. This is also a sign that evil in the psyche of the personages is so entrenched that it seems to them that this is an oddity. The definition of "peak bearded" in the passage is a satanic definition of the Davlat, and the mention of putting a doctor in front of his name is also an unconventional state. Also, the murder, which was conceived and carried out in order to capture the house, two images – the Davlat and Nafosat are compared to the devil in the image of man and his play. Every sentence, sentence and relationship here suggests that the spiritual world of these two is already full of animal passions and sins. This means that market relations and the spiritual poverty that began under its influence reflected the extent to which people were led by "cultural evil". In fact, the main happiness of mankind is the achievement of a high level of moral-spiritual perfection and, through this, the discovery of a higher level of freedom of spirit, soul and perception. But such maturity is considered a rare phenomenon that not everyone can afford.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS VICCO TURMERIC AYURVEDIC CREAM WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

Today's market is a more customer oriented in the sense all the business operations revolve around satisfying the customer by meeting their needs through effective service. The demand for cosmetic product particularly in urban population steadily rising owing to various reasons. The results show that there is a significant association between monthly income of consumers and price of cosmetics and there is a significant association between education qualifications of consumers and quality of cosmetics. This study shows the satisfaction level of customers towards vicco products in Coimbatore city.

KEYWORDS: Customer satisfaction, Ayurvedic product

INTRODUCTION

Marketing as a subject of study is now attracting increasing attention from business firms, companies, institution and even countries. This, however, does not mean that marketing is a recent business concept. It is one of the oldest professions of the world. Its history can be traced back to the days when the world was young. Marketing though occupied an important place in all stages of economic life, from simple barter economy to the present day, it was not so complicated as it today.

STATEMENT OF PROBLEM

The competition is severe and the manufacturer has to consider the opinion of the customers. Customer is influenced by their attitude towards the product and therefore marketers need to implement their strategies and tactics frequently in order to achieve more customer. A study on customer satisfaction level on VICCO turmeric cream will certainly help for further growth and development in right direction.

OBJECTIVE OF THE STUDY

- To study the customer's awareness about VICCO Turmeric cream.
- To identify the level of satisfaction of the customers towards VICCO Turmeric cream.
- To identify the factors influencing the customers to buy VICCO Turmeric cream.

RESEARCH METHODOLOGY

SOURCE OF DATA

- Primary data
- Secondary data

AREA OF THE STUDY

The area taken for the study was Coimbatore city.

SAMPLE SIZE

The sample size used for the study was 120.

SAMPLING TECHNIQUE

The sampling technique used for the study was convenient sampling.



TOOLS FOR ANALYSIS

- Simple percentage analysis
- Likert scale analysis
- Rank analysis

LIMITATION OF THE STUDY

The data was collected through questionnaires. The responds from many not be accurate.
The sample taken for the study was only 115 and the result drawn many not is accurate.
There is no much awareness about the product in rural area.

REVIEW OF LITERATURE

OLIVER (2007) "A STUDY WAS CONDUCTED TO KNOW A BORN SIZE AND QUALITY OF THE PRODUCT." In this research the problem faced by the customers are the size of the product and quality is very less so they preferring other Cadbury products.

CHRISTOPHER (2008) "THE STUDY WAS RELATED TO KNOW ABOUT THE FACTORS IN THE PURCHASE LEVEL OF THE CONSUMER." In this research the problem

faced by the consumers who are living in rural areas will not be so familiar with product. It is very difficult to reach the village consumers.

RAKASH SHARMA (2009) "THE STUDY WAS RELATED TO KNOW ABOUT THE CONSUMER SATISFACTION LEVEL OF THE PRODUCT VICCO CREAM. In this research the problem faced by the consumer are, the product is not preferred by aged people and not highly satisfied with this product.

DATA ANALYSIS AND INTERPRETATION

The data collected from the samples have systematically applied and presented in the tables under various headings in the following pages. They were also arranged in such a way that; a detailed analysis can be made so as to present suitable interpretation for the same. The data have been analysed using the following statistical tools.

- Simple Percentage Analysis
- Likert Scale Analysis
- Rank correlation Analysis

LIKERT SCALE ANALYSIS

SATISFACTION LEVEL OF PRICE ON VICCO TURMERIC CREAM

Sample Size: 115

S NO	FACTORS	NO OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL SCALE
1	Highly satisfied	29	5	145
2	Satisfied	53	4	212
3	Neutral	31	3	93
4	Dissatisfied	0	2	0
5	Highly Dissatisfied	2	1	2
	TOTAL	115		452

(Source: Primary Data)

$$\begin{aligned}\text{Likert value} &= \sum FX / \text{No of respondents} \\ &= 452 / 115 \\ &= 3.93\end{aligned}$$

INTERPRETATION

The above table indicates the level of satisfaction regarding the Price of the Product shows Likert Scale Value is 3.93 which are greater than the

Mid value (4). Hence the customer, Price of the Product is Satisfied.



SATISFACTION LEVEL OF QUALITY ON VICCO TURMERIC CREAM

Sample Size: 115

S NO	FACTORS	NO OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL SCALE
1	Highly satisfied	17	5	85
2	Satisfied	78	4	312
3	Neutral	17	3	51
4	Dissatisfied	1	2	2
5	Highly Dissatisfied	2	1	2
	TOTAL	115		452

(Source: Primary Data)

Likert value = $\frac{\sum FX}{\text{No of respondents}}$
 $= \frac{452}{115}$
 $= 3.93$

INTERPREPATION

The above table indicates the level of satisfaction regarding the Quality of the Product shows Likert Scale Value is 3.93 which are greater than the

Mid value (4). Hence the customer, Quality of the Product is Satisfied.

RANK ANALYSIS

DISTRIBUTION OF RESPONDENTS TO ANALYSIS THE RANK OF FACTORS BASED ON VICCO TURMERIC CREAM

Sample Size: 115

SNO	FACTORS	RANK I	RANK II	RANK III	RANK IV	RANK V	TOTAL	RANK
1	Good Quality	26(5) 130	27(4) 108	14(3) 42	42(2) 84	6(1) 6	370	V
2	Affordable Price	10(5) 50	43(4) 172	55(3) 165	2(2) 4	5(1) 5	396	II
3	Time availability	13(5) 65	40(4) 160	48(3) 144	7(2) 14	7(1) 7	390	IV
4	Easily applicable	15(5) 75	41(4) 164	39(3) 117	17(2) 34	3(1) 3	393	III
5	Reliability	30(5) 150	47(4) 188	22(3) 66	5(2) 10	11(1) 11	425	I

(Source: Primary Data)

INTERPREPATION

In the above table, out of 115 respondents, Reliability is in the Rank of 1, Affordable Price is in the Rank of 2, Easily Applicable is in the Rank of 3, Time Availability is in the Rank of 4 and Quantity is in the Rank of 5

FINDING OF THE STUDY

Findings of simple percentage analysis

- It concluded that a majority (59.1) of the respondents are 21-30 Years.

- It concluded that majority (65.2) of the respondents are Female.
- It concluded that majority (74.8) of the respondents are Unmarried.
- It concluded that majority (55.7%) of the respondents are 4 Members.
- It concluded that majority (33%) of the respondents are Earning up to Rs.15001-Rs.20000
- It concluded that majority (73.9%) of the respondents are College level



- It concluded that majority (50.4%) of the respondents are Student.

Findings of Likert Scale analysis

- Likert Scale Value is 3.93 which are greater than the Mid value (4). Hence the customer, Price of the Product is Satisfied.
- Likert Scale Value is 3.93 which are greater than the Mid value (4). Hence the customer, Quality of the Product is Satisfied.
- Likert Scale Value is 3.43 which are greater than the Mid value (4). Hence the customer, Quantity of the Product is Satisfied.
- Likert Scale Value is 3.31 which are greater than the Mid value (4). Hence the customer, Availability of the Product is Satisfied.
- Likert Scale Value is 3.21 which are greater than the Mid value (4). Hence the customer, Color of the Product is Satisfied.

Findings of Rank Correlation Analysis

- Out of 115 respondents, Reliability is in the Rank of I, Affordable Price is in the Rank of II, Easily Applicable is in the Rank of III, Time Availability is in the Rank of IV and Quantity is in the Rank of V

SUGGESTIONS

- The awareness for the product had to be elaborated.
- It should also improve their distribution network.
- Advertisement has to be changed as they are still publishing the old version.
- The product has to be available in local markets so that the customers can consume the product easily.
- Customers also excepting the product to maximize the Quantity of the product.
- The manufacture must also focus on the improvement of their product packaging.

CONCLUSION

In this research it founded that the customer prefers this product as their daily consumption. The customer is satisfied with their product. The main objective of every product is maximizing profit and it is possible only when the customer satisfied with this product. By conducting this study, I concluded that customers are more satisfied with this product and their quality, quantity and also with their reasonable price. A study on customer satisfaction towards the product helps to learn more knowledge about the product and also helps the company to know their product details.

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A STUDY ON CONSUMER SATISFACTION TOWARDS RAMRAJ COTTON WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

This study aims to find out the consumer satisfaction towards the Ramraj cotton with special reference to Coimbatore city. Consumer satisfaction is the overall limpression of customer about the supplier and the products and services delivered by the supplier. Objectives of the study is to identify the attitude and behavior of the customers preference towards Ramraj cotton. Also, to examine various factors that are influencing the satisfactory level of Ramraj cotton. And, to the study the opinion of the customer towards price, quality and hospitality. The study was analysed with 140 respondents. Percentage analysis, Likert scale analysis and Ranking Correlation were used for the study. The present study deals with the analysis of satisfaction towards ramraj cotton with special reference to Coimbatore city.

KEYWORDS: Customer satisfaction, quality, price.

INTRODUCTION

Customer satisfaction, a business term is a measure of how products and service supplied by a company meet or surpass customer expectation. It is seen as a key performance indicator within business and it is part of the four of a balanced scorecard. In today's competition condition, which factors cause satisfaction, which variables changes customers satisfaction which ways and how these variables can be merged for which segments which activities can be designed that marketing managers must consider.

STATEMENT OF THE PROBLEM

Understanding of the brand preference is essential aspects as it reflect the customer's choice, purchase of particular brand, performance, style and satisfaction of the customers. The task becomes even harder when it comes to consumer durables. The study is restricted to Coimbatore city, which is no doubt an economically richest and tremendous potential for all the product and service because people of various religions, languages, and cultural background and socio-economic characteristics live in this area. Understanding consumer's choice regarding purchase of any goods and service is difficult task. Very limited numbers of studies have been done to examine the brand preference of

consumers of mostly used consumer durables.

OBJECTIVES OF THE STUDY

- To identify the attitude and behavior of customers towards the organized Ramraj cotton.
- To study the brand position and customers preference towards Ramraj cotton.
- To study the opinion of the customers towards price, quality, hospitality etc.,
- To identify the problem faced by the respondents while using Ramraj cotton.

RESEARCH METHODOLOGY

PRIMARY DATA

The primary data are collected with specific set of objectives to assess the current status of any variable studied. The primary data were collected using structure questionnaire in Google form.

SECONDARY DATA

The secondary data has been collected from magazines, books and websites. Sampling method has been used in the study for the purpose of making analysis. Simple percentage analysis has been adopted in the study.



SAMPLE SIZE

The sample size used for the study is 140 respondents.

SAMPLING TECHNIQUE

The sampling technique used for this study is convenient sampling.

AREA OF STUDY

The study is conducted only in Coimbatore city.

STATISTICAL TOOLS USED

- Percentage Analysis
- Likert Analysis
- Ranking correlation

REVIEW OF LITERATURE

UMA MAHESHWARI, R. BHUVANESHWARI AND V. BHUVANESHWARI (2014)³ Indian textile industry is one of the leading textile industries in the world. The needs of the people are increasing day-by-day. People are more interested to dress nearly and make them purchase more and more from the retail outlets. The data was collected from 100 respondents using questionnaires method. Simple percentages analysis has been used in the study. It was found from the study that respondents are seen to give more preference to the collection while choosing

the showroom. Hence the outer retailers can also increase their new varieties of collection and the retailers must make an extra effort to create more awareness of their products to the general public and they can do it by making it innovative advertisements that may influence more customers to purchase to visit their showrooms.

B. CHITRA (2014)⁴Textile industry in India is providing one of the most basic needs of people and is the second largest employment after agriculture. Coimbatore, the hub of spinning and weaving mills is known as Manchester of South India. The textile industry has been involved in manufacturing more variety of garments. In this study an attempt is being made to study the consumer attitudes towards the garments to know the various modes of payment and their preference and expectations over the Garments product in Sri Devi textile, Coimbatore

OZLEM KAYA AND FATMA (2014)⁴Now a day's most of the firm understood the importance of obtaining competitive advantages of inter-enterprise relation and started to re-establish the relation of both suppliers and customers depending on the basis of cooperation and gain. The study was applied 497 active textile clothing industry some variables have been reached in relation to supply chain.

³Umamaheshwari, R.Bhuvaneshwari and V. Bhuvaneshwari (2014) A study on consumer preference towards textile retail outlets with special reference to selected textile outlets in Coimbatore city, International journal of management, Information technology and engineering. Pp-33-41.

⁴Chitra(2014) A study on consumer attitude towards buying in Sri Devi textiles, International journal of business and management invention pp-35-40.

⁵Ozlem Kaya and Fatma (2014) A research on the application of supply chain in textiles, clothing industry, International journal of innovation, Management and technology.pp-334-338.



DATA ANALYSIS AND INTERPRETATION SIMPLE PERCENTAGE METHOD

TABLE SHOWS THE SOURCES INFORMATION OF THE RESPONDENTS

S.NO	INFORMATION SOURCES	NO OF RESPONDENTS	PERCENTAGE
1	Magazines	5	4
2	Pamphlets	5	4
3	Friends/Relatives	22	16
4	Television/Internet	108	77
5	Others	0	0
	TOTAL	140	100

(Sources: primary data)

INTERPRETATION

The table shows that out of 140 respondents 4% of the respondents are influenced through magazines and pamphlets, 16% of the respondents are influenced through friends/relatives, and 77% of the respondents are influenced through television.

INFERENCE

Hence, Majority 77% of the respondents are influenced through Television/internet.

LIKERT SCALE ANALYSIS

TABLE SHOWS THE COLLECTION SATISFACTION LEVEL OF THE RESPONDENT

S.NO	FACTORS	NO OF RESPONDENTS	LIKERT SCALE VALUE	TOTAL SCALE
1	Highly satisfied	16	5	80
2	Satisfied	106	4	424
3	Neutral	12	3	36
4	Dissatisfaction	1	2	2
5	Highly Dissatisfaction	5	1	5
	TOTAL	140		547

(Sources: primary data)

$$\begin{aligned}\text{Likert Value} &= \text{FX / No. Of Respondents} \\ &= 547/140 \\ &= 3.90\end{aligned}$$

INTERPRETATION

The table shows that the level of satisfaction shows Likert scale value is 3.90 which is greater than the mid value (3)

INFERENCE

Hence the customer is highly satisfaction of collection.



RANKING CORRELATION

TABLES SHOWS THE RESPONDENTS RATING OF THE PRODUCT

S.NO	PRODUCT	RANK I	RANK II	RANK III	RANK IV	RANK V	TOTAL	RANK
1	Sarees	10(5) 50	9(4) 36	73(3) 219	41(2) 82	7(1) 7	394	1
2	Kids wear	5(5) 25	15(4) 60	72(3) 216	43(2) 86	5(1) 5	392	2
3	Dhoti	4(5) 20	6(4) 24	39(3) 117	77(2) 154	14(1) 14	329	4
4	Shirts	5(5) 25	4(4) 16	33(3) 99	83(2) 166	15(1) 15	321	5
5	Inner wear	2(5) 10	6(4) 24	78(3) 234	40(2) 80	14(1) 14	362	3

(Sources: primary data)

INTERPRETATION

The tables shows out of 140 respondents, sarees is in the rank, kids wear is in the rank 2, Inner wear is in the rank 3, Dhoti is in the rank 4 and Shirts in the rank 5.

INFERENCE

Sarees is the first rank I Ramraj cotton.

FINDINGS, SUGGESTION AND CONCLUSION

FINDINGS OF SIMPLE PERCENTAGE

- Majority 96% of the respondents are below the age of 20 years.
- Majority of 94% of the respondents are Male.
- Majority of 91% of the respondents are unmarried.
- Majority 83% of the respondents are students.
- Majority 54% of the respondents are earning Up to Rs 20,000.
- Majority 84% of the respondents are nuclear family.
- Majority 86% of the respondents are college level.
- Majority 77% of the respondents are influenced through Television/internet.
- Majority 59% of the respondents visiting 1 year.
- Majority 64% the respondents are considering Quality.
- Majority 51% of the respondents are visiting Festival time.
- Majority 56% of the respondent voted Average.
- Majority 47% of the respondent voted May be.
- Majority 51% of respondents insist by Quality.

- Majority 35% of the respondents purchase during festival time.
- Majority 82% of the respondent voted Good.

RANKING ANALYSIS

- This is resulted that sarees is in the Rank1 that respondents.

LIKERT SCALE ANALYSIS

- Hence the customer is highly satisfaction of price.
- Hence the customer is highly satisfaction of design.
- Hence the customer is highly satisfaction of availability.
- Hence the customer is highly satisfaction of quality.
- Hence the customer is highly satisfaction of collection.

SUGGESTIONS

- Ram Raj Cotton has to improve awareness even for females.
- They are focusing more only on shirts and dhotis.
- Ram Raj Cotton may create awareness among youths also.
- Ram Raj Cotton shall attract urban area people also.
- Ram Raj Cotton increases even more colors and styles.
- Quality of the product may attract the people.
- Ram Raj Cotton shall be given even more discount and offers.

CONCLUSION

The study has basically helped to find out consumer's satisfaction towards Ramraj cotton and factor influencing the buying behavior of consumer.



Consumers feel that dhotis and shirts have variety of colors, models and quality compared to other dress materials in Ramraj. Consumer shall aware that ram raj cotton producing the sarees also. If the suggestion will implemented, the product can increase its growth and marketing level at the right time.

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2. **Chitra (2014)** A study on consumer attitude towards buying in Sri Devi textiles, *International journal of business and management invention* pp-35-40.
3. **Ozlem Kaya and Fatma (2014)** A research on the application of supply chain in textiles, clothing industry, *International journal of innovation, Management and technology*.pp-334-338



LINGUOCULTUROLOGICAL FEATURES OF COLOR GAMMA REPRESENTATION IN UZBEK AND RUSSIAN LANGUAGES

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ANNOTATION

This article is devoted to the analysis of the linguistic representation of color concepts in the Uzbek and Russian languages.

KEY WORDS: color semantics, basic color designations; nuclear and peripheral conceptual signs, color concepts, descriptions of the surrounding reality.

ЛИНГВОКУЛЬТУРОЛОГИЧЕСКИЕ ОСОБЕННОСТИ РЕПРЕЗЕНТАЦИИ ЦВЕТОВОЙ ГАММЫ В УЗБЕКСКОМ И РУССКОМ ЯЗЫКАХ

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Аннотация

Настоящая статья посвящена анализу языковой репрезентации концептов цвета в узбекском и русском языках.

Ключевые слова: цветовая семантика, базисные цветообозначения; ядерные и периферийные концептуальные признаки, концепты цвета, описания окружающей действительности.

В современной науке проблемам цветового зрения, цветового восприятия уделяется одно из главных мест. Ученые-лингвисты внесли весомый вклад в исследование цвета и цветовой семантики. Так, Б. Берлин и П. Кей, исследуя системы цветообозначений в разных языках, устанавливают базисные цветообозначения; Э. Рош изучает психологический аспект фокусных цветов; А.П. Василевич описывает состав лексики цветообозначений в психолингвистическом эксперименте; Н.Б. Бахилина изучает цветообозначения на базе сравнительно-

исторического анализа; Р.М. Фрумкина проводит психолингвистический эксперимент; А. Вежицкая предпринимает попытку найти для базисных цветов естественные прототипы из окружающей среды; С.Ф. Тер-Минасова исследует социокультурный аспект цветообозначений. С.А. Фетисова в своей диссертационной работе «Концептуализация имени цвета «красный» [1] исследует ядерные и периферийные концептуальные признаки имени цвета красный.

В настоящей статье рассматриваются ядерные концептуальные признаки имен белого,



черного, красного, желтого, зеленого и синего (голубого) цветов: Анализ выбранных концептов цвета в двух лингвокультурных традициях позволяет выявить общее и специфичное в их функционировании.

Теоретическая значимость нашей работы определяется тем, что применение методики концептуального анализа способствует раскрытию семантического богатства исследуемых концептов цвета и изучению особенностей мышления, которыми обладают носители рассматриваемых языков. Исследования подобного рода позволяют приблизиться к решению вопроса о влиянии языка на восприятие мира его носителями.

Концепты цвета, являясь продуктом человеческого сознания, отражают глубоко психологические характеристики. Изучение языковой репрезентации концептов цвета показывает единство человека и окружающей его действительности, где цвет является постоянным атрибутом.

Посредством концептуального анализа в семантике имен цвета, репрезентирующих белый, черный, красный, желтый, зеленый, синий (голубой) цвета в узбекском и русском языках были выявлены и проанализированы три группы ядерных концептуальных признаков: «Жизненно важные реалии», «Человек» и «Артефакты».

В группу «Жизненно важные реалии» входят случаи описания окружающей действительности, природных явлений, ландшафта, животного и растительного миров. Концепты белого цвета определяют такие жизненно важные реалии, как снег, дневное время суток, белые (северные) ночи, свет, ночные небесные светила (луна, звезды), облака, туман, дым, пыль, водные просторы. Черный цвет является устойчивым признаком темных, лишенных света элементов окружающей человека действительности, таких как ночь, тени, ненастное небо, темные грозные тучи, земля, различные водоемы. Жизненно важными реалиями, описываемыми именами красного цвета, являются огонь, кровь, солнце во всех его ипостасях, животный и растительный мир.[2]

В группу ядерных концептуальных признаков, определяемых концептами желтого цвета, входят солнце, луна, свет, туман, грозные тучи. Обозначения зеленого цвета в исследуемых языках являются устойчивой характеристикой зеленой растительности, неба, водных, просторов. Прилагательные, обозначающие синий и голубой цвета, также описывают небо, водные просторы, горные вершины, лунный свет, ясный день, свежий воздух. Кроме того, исследуемые имена цвета в трех языках широко определяют растительный и животный мир.[6]

Вторая группа ядерных концептуальных признаков «Человек» -представляет случаи описания элементов внешности человека, а также ее изменений вследствие реакций организма на какие-либо внешние (холод, чрезмерное

потребление алкоголя, удары, ушибы и пр.) и внутренние (болезнь, различные эмоциональные состояния) раздражители. Анализ фактического материала показал, что рассматриваемые концепты цвета широко описывают как человека в целом, так и отдельные части его тела. Концепты цвета, описывая внешность человека, могут указывать на более специфичные особенности, такие как возраст, (*Oppoqsoqolli chol* (Старик с белой бородой.) в каштановых волосах появилась белая прядь), физическое состояние (например, реакция на холод: (*Uning burni qizarib ketdi*. (Ее нос покраснел, и она выглядела очень замерзшей); Лицо. досиня иззябшее), психическое состояние, чаще негативное (раздражение: *Bu qizil yuzli yigit qorayib ketganligidan yuzlariga ajin bosdi* (Этот румяный' мужчина . почернел и сморщился); (покрасневший, сердитый): Он так побледнел, что даже губы его посинели; смущение, стыд: *U uyalib ketganidan xatto lablari ko'karib ketdi*. (Мальчик засмущался и покраснел)); состояние здоровья (с мертвенно-бледным лицом); и лицо ее . показалось ему. лихорадочно-желтым, как болезнь).

Третью группу ядерных концептуальных признаков «Артефакты» составляют предметы одежды и домашней утвари, быта и других сфер человеческой деятельности. В эту же группу входят и жизненно важные для человека продукты питания. Анализ фактического материала показал, исследуемые цветообозначения имеют широкую сочетаемость с существительными, называющими различные материальные явления, созданные человеком. Причем признак цвета нередко указывает на некоторые дополнительные характеристики предмета. Так, дополнительными признаками объектов белого цвета являются 'чистый, опрятный', 'свадебный', 'праздничный', 'медицинский', 'заметный в темноте (или на фоне чего-либо темного)', 'диетический (о мясе)'; черного цвета — 'траурный'; 'официальный, деловой', 'скромный' (об одежде); 'грязный'; красного цвета - 'опасный', 'ценный (например, о дереве)', 'теплый, горячий (например, о кранах с горячей водой)'; желтого цвета — 'старый', 'грязный'; зеленого цвета, могут быть 'неспелый', 'неготовый к использованию'.[3]

Наш анализ показал, что в названиях указанных концептов цвета в двух языках имеются некоторые количественные и качественные различия, которые можно представить в виде следующей таблицы: узбекский язык, русский язык: *qora* —черный, *qizil*- красный, *qariq*- желтый, *yashil*-синий, *havo rang*- голубой, *yashil*-зеленый

Как видно, в узбекском и русском языках наблюдается почти полное совпадение цветоименований. Единственным расхождением является особенность русского языка выделять два основных названия - синий и голубой в области синего цвета. В узбекском языке имеются два слова, эквивалентных русскому голубой (*ko'm-ko'k* и *havo rang*) Еще одной особенностью узбекского



языка является то, что слово *ko'k* может обозначать и зеленый, и голубой цвета. (*Ko'k maysalar-зелень*)

Проведенный комплексный анализ свидетельствует о значительных совпадениях в концептуализации исследуемых цветообозначений, что, по-видимому, обусловлено некоторыми общечеловеческими особенностями восприятия явлений действительности, сходными климатическими условиями, отдельными совпадениями жизненных условий, языковым контактированием и взаимодействием культур. [4] Так, например, белый цвет в двух языках является устойчивым признаком такой жизненно важной реалии, как снег: *qor*, (И леса, и поля были покрыты белым снегом) *dalalar oppoq qor bilan burkangan edi*. (на фоне свежего белого снега); снег на вершинах стал белей и ярче; красный, цвет является цветом огня: (Красный, как раскаленные угли автомобиль повез Икрама домой); *Maydalangan ko'mirday qip-qizil avtomobil Ikromni olib keldi* (большой огонь был красный.); красноватый тусклый огонек; зеленый цвет - цветом растительности: *Katta olov qip-qizil edi: Yashil rang-o'simliklar ranggi*: (На земле появилась, зеленая трава, деревья тоже стали зелеными); *Yer yuzida yashil maysalar paydo bo'ldi. Endi o'simliklar energiya olishdi. Ludud o'zining jingalak sochlarini silkitgandi, u butun yashil rangga aylandi.* (Теперь растительность набралась энергии; Ловуд встряхнул своими пышными кудрями, он весь зазеленел.) через зеленые ветки на небо. [7]

Результатом взаимодействия культур может быть то, что, например, белый цвет одежды в исследуемых лингвокультурах считается свадебным, праздничным, торжественным, а черный - траурным, официальным, деловым. [5]

Межъязыковые различия в репрезентации исследуемых концептов цвета могут быть связаны с особенностями культурных, социальных, географических, исторических условий развития того или иного языка. Примером подобных несоответствий могут послужить различия в языковой репрезентации концептов цвета, представляющих синий, голубой и зеленый цвета в узбекском и русском языках.

Наше исследование является попыткой рассмотрения феномена цвета как своеобразного концепта мировидения, обладающего широким номинативным потенциалом, многоплановостью и семантической многозначностью. В качестве перспективы дальнейшего исследования можно рассматривать изучение концептов цвета на материале паремий, текстов различных жанров, а также путем опроса информантов, что позволит достаточно глубоко исследовать их национально-культурную специфику.

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E-BANKING –TRANSFORMATIONAL CHANGE IN TRADITIONAL BANKING A FOCUS ON CUSTOMER PERCEPTION TOWARDS SELECT PUBLIC AND PRIVATE BANKS IN NAGAPATTINAM DISTRICT

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ABSTRACT

The study highlights the customer perception towards E-banking services and service quality of two prime banks in two sectors. The study was conducted in Nagapattinam district of Tamilnadu with 250 respondents in each bank was chosen for the study. Questionnaire was used to collect data from the respondents. Respondents were surveyed on demographic traits and dimensions of service quality to compare the quality of service between the banks.

E-banking necessity was analysed through newly introduced products of the banks. The study concluded with a positive impact on e-services and some immediate action on factors by the banks of customer interest. Respondents concern with E banking services was to have a safe and secured banking. At present the banking sector lacks in providing a secured banking function to its customers due to the present threat it faces from the hackers.

KEYWORDS: E-Banking; Dimensions; Perception; Expectation; Service quality; Gap; Reliability; Tangibility\

1. INTRODUCTION

Information and Communication Technology (ICT) came into picture in the year 1980s' in banking industry. There were different phases introduced during the evolution of ICT in the banking sector. Banks were focusing on automating the laborious accounting process and the functions performed at back office operations like maintenance of deposits, calculation of interest, and maintaining of ledger accounts at the first phase of ICT development. New generation private sector banks was started by opening up in the third phase, these banks opening the branches with small network under the computerized environment and they introduced the networking concept and centralized operations. After centralized banking system the banks have already captured substantial business, core banking solution was introduced and instead of branch-customer the bank customer concept was introduced. In core banking Anywhere, Anytime and Anyhow (AAA mantra) was implemented under which the customer carried out his own required transactions through automated teller machine (ATM), mobile banking, internet banking, and phone banking. Now banks provide flexible options to the customers at very less operational costs through ATMs and internet banking.

Interbank connectivity is the fifth stage of development of ICT, now the concept of "bank-customer" has further improved to "banking industry-customer" because inter-bank and inter-branch connectivity has been possible through "Real Time Gross Settlement System". In a competitive environment computerization, information technology and automation of services are key issues. Technological advancement has totally changed the scenario of banking sector, however, the implementation of IT in banking without undertaking appropriate Business Process Re-engineering (BPR) exercise will not prove to be fruitful. Now customers are facilitated to carry out most of the transactions without having to visit the branch premises through channels like tele-banking, remote customer enquiry terminals, kiosks, internet banking, ATMs, mobile banking, and phone banking E-banking is the term that signifies and encompasses the entire sphere of technology initiatives that have taken place in the banking industry. E-banking is a generic term making use of electronic channels through telephone, mobile phones, internet etc. for delivery of banking services and products. The concept and scope of e-banking is still in the transitional stage.



2. SERVICE QUALITY

Quality is a key requirement in every field. The basic concept of quality is "Meeting the Need of Customer". In most generalized way the Quality term can be defined as "The inclusion of all specified features and characteristics as defined for product or service and its ability to satisfy the given needs as per the requirement of user". Customer perception relates with customer satisfaction and service quality. Service quality is affected by the service quality attributes like Reliability, tangibility, assurance, responsiveness, and empathy. Customer satisfaction is measured by the customer expectation and customer perception, which may change from person to person.

Service Quality = Perception – Expectation

3. OBJECTIVES OF THE STUDY

1. To observe some of the demographic traits of the respondents in the study area.
2. To highlight various E- banking services provided by public and private banks.
3. To determine the preference of customers regarding the E-service quality in select banks

4. To compare E-banking service with traditional banking service in terms of customers perception.

4. PERIOD OF STUDY AND AREA

The primary data was collected for a period of 6 months from June 2019 to December 2019 from the bank customers of two major banks in the Nagapattinam District restricted to town limit.

5. SELECTION OF SAMPLE BANKS

In order to select the banks, a list of top 10 banks existing in India. Thereafter, one bank in each category, having the maximum number of branches was selected. The banks selected were ICICI from private sector bank and SBI from public sector bank. ICICI being India's Universal bank and it is second largest private sector bank having nationwide network. SBI is selected for the study because it is India's premier nationalized bank and also largest bank operating in India.

(Source: Indian Business Directory, Banking Industry,)

6. DATA ANALYSIS AND INFERENCE

TABLE 6.1 EDUCATIONAL STATUS OF THE RESPONDENTS

Sl. No.	Educational Status	No. of Respondents	Percentage
1	Upto Higher Secondary	50	10.0
2	Graduate	237	47.4
3	Post graduate	101	20.2
4	Professional degree	94	22.1
5	Illiterates	18	0.036
	Total	500	100.0

Source: Primary data

INFERENCE: Table 6.1 depicts that among the 500 respondents, 47.4 per cent i.e 237 of the total respondents come under the category of graduate level of education. 101 respondents have completed post graduate level and they accounted 20.2 per cent of the total. 0.036 per cent of the respondents are illiterates. 10 per cent of the respondents completed

upto higher secondary level of education. It is inferred from the data that everyone has account in the bank, but the rate of accessibility differs according to their qualification.

TABLE 6.2 OCCUPATION OF THE RESPONDENTS

Sl. No.	Occupation	No. of Respondents	Percentage
1	Employees	142	28.4
2	Business	165	33.0
3	Profession	74	14.8
4	Students	46	9.2
5	Housewife	20	4.0
6	Retired	38	7.6
7	Agricultural and others	15	3.0
	Total	500	100.0

Source: Primary data

INFERENCE: Table 6.2 indicates that 28.4 per cent of the total respondents are employees. 165 respondents are businessmen and accounted 33 per cent of the total. It also showed that 74 respondents were professionals and they accounted 14.8 per cent on total. 9.2 per cent of the total respondents were

student, 4 per cent of the total respondents were housewife, and 7.6 per cent of the total respondents were retired persons. Only 3 per cent of the total respondents are doing agriculture and other work. At present bank has become inseparable from mankind.

TABLE 6.3 RESIDENTIAL AREA OF THE RESPONDENTS

Sl. No.	Residential Area	No. of Respondents	Percentage
1	Urban	422	84.4
2	Rural	78	15.6
	Total	500	100.0

Source: Primary data

INFERENCE: Table 6.3 shows number of respondents from urban and rural areas and their percentage to total. It indicates that 84.4 per cent of the total respondents are from urban area and minor

percentage of respondents is from rural area, 15.6 per cent on the total. Urban people access to banking services more often than rural people due to easy accessibility.

TABLE 6.4 RESPONDENTS' OPINION ABOUT NEED FOR E-BANKING SERVICES

E-Banking Services	Public Bank	Private Bank	Total
Vital	47 18.8%	58 23.2%	105 21.0%
Essential	128 51.2%	111 44.4%	239 47.8%
Desirable	45 18.0%	52 20.8%	97 19.4%
Cannot say exactly	30 12.0%	29 11.6%	59 11.8%
Total	250 100.0%	250 100.0%	500 100.0%

Source: Primary data

INFERENCE: It is clearly evident from Table 6.4 that 18.8 per cent of the respondent from public sector bank and 23.2 per cent of the private sector bank respondents stated that e-banking is vital. Advancement in ICT has brought a vast change in the

banking sector in the recent period. A tough competition exists between public and private sector banks as to its service and quality of rendering the same. E- banking is regarded as very essential by the customers in the fast moving life style.



TABLE 6.5 RESPONDENT'S PREFERRED E-BANKING SERVICES

E-banking services adopted	Public Bank	Private Bank	Total
ATM	219 87.6%	209 83.6%	428 85.6%
Credit card	124 49.6%	138 55.2%	262 52.4%
Mobile banking	78 31.2%	123 49.2%	201 40.2%
Debit card	198 79.2%	208 83.2%	406 81.2%
Internet banking	68 27.2%	72 28.8%	140 28%
Electronic clearing services	12 4.8%	18 7.2%	30 6%
Electronic fund transfer	21 8.4%	17 6.8%	38 7.6%
Online tax accounting	15 6%	11 4.4%	26 5.2%
Interactive voice response	4 1.6%	5 2%	9 1.8%
Centralized banking	6 2.4%	4 1.6%	10 2%
Online Fax Accounting System	4 1.6%	6 2.4%	10 2%
Foreign Exchange System	3 1.2%	5 2%	8 1.6%
RTGS	2 0.8%	3 1.2%	5 1%
Total	250 100%	250 100%	500 100%

Source: Primary data

INFERENCE: Out of 500 sample respondents a good majority (85.6%) of the respondents are using ATM services. 87.6 per cent of respondents from public sector bank and 83.6 per cent of respondents from private sector bank are using ATM services at the foremost. 49.6 per cent of respondents from public sector bank and 55.2 per cent of respondents from private sector bank are using Credit card facilities, 31.2 per cent of respondents from public

sector bank and 49.2 per cent of respondents from private sector bank use mobile banking. Debit card services are used by public and private bank customers as 79.2 and 83.2 per cent respectively. Availability of banking products is plenty but public lack the awareness about these services and also the trust on these services due to insecurity. Safe and secured banking is expected by the public for their hard earned money.

6.6 PREFERENCE TOWARDS INTERNET BANKING

	Public Bank	Private Bank	Total
To pay monthly commitments towards savings, EB Bill etc	19 27.94%	25 34.72%	44 31.43%
Check the account balance	15 22.06%	21 29.17%	36 25.71%
Transfer of funds (NEFT, RTGS)	27 39.71%	20 27.78%	47 33.57%
Change Password, Purchase bank product and others	7 10.29%	6 8.33%	13 9.29%
Total	68 100.0%	72 100.0%	140 100.0%

Source: Primary data



INFERENCE: It is revealed from the above table that 27.94 per cent of customers of public sector bank and 34.72 per cent of customers of private sector bank preferred to use internet banking for payment towards personal monthly commitments like EB bill, EMIs etc, 22.06 per cent from public bank and 29.17 per cent of customers from private bank liked to use internet banking to check their account balance.

39.71 per cent of customers of public sector bank and 27.78 per cent of customers of private sector bank preferred internet banking for transfer of funds. others. It is concluded that most of the public bank customers use internet banking for transfer of funds and most of the private bank customers use internet banking for monthly obligations.

TABLE 6.7 PERCEPTIONS TOWARDS E-BANKING SERVICES

Perception	Public Bank	Private Bank	Total
Time saving and speedy	53 21.2%	56 22.4%	109 21.8%
Convenience and user friendly	90 36.0%	89 35.6%	179 35.8%
Cheaper	25 10.0%	26 10.4%	51 10.2%
Easier	60 24.0%	59 23.6%	119 23.8%
Anywhere and Anytime	22 8.8%	20 8.0%	42 8.4%
Total	250 100.0%	250 100.0%	500 100.0%

Source: Primary data

INFERENCE: Innovation in ICT has brought many revolutions in the operating functions of the banks towards its customers and clients. Time saving and speedy work is considered to be one of the boon in the banking sector, nearly 21 and 22 percent of the respondents feel this factor as benefit to them,

following the same convenient and user friendly program is much welcomed by the respondents, 35 and 36 percent of the respondents in both the banks prefer the same. Advancement leads to easy and smooth functioning of the industry.

TABLE 6.8 PROBLEM IN USING CENTRALIZED BANKING SERVICES

Opinion	Public Bank	Private Bank	Total
Yes	89 35.6%	100 40.0%	209 41.8%
No	161 64.4%	150 60.0%	291 58.2%
Total	250 100.0%	250 100.0%	500 100.0%

Source: Primary data

INFERENCE: From the Table 4 can be concluded that though backed by some minor problems people like to overcome them and use the technology very

efficiently in their fast moving life style. Here it is evident that maximum of the respondents revealed that problems are only passing away.

TABLE 6.9 COMPARISON OF E-BANKING WITH TRADITIONAL BANKING

Aspects	Excellent	Good	Fair	Poor	Very poor	Total
Cost reduction	64	271	99	37	29	500
	12.8%	54.2%	19.8%	7.4%	5.8%	100%
Efficiency	212	218	25	24	21	500
	42.4%	43.6%	5%	4.8%	4.2%	100%
Saving Time	227	204	19	14	36	500
	45.4%	40.8%	3.8%	2.8%	7.2%	100%
Secrecy	135	172	36	40	117	500
	27%	34.4%	7.2%	8%	23.4%	100%
Quality of Service	179	207	30	28	56	500
	35.8%	41.4%	6%	5.6%	11.2%	100%
Complaint Resolution	78	139	49	60	174	500
	15.6%	27.8%	9.8%	12%	34.8%	100%

Source: Computed from primary data

INFERENCE: The table highlights the merits of modern banking with traditional banking. Present banking system is enhanced and improved in time saving, efficiency, quality of service and cost reduction aspects. Above stated factors is ranked as excellent by the respondents in maximum numbers. It

is concluded that all the selected aspects in E-banking services are better than traditional banking system except complaint resolution, which needs a serious look in to the factor, since safety and security is the prime factor which the customers expect from the services offered to them.

TABLE 6.10 SERVICE GAP IN OVERALL SELECTED FIVE DIMENSIONS

Sl. No.	Service Quality Dimensions	Expected	Perceived	Gap	Percentage
1.	Reliability	2.41	2.29	0.12	17.14
2.	Tangibility	2.64	2.49	0.15	21.43
3.	Responsiveness	2.49	2.33	0.16	22.86
4.	Empathy	2.72	2.58	0.14	20.00
5.	Assurance	2.6	2.47	0.13	18.57
	Total	12.86	12.16	0.7	100.00

Source: Computed from primary data

INFERENCE: The table portrays the total expectation score of the five broad dimensions selected. It stood at 12.86 in the case of expected level and 12.16 at perceived level. This indicates that the customers' expectation desired level is higher than the perceived level implying the lower supply of services by the sample banks when compared to the customers' expected level of services. Therefore quality gap is found in the services. Dimension wise, the highest service gap is being found in the case of Responsiveness (22.86) which indicates that it is the

foremost dimension of expectation of the customers. The service quality gap is found to be the least in the case of reliability (17.14).

7. HYPOTHESIS

- **H0:** "There is no significant difference between the expectations and perceptions of customers of either banks"



TABLE 7.1 COMPARISON BETWEEN EXPECTATION AND PERCEPTION OF CUSTOMERS OF BANKS

Sector of Bank		Mean Score	S.D.	Square of S.D.	Standard error	Z-value
Public Bank	Expectation	2.15	0.5261	0.2767	0.34271	7.1182
	Perception (Satisfaction)	2.69	0.4892	0.2393		
Private Bank	Expectation	2.38	0.4826	0.2329	0.4228	6.5941
	Perception (Satisfaction)	2.67	0.4237	0.1795		

Source: Computed from primary data

INFERENCE: The estimated value of Z-statistic is greater than standard value 1.96 at 5% level of significance for both sector banks. Therefore the null hypothesis is rejected and it is concluded that there is a significant difference between expectations and

perceptions of customers of both sector banks towards e- banking service.

H₀: There exist no significant association between Occupation and Preference towards E-Banking Services

TABLE 7.2 Association between Occupation and Preference towards E-Banking Services

E-Banking Services	Occupation							Total
	Employees	Business	Profession	Student	Housewife	Retired	Agricultural and others	
ATM	56	52	28	22	11	13	5	187
	29.9%	27.8%	15.0%	11.8%	5.9%	7.0%	2.7%	100.0%
Credit card	32	63	20	4	4	10	3	136
	23.5%	46.3%	14.7%	2.9%	2.9%	7.4%	2.2%	100.0%
Debit card	22	17	14	8	2	6	3	72
	30.6%	23.6%	19.4%	11.1%	2.8%	8.3%	4.2%	100.0%
Mobile banking	20	16	9	9	1	6	2	63
	31.7%	25.4%	14.3%	14.3%	1.6%	9.5%	3.2%	100.0%
Internet banking	6	14	1	3	1	1	1	27
	22.2%	51.9%	3.7%	11.1%	3.7%	3.7%	3.7%	100.0%
Other services	6	3	2	0	1	2	1	15
	40.0%	20.0%	13.3%	0.0%	6.7%	13.3%	6.7%	100.0%
Total	142	165	74	46	20	38	15	500
	28.4%	33.0%	14.8%	9.2%	4.0%	7.6%	3.0%	100.0%
Chi- square test	38.843							
Sig	.004							
Hypothesis	Rejected							

Source: Computed from primary data

INFERENCE: The calculated chi square value is (38.843) and p value (.004) at 5 per cent significance level is .004. The test proves to be significant. This means that there is significant association between the preferences of different occupational groups

towards E- banking services. Therefore, the null hypothesis (H₀) is rejected.



8. SUGGESTIONS

1. Banks should organize training programme to give proper training to customers for using e-banking services and create a trust in the mind of customers towards security and safety of their accounts.
2. Make their sites more user friendly. Customers should be motivated to use E-banking facilities more by providing a platform, from where the customers can access different accounts at single time without extra charge.
3. Banker should be made available internet banking facility in all rural branches to cover up the rural areas with ATMs, mobile and telebanking, so that the people in rural areas can also avail better services.
4. The public sector banks can improve their quality of services, as far as online banking activities are concerned, since they lack behind the private sector banks in this segment.
5. The private sector banks need to improve the level of transparency and also the level of safety and security of online transactions, since some of the customers are skeptical about the level of confidentiality of their transactions.
6. In general usage of E-banking by the customers is very low. An attempt by the banks for changing the same should be made by stressing on the benefits of E-banking.

9. CONCLUSION

The banking industry is becoming more and more multifaceted as a result of liberalization and globalization. With hostile marketing strategies for making business opportunities, banks have developed innovative products, keeping in view the needs of different classes of individual customers. Banks may pursue a feedback system to know the customers' expectations for improving the level of customer satisfaction to the maximum level. E-banking has become a necessary survival weapon and is fundamentally changing the banking industry worldwide. Today, the click of the mouse offers customers banking services at a much lower cost and also empowers them with unprecedented freedom in choosing vendors for their financial service needs. No country today has a choice whether to implement E-banking or not given the global and competitive nature of the economy. This study observes the perception level of customers towards the service quality by the public and private sector banks with the popular and extensively used instrument SERVQUAL consisting of five dimensions of service quality. From all of this, we have learnt that information technology has empowered customers and businesses with information needed to make

better investment decisions. At the same time, technology is allowing banks to offer new products, operate more efficiently, raise productivity, expand geographically and compete globally. E-banking is a borderless entity permitting anytime, anywhere and anyhow banking. This facilitates us with all the functions and many advantages as compared to traditional banking services. During this step of the process, controls that could mitigate or eliminate the identified risks, as appropriate to the organization's operations, are provided. With rapid advances in telecommunication systems and digital technology, E-banking has become a strategic weapon for banks to remain profitable.

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POMODORO TECHNIQUE

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ABSTRACT

You have heard about the pomodoro technique and want to know more.

Is it just another productivity hack? Does it really work? Will it work for you?

Implementing the pomodoro technique is simple and requires minimal setup. That is why it will work Wonders for your productivity. Grab your pen and paper, plan your day, then start your timer for 25 Minutes. Easy!

INTRODUCTION



Based on our Brain 2008 University of Illinois study showed that being tethered to your desk for long hours actually reduces your productivity; while regular short breaks keep you focused and energized.

I notice the truth of this study when I have my “desk days” at work. I lack focus. I procrastinate. Psychologists tell us that procrastination is a mechanism for helping us cope with anxiety.

There are generally three sources of procrastination:

- (1) Pressured by others, you are doing something against your will,
- (2) You feel pressured to be perfect, or
- (3) You are afraid of making a mistake.

The problem with procrastination is that it feels like a reward. It gives us a temporary relief from stress. To counter this, the Pomodoro Technique gives a reward for focused work. After completing a 25-minute pomodoro period, there is a small break. This break gives our brains small moments of offline time which in turn allows new logical insights. Doing work in a pattern like this – 25 minutes of focused work followed

by a five-minute break – provides a productive rhythm throughout the day.

Plan-Do-Check-Act

The Pomodoro Technique is also supported by the Deming-Shewhart Cycle (Plan-Do-Check- Act). If you are unfamiliar with this cycle, it’s crucial to Lean, Continuous Improvement and Agile.

What is Pomodoro technique?

Sometimes the hardest part of getting things done is just starting. However, often once you’ve started you realize the task was not as bad as you thought. If you find it hard to get started, try the Pomodoro technique (named after a tomato-shaped kitchen timer).

You will need:

- A timer.
- A task to complete (e.g. a course reading for your next lecture).
- Something nice to do in a 5-minute break (e.g. Have a coffee, watch a funny video).

Step 1: Choose a task to work on.

Step 2: Set a timer for 25 minutes. (Focus)

Step 3: Work solely on the task until the timer buzzes.

Step 4: When the timer goes, take a 5 minute break. (Short Break)

Step 5: Repeat.

Step 6: After four rounds have a longer break.



1. CHOOSE A TASK

You know that task you have been trying to tackle for ages? Let's do that.

2. FOCUS

Minimize distractions.

Close emails, shut social media, switch your phone to do not disturb, close the door. Learning to manage distractions is one of the key skills the pomodoro technique will teach you, it is only 25 minutes after all.



3. WORK

Pick a task, start a 25-minute timer and get to work. When using the pomodoro technique there is no concept of pause, stick to your chosen task for the full session and note any distractions you need to come back to.

4. SHORT BREAK

Well done. Session complete. Step away from your desk for five minutes, clear your mind, stretch your legs or grab refreshment.

5. REPEAT



Start the timer again for another session.

6. LONG BREAK

After your fourth session take a 20 minute break and come back completely refreshed.

How can this technique help us?

It helps you breakdown your tasks into manageable chunks and rephrases your work. Rather than thinking "I have to write 1,000 words in 2 hours", you can say "I'm going to spend 25 minutes working on a paragraph" (and repeat).

How the Pomodoro will change you

- By applying the Pomodoro Technique you can Handle interruptions
- No more mistakes due to lack of concentration.
- No more wrong estimates, rework, stress and overtime.
- Reduce the length and number of meetings
- No more long, exhausting and useless meetings.
- Reduce estimation errors
- learn to simplify and organize tasks
- No more wrong estimates on complex, undefined and uncertain tasks.

- Improve motivation by improving the content of work
- learn to understand the effort a task will take, reduce the complexity of tasks that need doing, organize your time
- No more lack of confidence, lack of responsibility and lack of trust between team members.
- Transform time from being an enemy to being an ally in order to achieve your goals
- take regular breaks, learn to observe yourself and your team and improve your work process
- No more work under pressure.
- No more tensions between team members.
- No more fear of being accountable.
- Meet deadlines without time pressure
- learn to transform a complex goal into a series of simpler goals to be reached and hence increase your motivation, the precision of the estimates and the probability of final success
- No more missed deadlines and costly delays.

Variations

There are many variations on the Pomodoro Technique. These allow individuals to tailor the principles of the Pomodoro Technique to better suit their personal working style.

Some variations include:

Work in 90 minute time periods. Rather than a 25 minute focus period, work in 90 minute blocks. This reflects a natural concentration cycle

Work in natural time periods. There may be natural time markers in your life - for example the period between meetings, or the time until your kids or partner come home, or the time until the dishwasher finishes. Use these to define focus periods.

Flowtime. Monitor your natural productivity periods, and from this data work out the best productivity system for yourself.

All of these approaches preserve the core Pomodoro Technique principle of working in specific time blocks - but they adjust the periods to better suit individual needs.

Who doesn't it work for?

The pomodoro technique doesn't work for people who can't see themselves taking regular breaks. Although you can alter your session time and break to make them longer if that suits you. Breaks promote mental agility, focus and flow, without them you risk burnout.

Also when using the pomodoro technique you aren't supposed to pause or context switch (no



distractions), so you need to keep this in mind when considering the technique.

Don't put your goals off any longer.

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BASIC PROCESSES OF WORD-FORMATION REFLECTION OF SYNONYMIC SERIES OF THE RUSSIAN LANGUAGE

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ANNOTATION

The article considers the organization of the synonymous relation of the Russian language. The phenomenon of word forming reflection which is connected with a wider notion of word formation synonymy plays a fundamental role.

KEY WORDS: *reflected synonymy, homonym, antonym, synonymous derivation.*

ОСНОВНЫЕ ПРОЦЕССЫ СЛОВООБРАЗОВАТЕЛЬНОГО ОТРАЖЕНИЯ СИНОНИМИЧЕСКИХ РЯДОВ РУССКОГО ЯЗЫКА

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Аннотация. В статье рассматривается организация синонимичных отношений русского языка, где фундаментальную роль играет явление словообразовательного отражения, которое связано с более широким понятием словообразовательной синонимии.

Ключевые слова: отраженная синонимия, омонимия, антонимия, синонимическая деривация.

Для русского языка с чрезвычайно развитой системой словообразования не менее важен процесс словообразовательного отражения, носящий формальносемантический характер. Самыми подходящими объектами для изучения этого процесса являются синонимические гнезда.

Целями и задачами нашей статьи является определить, обобщить и систематизировать накопленный материал относительно синонимических гнезд. Потому что именно в составе синонимичных гнезд реализуются основные процессы словообразовательного отражения синонимических рядов.

Как в области антонимии, в области синонимии центральным для понимания смысловой природы производных синонимов является понятие семантического отражения, предложенное в общем виде В.В.Виноградовым (1968) по отношению к омонимам. Напомним, что оно трактуется как распространение и специфическое развитие (воспроизведение) семантики исходных (производящих) слов в производных словах. [1] Анализ основных семантических отношений в системе производной лексики, связанный с понятием отражения, проведен В.В.Виноградовым наиболее полно в одной из его последних работ, посвященных



омонимии. Он подчеркивал, что омонимия в подавляющем большинстве производных слов является омонимией «отраженной» (Виноградов, 1968). Так, например, омонимия отглагольных существительных «в преобладающем большинстве случаев является отглагольно-отраженной. В ней сказывается и воспроизводится омонимия производящих глаголов... Она чаще всего возникает в результате производства омонимов-существительных от ярко выраженных омонимов-глаголов» (Виноградов, 1968)[1].

В работе А.Н. Тихонова (1989) значительное внимание уделяется проблемам взаимодействия языковых ярусов, явлениям отраженной синонимии, омонимии, антонимии, соотношению словообразовательных и синонимических и антонимических гнезд.[2] В аспекте семантического и словообразовательного отражения синонимический фонд русского языка предстает как динамическая, подвижная система, объем которой, конечно, сокращается за счет регулирующего воздействия литературного языка (Апресян, 1995), но в то же время постоянно пополняется.

Ю.Д. Апресян (1995) в качестве одного из источников лексической синонимии отмечает «стремление языка к обновлению своих лексических средств, приводящее к возникновению точных синонимов, полнее и яснее всего проявляется в сфере экспрессивной лексики». По словам Ю.Д. Апресяна, «развитие у слова переносных и фразеологически связанных значений — еще один процесс, порождающий семантически точную синонимию». Указывается также еще один источник синонимии – процесс заимствования. На наш взгляд, нельзя сбрасывать со счетов как источник синонимии и жаргонную лексику, стремительно сближающуюся в последние десятилетия с «литературным просторечием».

Однако словообразовательные процессы в качестве одного из источников лексической синонимии Ю.Д. Апресяном (1995) не приводятся, по крайней мере эксплицитно, хотя отмечается, что «недостижимыми для регламентирующего воздействия процессов семантической дифференциации являются и многие словообразовательные процессы, приводящие к возникновению в языке так называемых однокоренных, или однокорневых, синонимов».

Ю.Д. Апресян вслед за С. Крешем рассматривает «процесс синонимической аналогии, иначе называемый синонимической деривацией, или синонимической иррадиацией. Если, допустим, рассматриваемая нами тенденция привела к появлению у слова бить нового

значения 'стрелять' (ср. бить по наступающим короткими очередями), то оно же может развиваться и у его (квази) синонимов колотить, лупить и т. п.» (Апресян, 1995). Указанный процесс можно отнести к области чисто семантического отражения, однако для русского языка с чрезвычайно развитой системой словообразования не менее важен процесс словообразовательного отражения, носящий формальносемантический характер. Самыми подходящими объектами для изучения этого процесса являются синонимические гнезда.

Под синонимическими гнездами мы понимаем фрагменты словообразовательных гнезд, содержащие межгнездовые синонимы. Чаще всего синонимические гнезда возглавляют непроизводные синонимы, например, бить, колотить, лупить; крутить, вертеть; прыгать, скакать; скупой, жадный; грусть, тоска, печаль и др. Именно в составе синонимических гнезд реализуются основные процессы словообразовательного отражения синонимических рядов.

В «Словаре синонимов русского языка» под ред. А.П. Евгеньевой (1971) приводятся следующие синонимические ряды (СР) глагола бить: Бить, колотить, молотить (разг.), гвоздить (разг.), лупить (разг.) (Евгеньевой, 1971). Бить, колотить, колошматить (разг.), лупить (разг.), лупцевать (прост.), гвоздить (прост.), молотить(прост.), костылять(прост.), утюжить (прост.) (Евгеньева, 1971). Бить, разбивать, колотить, раскалывать, кокать (прост.) (Евгеньева, 1971). «Наиболее разветвленная система отраженной синонимии характерна для отглагольных гнезд. Важную роль здесь играет префиксация на 1 ступени словообразования. На базе префиксальных образований совершенного вида создаются перфективные возвратные глаголы с суффиксальными формами несовершенного вид от которых, в свою очередь, широко и почти регулярно образуются формы страдательного залога, имена действия».

На 1 ступени образуются также возвратные глаголы (у которых могут быть приставочные производные), многократные глаголы, имена действия, другие имена существительные (названия предметов и т.п.), имена прилагательные различных словообразовательных типов».

А.Н. Тихонов (1989) иллюстрирует вышесказанное сопоставлением межгнездовых синонимов в СГ бить – колотить, причем синонимические гнезда составляют фрагменты чрезвычайно разветвленного гнезда бить и большая часть СГ колотить (Тихонов, 1989). Гнезда бить и колотить целесообразно сравнить с гнездами других непроизводных глаголов,



входящих в приведенные выше СР, например, с СГ кокать (прост.) (Пардаев, 2013).

Данное СГ воспроизводит в еще более сокращенном виде отраженную синонимию СГ бить и колотить (только глагольный блок) и содержит всего два оригинальных по сравнению с ними деривата: глагол со значением однократности кокнуть и его префиксальное производное прикокнуть. Причиной сужения словообразовательного потенциала в данном случае служат снижение стилистической окраски и немногочисленность значений исходного слова, причем переносное значение «убить, прикончить» отражается только в дериватах прикокнуть и укокать.

Напротив, СГ лупить входит в приведенные выше СР только своими переносными значениями «сильно бить, колотить, сечь кого-л.» и обозначения любого интенсивного действия (Евгеньева, 1971). В качестве исходного, номинативного значения глагола лупить зафиксировано значение «очищать от коры, кожуры, скорлупы» (Евгеньева, 1971), и именно это значение служит базой для возвратного глагола лупиться, префиксальных глаголов вылупить, залупить, налупить 1. Очистить посредством лупления, надлупить, облупить, отлупить 1. Отделить посредством лупления, перелупить 1. Отделить луплением все или многое, полупить 1. Лупить некоторое время, полупить 2. Очистить от скорлупы что-л. в каком-л. количестве, подлупить, слупить.

С указанными выше переносными значениями глагола лупить связаны отраженные синонимы лупка (ср. битье, побои), луплений (ср. битый), излупить (ср. избить), отлупить 2 – избить. На базе 1-го значения образуется глагол лупцевать и его производные лупцеваться, лупцевка, взлупцевать, перелупцевать. Таким образом, в степени и характере отражения синонимии исходных слов большую роль играет не только фактор однозначности или многозначности исходных синонимов, но и соотношение номинативных и переносных значений доминанты других членов СР. Совпадение номинативных значений предопределяет развернутую межгнездовую синонимию, соотношение номинативного значения доминанты СР и переносных значений других членов СР отражается в меньшем количестве межгнездовых синонимов. Однако следует отметить, что сам факт синонимичности глаголов активизирует процессы отглагольной деривации, словообразовательная активность гнезда доминанты способствует активному процессу отражения семантики и структуры производных этого гнезда в гнездах других членов СР.

Таким образом, в организации синонимических отношений русского языка фундаментальную роль играет явление словообразовательного отражения, которое связано с более широким понятием словообразовательной синонимии. Полностью соглашаясь с Ю.Д. Апресяном (1995) [3] в том, что к синонимическим отношениям нецелесообразно приравнять синтаксические дериваты и их производные (поддержать – поддержка, равный – равенство, быстрый – быстро), мы не можем согласиться со следующим выводом: «Синонимия – нерегулярная, чисто лексическая категория: в естественном языке они даны в готовом виде и не могут быть образованы по каким-либо продуктивным моделям» (Апресян, 1995). [5] Да, действительно, в русском языке не существует отдельного деривационного механизма для образования синонимов, однако широко распространенная вариативность основ и аффиксов, синонимия формантов, явление словообразовательного отражения играют роль регулирующих факторов русской синонимии.

Выводы. Следует еще раз подчеркнуть, что словообразовательные синонимы в то же время являются полноценными лексическими синонимами. Для языков с многократным преобладанием производной лексики над непроизводной, для которых характерна и множественность способов словообразования и морфонологических преобразований основ словообразовательная система является мощным порождающим механизмом лексической синонимии. Основным ресурс пополнения лексического фонда русской синонимии – безусловно, словообразовательные процессы.

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NATIONAL AND UNIVERSAL FEATURES OF THE ARTISTIC IMAGES

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ABSTRACT

The article talks about human experiences of the image of the thief, which is considered negative, emphasizing the sides of the IBA in spiritual and educational terms, arising from the ideological-philosophical, artistic-aesthetic ideal of the writer.

KEY WORDS: Image, ideal, ideological-philosophical intention, artistic-aesthetic effect, spiritual-educational aspect.

INTRODUCTION

The theme of theft and honesty has long played an important role in social life. In studying the issue of creating the image of a thief in the history of world and Uzbek literature, it is important to refer to our past literary heritage. In this regard, the oral poetry of the people is an important source.

In folk epics we can also observe the image of a thief and the expression of different attitudes towards him. The roots of the events surrounding the image of the thief often go back a long way. In the history books and stories created in ancient times, one can often find the image of a thief who disturbed the peace of the people and endangered their property.

One of the reasons why people hate thieves in this way in their oral poetic work is that they have been involved in the life of society at all stages of historical development.

In folk tales, the characteristic aspects of the image of the thief are revealed against the background of more and more different customs and rituals. For example, the plot of the fairy tale "The Bride and the Thief" is very interesting, and it shows that the feelings of courage and bravery are typical of some thieves.

Our people have a saying "Salt fee". They say, "Forty days of salutation to one place where you drank salt." Responding badly to people who do good is described by the phrase "spitting in the salt". There is another folk tale that embodies these concepts.

According to him, three thieves dig a lahm to enter the storehouse of a rich man. One of them enters the warehouse to find out what is in the warehouse. A thief who thinks that what looks white in the dark is sugar licks it. It's salt, not sugar. The young man immediately returns and rescues the partners from theft as well. When asked why, he said, "I unknowingly tasted the rich man's salt. It's not fair to look at his property anymore." Many more such examples and specimens can be cited.

In short, the depiction of events related to thieves in folk tales and epics plays an important role in understanding the everyday life, dreams and worldviews of our ancestors. Advanced educational ideas have also been widely promoted by exaggerating the portrayal of such heroes with fantastic colors. Most importantly, the masterpieces of folklore have laid the groundwork for a large-scale, comprehensive depiction of the image of a thief in the written literature, an artistic study of the layers of the psyche.

Rashid al-Din Fazlullah Hamadani (1247-1318) was a great encyclopedic scholar of his time. Although his profession was medicine, his works on history and theology brought him fame. In particular, his book "Jome'-ut tavorix" has been of interest to scholars for many centuries. The literary fragments and legends in the work are still of great educational value. The play also contains stories and legends related to our topic. One of them said that while all the guards were asleep drunk, a man stole a golden



cup from the camp. No matter how hard they searched, they couldn't find a glass. Hakan commanded: "Declare: If the man who took the cup brings it back, he will be shown mercy, and he who asks will be given." The next day the thief brought a golden cup. Ask him, "Why are you so rude?" they asked. The thief said, "I did it to warn Mr. Hakan, the ruler of the world, not to trust the guards." When Haqqan heard this, he said, "We forgive him, it is not possible to kill such a person." [2.255]

DISCUSSION AND ACKNOWLEDGEMENTS

Alisher Navoi's literary heritage also includes plates and stories that refer to the image of a thief. For example, in the poet's epic "Lison-ut tayr" there is a story about a young man who was accused of theft and had his arm amputated. But the great thinker and poet did not set out here to condemn the thief's actions, or to analyze the decisions of the judges and magistrates. The ideological purpose of this story is a conclusion similar to the proverb "Who is a doctor - a experienced doctor." The thing is, the young man jumped out of the crowd as he pressed his severed arm to his chest with his healthy hand. A curious man follows the young man. He saw many people with amputated arms living in the ruins on the outskirts of the city. The young man screamed as he hugged them. The figs of the other amputated ones also go up into the sky and begin to weep.

Navoi's Nasayim-ul-Muhabbat tells the story of a young man who repents of stealing. While one of the famous sheikhs was praying, a hole opened in the room and a thief entered. The sheikh continues to pray without paying attention. When the thief puts the bisot in a large knot and tries to get out of the hole, the hole narrows. The sheikh then gets up, opens the door, and tells the young man that he can go out through the door. Confused by such unexpected generosity, the thief fell at the feet of the sheikh, apologized, and repented of his deeds. According to Navoi, any evil person can be guided by kindness and generosity [3.51-131].

Following in the footsteps of classical traditions, in modern Uzbek literature, many artistic paintings have been created, revealing new aspects of the image of a thief. Well-known artists such as Abdullah Qadiri, Ghafur Ghulam, Abdulla Qahhor renewed this image against the background of time, epoch, environment, showed mastery in revealing the aspects of spirit and character.

We can also observe relevant aspects in the examples of world literature. A.P. Denis Grigorev, the protagonist of Chekhov's *The Evil Man*, removes the nut that secures the rail sleepers to the rails for use as a hook. He is exiled for such theft, which can lead to the destruction of people. But Denis still doesn't understand what it's like to steal a nut: "How do you stand up? I never have time, I have to go to

the fair ... To prison ... why ... if I have not committed a crime ... "[6. 187] Among the short stories and short stories included in O. Henry's "Gift of Witches" is a story called "Mirshab and Munojot". describes as the ocean. This work is an artistic and philosophical generalization of various changes, protests, rebellions and experiences in the psyche of the image of a thief and a thief.

"Sopi's winter plans weren't that high. He did not dream of traveling to the southern skies or the Mediterranean. If he had only spent three months in prison on the island, that was the only thing he longed for. Sopi needs nothing more if she has a stable shelter and food to eat for three months, and if she is safe from the pursuit of Borey by the police. " The play also raises issues of time and space, environment and reality, which directly affect his psyche as one of Sopi's pressing problems. "Sophie hated the kindness shown to the poor of the city. In his view, the law was more merciful than valine. There were thousands of public and private charities in the city, from which they could obtain shelter and food according to their modest needs. But the charitable giving bored Sopi's proud spirit. Even if he did not have the money for any donation taken from the hands of the valinemats, he would have to repay it with humiliation. Wouldn't it be better to have a prison as a place to live? "

Sopi struggles a lot to achieve her goal. He wants to go into a restaurant and eat to his heart's content, and then say he doesn't have dough in his pocket. Then the guards would have arrived at once to take him away. But the restaurant staff, who knew who he was from his dirty clothes, pointed to the street as soon as he stepped inside.

Sopi, who dreams of going to jail, uses several other methods: smashes the window of a luxury showcase with a stone. But the policeman, who arrives soon, chases after someone else without hesitation from Sopi, who is calm. Go into the kitchen, which is relatively cheap, and eat until you are full. He says he doesn't even have a baby in his pocket when the bill needs to be made. But as he expected, instead of calling the policeman, the restaurant staff beat him to death and threw him into the street.

MATERIALS AND METHODS

Deliberately teasing a woman he meets on the street also does not give the expected result. On the contrary, the woman herself was light-footed and awaited a similar compliment. The policeman standing nearby doesn't even look at them.

The policemen, who see him getting drunk, shouting and singing as much as he can, think he is one of the football fans: if his favorite team wins, he will be happy!

He steals an umbrella from a tobacco shop and waits for its owner. The goal is the same: if the



victim calls the police and sends him away. But the owner of the umbrella himself found the cloth somewhere. Sopi thinks he is the real owner of the umbrella, apologizes and leaves.

At the end of the novella, Sophie's adventures come to an unexpected end.

As one of the factors in showing the evolution of the thief's spiritual world, the novel depicts the essence of religious beliefs.

As he approached the church on the corner, he heard a melody called "Sunday prayer" coming from inside. "The prayer that the organist was playing nailed Sopi to the cast-iron fence, because she had heard it many times before - in her life, when she had a mother, a flower, bold plans, things like a brother, pure thoughts, pure collars. Under the influence of the music pouring out of the window of the old church, a strange change suddenly took place in Sopi's heart. He was frightened when he saw the bottomless ravine where he had fallen. Dignified days, frustrated hopes, shattered potential, and pastoral intentions were overlooked. That's what his life was all about.

His heart began to pound with that new mood. He suddenly found the strength to fight evil. He escapes from the abominable swamp, rises again, overcomes the evil that has enslaved him. He wants to be human."

But an unexpected thing happens at a time when he is embarrassed by his ugly past, the ugly consequences of his theft activities, and has just decided to start a whole new life. The guards, who did not see him when he stole, who did not pay attention to him when he made fun of him, and who did not notice his annoyance, now hold him by the collar when he decides to mobilize his life for good. He glanced around and saw a flat-faced policeman in front of him.

"What are you doing here?" Asked the policeman.

"Myself," replied Sopi.

"Well, let's go," said the policeman.

The judge sentenced the island to three months in prison the next morning.

In addition to embodying realistic scenes before our eyes, the author also captures the human problems and contradictions in the character of the image of a thief. In particular, the play raises issues of time and space, environment and reality, which directly affect the psyche of the thief as one of the complexities of his spirituality. Examples like this can be found in many more examples from world literature. O'Henry's *The Compassionate*, Najib Mahfouz's *The Thief and the Dog*, n. Dumbadze's *"White Flags"*, M. Gorky's *"Chelkash"* stories, U. In Faulkner's novel *Thieves*, we can find different interpretations of the image of the thief.

CONCLUSION

In conclusion, it can be said that the image of a thief, which seems to be a negative image, can sometimes become an important means of spiritual and enlightenment education with its ideological and philosophical intentions, unexpected spiritual and spiritual aspects in clarifying the artistic and aesthetic position of writers.

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THE PROBLEM OF APPROXIMATING SIGNALS BASED ON MODELING OF WAVELET - HAAR TRANSFORMATION

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ANNOTATION

This paper discusses the problem of digital processing of signals and images in computer networks, in the process of signal transmission, expressing them as an unknown function and approximation using a discrete Wavelet-Haar basis function. The calculation of the spectral coefficients of the signals and the mathematical expressions of the signal recovery are given. In order to increase the speed of operation, the law of derivation of coefficients from each other by grouping and systematization of spectral coefficients has been identified.

KEYWORDS: Signal, basic function, Wavelet-Haar, algebraic polynomial, approximation, spectral coefficient, systematization, register.

INTRODUCTION

As a result of the rapid development of computer technology in the world, new issues of digital processing of signals and images are emerging. Alternatively, effective mathematical methods and algorithms are needed to transmit signals and images over a network and allocate them less space in memory. In solving these problems, a number of results have been obtained using basic functions such as Fure, Walsh-Adamar, Haar, Wavelet.

A number of scientific studies have been conducted around the world on the modeling of digital processing of signals and images using basic functions, compression of signals, filtering, modification, recovery and creation of effective calculation algorithms for noise isolation from signals. A.Haar, S.Mallat, I.Daubeschie, Ch.Chui, James Walker, A.Spanias, Bill Lewis, M.Vetterli, Plamen Krastev, A.N.Yakovlev, N.M.Astafeva, L.A.Zalmanzon, M.A.Ivanov, M.A. Klochkov and other scientists engaged on the creation and improvement of mathematical models of digital signal processing in computer systems, their rapid algorithms and software. In the Republic of Uzbekistan, scientists like F.B. Abutaliev, H.N. Zaynidinov, M.M. Musaev, U. Hamdamov, F. Rakhmatov and others conducted research.

This paper discusses the problem of approximating signals using the discrete Wavelet-Haar variation in solving the problems listed above. The main purpose is to express the unknown $f(x)$ incoming signal in the form of a function, to bring it to the following form

$$F(x) = \sum_{j=0}^k A_j \cdot x^j \quad (1)$$

and to show certain advantages in the approximation process by comparing the changes. [4].

Wavelet-Haar direct and inverse variation is in the $[0, 2^n - 1]$ interval range:

$$v_s = 2^{-n+m} \sum_{x=0}^{2^n-1} \varphi(x) \psi_{m,s}(x),$$

$$\varphi(x) = v_{0,0} \psi_{0,0} + \sum_{m=0}^{n-1} \sum_{s=1}^{2^m} v_{m,s} \psi_{m,s}(x)$$

herein $0 \leq n < \log_2 N$ and $m=0,1,2,\dots,n-1, 1 \leq s \leq 2^m$.

$\psi_{m,s}(x)$ - The basic function of the Wavelet-Haar transformation:

$$\psi_{0,1}(x) = \begin{cases} 1, & 0 \leq x < \frac{1}{2}, \\ -1, & \frac{1}{2} \leq x < 1, \\ 0, & x < 0, \quad x \geq 1. \end{cases}$$

or

$$\psi_{0,1}(x) = \begin{pmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 & -1 & -1 & -1 & -1 \\ 1 & 1 & -1 & -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 1 & -1 & -1 \\ 1 & -1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & -1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & -1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

$f(x)$ the signal spectra given in an unknown form are calculated using the following formula for N values of the signal spectra on the basis of Wavelet-Haar[4]:

$$v_s = \sum_{j=0}^k b_s \cdot A_j, \quad (2)$$

herein $s = 0,1,2,\dots,N-1$,

k - Algebraic polynomial level; v_s - signal spectral coefficient;

b_s - base function matrix; A_j - algebraic polynomial coefficient.

Using this expression (2), the following expressions for finding the Wavelet-Haar spectral coefficients for $N=8$ and $k=2$ are obtained:

$$\begin{aligned}
 v_0 &= \frac{35}{2^7} A_2 + \frac{7}{2^4} A_1 + A_0 & v_4 &= -\frac{1}{2^7} (A_2 + 2^3 A_1) \\
 v_1 &= -\frac{7}{2^5} A_2 - \frac{1}{2^2} A_1 & v_5 &= v_4 - \frac{A_2}{2^5} \\
 v_2 &= -\frac{1}{2^6} (3A_2 + 2^3 A_1) & v_6 &= v_5 - \frac{A_2}{2^5} \\
 v_3 &= v_2 - \frac{A_2}{2^3} & v_7 &= v_6 - \frac{A_2}{2^5}
 \end{aligned} \tag{3}$$

Since a number of elements of the Wavelet-Haara base matrix form a group

$$v_0 = v_{00}, v_1 = v_{01}, v_2 = v_{11}, v_3 = v_{12}, v_4 = v_{21}, v_5 = v_{22}, v_6 = v_{23}, v_7 = v_{24}$$

it is possible to obtain a general expression of the coefficients depending on the groups, using the following definitions and expressions of the Wavelet-Haara spectral coefficients above:

$$v_{mj} = -2^{-(m+2)} A_1 + 2^{-(m+5)} (1 + 2^{3-m} (1 - 2j)) A_2 \tag{4}$$

herein m -group ($m=0,1,2,\dots$), j - m - the order of the coefficients in the group ($j=1,2,\dots$). Wherein v_{00} – the coefficient is found from expression (6). This can be seen from expression (4), v_{mj} – it follows that the coefficients are structured, i.e. it is possible to generate one from the other. In the presence of a spectral coefficient, the restoration of the function is performed by the expressions in Table 1.

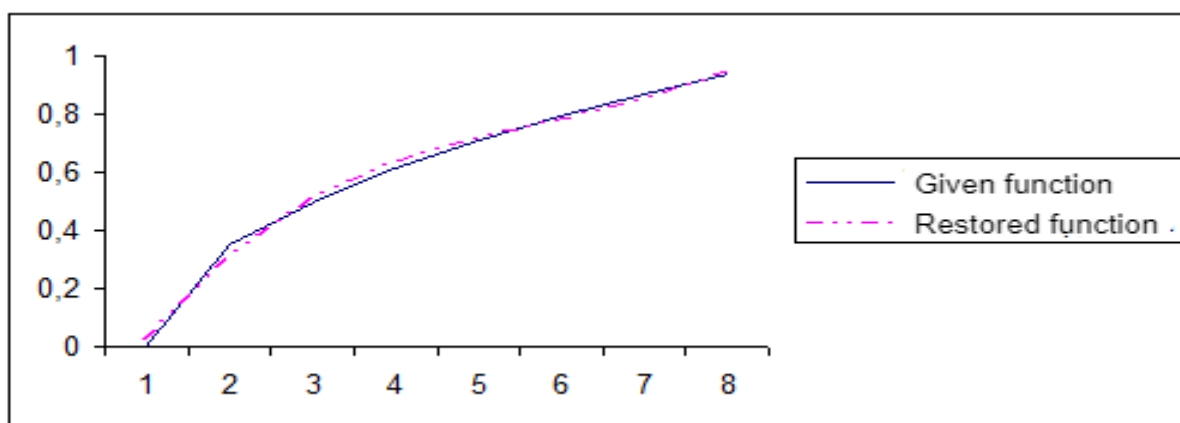
Table 1
Find the algebraic polynomial coefficients

for $k = 2$	for $k = 3$
$A_0 = v_0 - \frac{35}{2^7} A_2 - \frac{7}{2^4} A_1$	$A_0 = v_0 - \frac{49}{2^8} A_3 - \frac{35}{2^7} A_2 - \frac{7}{2^4} A_1$
$A_1 = -\frac{9}{2^3} A_2 - 2(2v_1 - v_2 + v_3)$	$A_1 = -\frac{89}{2^7} A_3 - \frac{7}{2^3} A_2 - 2^2 v_1$
$A_2 = 2^4(v_2 - v_3) - 2^3(v_4 + v_5 - v_6 - v_7)$	$A_2 = 2^3(v_3 - v_2) - \frac{2^4}{21} A_3$
	$A_3 = \frac{2^7}{3} (v_1 - v_2 - v_3)$

As an example, the function $\varphi(x) = \sqrt{x}$ in the interval range $[0; 1]$ the expression in the form of an algebraic polynomial for $N = 8$ when $k = 3$ is given in Table 2.

Table 2

calculation of spectral and polynomial coefficients of function $\varphi(x) = \sqrt{x}$						max δ (%)	σ (%)
Nº	x	$\varphi(x)$	v_k	A_k	$\bar{\varphi}(x)$		
0	0	0	0,5956	0,68006	0,01899	0,5	0,2
1	0,125	0,35355	-0,229	0,081	0,31123		
2	0,25	0,5	-0,19	-0,016	0,50814		
3	0,375	0,61237	-0,076	0,00421	0,635		
4	0,5	0,70711	-0,177		0,71707		
5	0,625	0,79057	-0,056		0,7796		
6	0,75	0,86603	-0,042		0,84787		
7	0,875	0,93541	-0,035		0,94714		



Pic1. $\varphi(x) = \sqrt{x}$ function and its approximation

CONCLUSION

It can be seen that the Wavelet-Haar base matrix consists of the numbers

-1 and 1. In addition, the use of (2^n) in the grouping of spectral coefficients by expression (4) makes it possible to replace the multiplication operation with the pushing of numbers within registers. This increases the processing speed.

Given the spectral coefficients, in the calculation of polynomial coefficients by expression (4), the law of derivation of coefficients from each other was determined, reducing the reference to systematized memory within the group. It is advisable to use this method in digital processing of stationary signals. The use of these expressions leads to the effective solution of issues such as signal approximation, filtering and compression, as well as transmission over the network.

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GROWTH, DEVELOPMENT AND PRODUCTIVITY OF PHOTOSYNTHESIS DEPENDING ON THE DEPTH OF PLOWING

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РОСТ РАЗВИТИЕ И ПРОДУКТИВНОСТЬ ФОТОСИНТЕЗА В ЗАВИСИМОСТИ ОТ ГЛУБИНЫ ВСПАШКИ ПОЧВ

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АННОТАЦИЯ: Проведенные опыты показали, что корневой системы хлопчатника развивается с увеличением глубины вспашки почвы.

КЛЮЧЕВЫЕ СЛОВА: Общая протяженность, поглощающая поверхность, мощность развитие, надземных органов, коэффициент поглощения, продуктивность фотосинтеза, подпахотный горизонт, количество пасок.

ВВЕДЕНИЕ

Рост и развитие хлопчатника от целого ряда многочисленных взаимосвязанных факторов, таких как степень и качество засоления, агрохимические свойства, микробиологическая деятельность, плодородие и уровень питания, степень эродированности, водно-физические свойства почв.

Определения общей протяженности и поглощающей поверхности корневой системы показало, что обогащение верхних горизонтов питательными элементами обеспечивало более мощное развитие корней в первой половине

вегетации, корни лучше разветвлялись, быстрее проникали в глубину. Во второй половине вегетации рост мелких деятельных корней в нижних горизонтах был интенсивным. Так, в бутонизацию длина в горизонте 0 – 25 см по контролю составила 84,3 м, по вариантам 39,0, 34,5 и 45,6 м. В фазу цветения в верхнем слое растения по этому показателю также отставали от контроля (соответственно 94,8, 105,0 и 109,3 м против 163,5 м). Но в горизонте 25 – 60 см общая протяженность корней была значительно больше – соответственно 158,1; 223,0 и 217,5 м против 150,0 м в контроле. В конце вегетации в условиях лизиметра общая протяженность корневой



системы доходила до 700 м при общей поглощающей поверхности 6000 – 8000 см²; динамика величины поглощающей поверхности

по вариантам опыта имела те же темпы, что и общая протяженность корней.

Данные о развитии надземных органов и корней хлопчатника и о коэффициенте поглощения питательных элементов в зависимости от глубины и способов внесения удобрений

№	Показатель	Контроль и первый вариант	Второй вариант	Третий вариант	Четвертый вариант
		Глубина внесения, см			
		0 - 25	25,40	0 - 40	25, 40, 60
		Способ внесения			
		Перемешивание	Послой-ное	Перемешивание	послойное
Фаза цветения					
1.	Биологический урожай	31,8	32,0	31,6	33,9
	Вес корней	28,3	29,1	30,0	35,0
	г	6,5	6,0	6,3	6,4
	%	20,6	18,9	20,0	20,7
	Коэффициент продуктивности	5,0	5,4	5,0	5,0
	Коэффициент поглощения, мг на I г корней				
	N	129,9	122,0	126,8	106,8
	P	46,6	51,7	50,3	38,9
	K	100,0	116,2	105,5	88,1
Конец вегетации					
	Биологический урожай	190,9	199,7	215,4	206,6
	Вес корней				
	г	12,1	10,8	12,0	10,3
	%	6,3	5,4	5,5	4,9
	Коэффициент продуктивности	15,8	18,5	18,0	20,0
	Коэффициент поглощения, мг на I г корней				
	N	196,4	235,3	241,5	274,5
	P	126,4	170,0	147,8	167,4
	K	185,6	216,0	211,7	235,8

Коэффициент продуктивности по вариантам опыта в бутонизацию и в начале цветения существенных различий не имел. Повышение продуктивности корневой системы при внесении части удобрений в нижние горизонты отмечалось со второй половины вегетации.

Коэффициент поглощения питательных веществ корневой системой изменялся в зависимости от фазы развития и от содержания в почве отдельных питательных элементов. По коэффициенту поглощения на первом месте стоит азот, втором – калий и последнем – фосфор.

Поглощение азота и калия достигает максимума в фазу плодообразования, а фосфора – в фазу созревания. Это объясняется тем, что с массового плодообразования фосфор в составе растительных тканей в меньшей степени подвергается реутилизации по сравнению с азотом и калием, поэтому для синтеза фосфор органических соединений в этот период значительная часть фосфора поступает из почвы.

Повешенное развитие корневой системы хлопчатника при углублении пахотного слоя положительно сказывается на накоплении органических веществ в почве, особенно в



подпахотных горизонтах, которые очень бедны гумусом. Так, в пахотном горизонте (0 – 30 см) органической массы корней при вспашке на 40 см и 60 см оказалось в 1,4 – 1,5 раза больше, чем при обычной пахоте. В слое 30 – 60 см при обычной пахоте масса корней составляла 0,94 ц/га, при глубокой вспашке (на 40 см и 60 см) – соответственно 1,30 и 1,65. В горизонте 60 – 100 см разница почти удваивалась.

Основная масса недейтельных корней во второй половине вегетации сосредоточена в горизонте 0 – 30 см. при углублении и удалении от главного корня длина этих корней резко уменьшается. В нижних горизонтах с 30 до 60 см их общая длина составляет не более 25%, а в горизонтах глубже 60 см – только 13%.

Количество пасоки, выделенной корнями I растения, и содержание в ней азота, фосфора и калия в зависимости от глубины вспашки.

№	Фаза развития	Вариант		
		Первый – обычная вспашка на 30 см	Второй – двух ярусная вспашка на 40 см (0 – 20, 20 – 40)	Третий–двух ярусная вспашка на 30 см + рыхление до 60 см (0 – 15, 15 – 30+30)
Выделенная пасока, мл				
1.	Цветение	9,7	12,3	14,1
2.	Плодообразование	9,8	11,1	12,2
3.	Созревание	8,0	8,7	9,9
Азот органический, мг				
1.	Цветение	0,43	0,95	1,23
2.	Плодообразование	0,14	0,11	0,29
3.	Созревание	0,40	0,41	0,54
Азот минеральный, мг				
1.	Цветение	1,25	2,12	3,03
2.	Плодообразование	1,51	1,71	2,16
3.	Созревание	0,25	0,44	0,59
Фосфор общий, мг				
1.	Цветение	1,39	1,84	3,33
2.	Плодообразование	2,79	3,55	3,97
3.	Созревание	2,85	1,80	3,27
Калий, мг				
1.	Цветение	1,63	3,17	3,75
2.	Плодообразование	0,72	0,74	0,85

Установлено, что уровень содержания азота, фосфора и калия в корнях до начала цветения возрастает, в последующие фазы заметно снижается, а количество кальция увеличивается.

При исключении азота из корнеобитаемой среды содержание его в корнях по всем фазам развития хлопчатника было ниже, чем при его внесении. Такая же закономерность отмечена и в отсутствии фосфора и калия в питательной среде.

Таким образом рост, развитие корневой системы хлопчатника по профилю почв находятся в полной зависимости от содержаний питательных элементов по горизонтам почв. Выявлено, что содержание азота, фосфора и калия в корнях до начала цветения возрастает,

после чего азот снижается кальций увеличивается.

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RETROSPECTIVE PLOT FEATURES

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ANNOTATION

The article analyzes the theoretical views of Russian and Uzbek literary critics on the terms "retrospective plot", "functions of the retrospective plot", their types, features, application in fiction.

KEYWORDS: *plot, retrospective, episode insertion, type, chronological, concentric, return to the past (revival of the past), look into the past, retro, classification, hero, event, function, type, work of art.*

DISCUSSION

In Uzbek literature, there are two main types of plot: chronological and concentric [1,171]. Such a classification can be found not only in Uzbek, but also in Russian literature. In particular, Russian literary critics V.Khalizev [2,88], G.Pospelova [3,120-122] note the existence of chronic and concentric types of plots. However, the literary critic A.Rahimov, taking a comprehensive approach to this issue, in addition to the above plot types, points out that there are two other types of plot: retrospective and associative forms in the example of the best novels [4,27-37].

In this sense, the object of research was the term and classification of retrospective. The term retrospection is defined in the literature as follows:

1. Retrospective examination, looking back. Acceptance of retrospective in fiction (narration of past events). Retrospective is an artistic method, referring to the past of the protagonist (heroes), observing previous events [5].

2. Kuznetsova's Explanatory Dictionary: Retrospective. [lat. look back and forth] look at the past, comment on past events.

3. Ojegov's Explanatory Dictionary: retrospective – look at the past, look at the past. Retrospective look.

4. Small academic dictionary: retrospective – dedicated to thinking about the past, looking at the past.

5. Dictionary of Russian synonyms: retrospective – returned to the previous state.

6. Dictionary of Gallitism in Russian: retrospective – lat. retro back, distinctive look. Looking back and reviewing past events.

7. A large dictionary of foreign words: retrospective – (Latin. Looking back and past). A transition from the present to the past, including a statement or comment about the past.

8. Annotated translation dictionary: retrospective – referring to the past, past events, looking back or to the past [6].

Apparently, the etymology of the retrospective concept refers to the Latin language and the term "retrospicere", which means "looking back". Thus, retrospective is a method that takes into account past development or work done. In particular, the term can be said to be the sum of three components:

The "retro" prefix, which can be translated as "back". The verb "spere" is synonymous with the word "see, look". The suffix -tive is used to denote a passive or active relationship.

What is the use of retrospect in the composition of a work of art, that is, as a new form of plot construction? - requires finding answers to puzzling questions.

Contradictions in the theoretical views of Russian and Uzbek literary critics, in the existing textbooks, and the lack of unified views on this topic further increase the relevance of the topic. In particular, the Russian literary critic M.Petrova describes the construction of the plot in this way: "Retrospect is a unique way to form the artistic structure of the text" [7].

According to the Russian literary critic M.Ponomareva, "Retrospective means, first of all, the incompatibility of the retrospective scene during the plot and the fable. This always means a specific delay in the progressive development of the story" [8].



L.N.Fedorova calls retrospect – “reference to the previously presented solid and factual information”, and states that the main task of retrospect is informational, which is directly related to the content of the work of art [9].

According to N.V.Bruskova, who considered retrospective on the example of German fiction, retrospective is a “presentation of events that relate to the events that preceded the events described in the previous text in the next part of the text” [10,23].

A.Rahimov, a literary critic who has conducted research in this field, said: This often happens in the form of a return to the past of the character whose destiny is being portrayed – to the earlier stages of his biography. Balzac, for example, often puts his protagonists in complex situations and goes back to their previous destiny, artistically analyzing the circumstances that led the protagonist to fall into his current state. This, in turn, allows us to imagine the mood, character and future of the characters” [4,27-28].

According to researcher B.Turaeva, “Retrospective directs the story from the current state of the plot to the past. Sometimes the state of the plot is just a basis for memorizing and narrating.

Retrospective is a means of compositional substantiation, which provides an opportunity to expand the life of the protagonist, his previous history, to determine the state of affairs” [11,2-3].

It can be seen that by expressing the meaning of retrospection (lat. retro – to look back, back, spectare – to look; retrospective, lat. retrospectivere – to return to the past, to revive the past), the main events begin at the culmination, the event stops at a certain place, and the events leading up to the culmination, the activities of the protagonists come to life. Retrospect plays a major role in a work of art as a literary method. It is the connection between the past and the present. Thanks to retrospect, the reader can reconstruct previously obtained information, review it, and eventually understand the author’s intent. Information that at first seems incomprehensible, secondary, is determined by the repetition mentioned, and has a certain significance. It is characterized by an important part of the description of the events leading up to the main event, in some cases beginning at the end of the work. Salih Makhdum in A.Qodiri's novel “Scorpion from the Altar”, Zaynab and Omon in H.Olimjon's epic “Zaynab and Omon” Rahim Saidov's first meeting with Munis, his frequent recollections of his days together, In the novel “It is difficult to be a man” Gafurjon aka remembers meeting Tursunali Kurbanov, helping him, remembering the first meeting of Abdulla and Gulchehra, In T. Malik's story “Shaytanat”, the image of Asadbek's childhood can be an example of looking back from time to time.

Hence, the main task of the retrospective plot is to report on the characters’ past, evaluate,

understand the image, interpret the events, explain, and enhance the drama.

Analyses show that the type of retrospective plot, which appeared in the novels as a method of “returning to the biographical past of the protagonist” [12,203], acquires a more complex, analytical character in modern novels. Through it, the author not only goes back to the protagonist’s past - his biography, but also deeply analyzes the protagonist’s inner world, experiences and aspirations. In other words, “the retrospective method of plot construction has become a means of examining the inner world of the protagonist” [13,69].

Studies show that the starting point of the art of retrospective (memory, recollection) is Marcel Proust's novel “In Search of Lost Time”.

In addition, retrospection is mainly used in two main senses:

- a) an event from the past (episode);
- b) narrative device (medium).

One of the first appearances of a retrospective plot is the oldest form of presentation of the story material – it is a series of episodes (separate episodes, stories of comrades, etc.). As a result of such intertwined events, the artistic time of the work expands and takes on an entirely different scale. The meeting of the protagonist of A.Kadyri's novel “Last Days” Otabek with Master Alim, the story of Master Alim and the fact that this story coincided with the time of Otabek's expulsion and humiliation, Otabek's own destiny as Master Alim's destiny, the retrospective episode the driver can also be seen as a force that moves the protagonist, motivating him to act in a braked state, logically connecting the parts of the work.

It can be seen that the retrospective, which contributed to the unification of the components of the work, is, at the same time, a source of further development of the plot. Therefore, L.N.Fedorova believes that the following functions can be distinguished in it: 1) a function that contributes to the development of the plot; 2) a function that slows down the development of the plot.

The retrospective part at the beginning of the work serves a plot-developing function. In this case, the retrospective part of the work contains information that predetermines the plot or shows a certain deviation in the narrative process. The retrospective segment of the story included at the beginning of the text contributes to the creation of an artistic space, describing the protagonists of the work [9,116].

The retrospective function of retarding the development of the plot does not affect the development of the plot, on the contrary, due to the expansion of the movement time, at first glance the plot development may seem slowed down, in fact the plot development shifts to internal dynamics and



continues to develop. As we can see, retrospective is primarily concerned with movement time, not space.

As a result of the retrospective method of plot construction and the growing desire to use its elements, the retrospective plot method is becoming more and more deeply ingrained in the epic narrative in various forms.

Literary critic A.Rahimov notes that "the retrospective method of plot construction is manifested in various forms and manifestations, such as the author's story, memories, reactions to events around him, associations" [4,30].

In some sources, retrospective plot appearances in a work of art are conditionally classified as follows:

I. According to who performs the retrospective narration:

- 1) retrospective of the narrator-author;
- 2) narrator-character retrospective;
- 3) retrospective of the chronicler-narrator.

II. According to the form of retrospective narration:

- 1) events through the eyes of a certain "person";
- 2) events related to the past of the "person" through his imagination;
- 3) events that took place in the past of the "person" or created through the fantasy of that "person" through his dream;
- 4) daily (in writing) by the "person".

III. According to the retrospective narration, at the time of the events:

- 1) current processes through the silent gaze of the character;
- 2) with the help of the imagination of the recent past;
- 3) the distant past is given through memories [13,69-70].

M.Merkulova, a Russian literary critic, states that "retrospective composition is used in a work of art: the author's position (approach, attitude), as a means of depicting the protagonist and visual image" [14].

B.Turaeva divides retrospection into the following four types: mini retrospectives, retrospectives within retrospectives, retrospectives within internal retrospectives, retrospectives and prospective mixed retrospectives [15,22].

Let's analyze the above theoretical views with examples: the author's position (approach, attitude) - allows the reader to pay attention to the actions of the protagonist, not the event, to understand his personality, and this is the basis of the event. A clear example of this can be seen in the memoirs of Soat Ganiev's childhood, one of the characters in O. Hashimov's novel "Lives in the Dream":

"... One day Saat asked his father, who was anointing Browning:

"Why is Eshan's wall taller than ours?"

His father laughed.

"Eshan surrounded his fortress with a high wall to hide his evil deeds, my son!" Soon we will bring them all together, we will not believe, we will be rich...

... The clock didn't understand anything, didn't want to understand: interestingly, after those events, his mother... suddenly became a worshiper. While blessing his face on the bed, Baralla begs:

... Eshon ota! I know you have no sin. May your life be blessed wherever you are!

At last the Clock could not bear it. He leaned on his mother's head, who was sitting on the couch.

"Turn it off!" Let the elements kill my father, but bless them ?! "

In another episode:

"The enemy! They are all enemies! The child of a snake is a snake, the child of a scorpion is a scorpion! ... " The clock suddenly came to his mind, and at the same time he felt relief.

In another episode:

"Listen!" Said Saat in a mixture of pain and anger. - I will be the Commissar! Of course I will! I shoot everyone! I will shoot one by one!" [16,34-39].

Reviving the events and memories of his childhood Understanding Saat Ganiev as a person, his behavior and how he was so ugly, looking for dirt in the nails, looking at others with suspicion, never made any friends in his life, in short: the real Soviet system, the Soviet It develops and forms as a person under the influence of ideology, and at the same time serves to interpret, inspect, reveal its character, and allows the reader to understand these aspects.

A similar situation helps to reveal the behavior and character of Muniskhan, the protagonist of O.Umarbekov's story "Summer Rain" in his youth [17]. As a result, in both of the above examples, the reader gradually understands how events, which were incomprehensible at the beginning of the work, came into being.

One of the manifestations of retrospective plot construction is that in the retrospective of the image of the protagonist, his dreams, desires, memories are manifested through a series of dreams and dialogues. Such cases can be seen in the example of Rahim Saidov, the protagonist of U.Umarbekov's story "Summer Rain" and Rustam's series of dreams in U.Hoshimov's novel "Lives in a Dream".

Retrospect is observed in different forms in a work of art, from the speech aspects of the work (according to who performed the narration), the events in it (in what form the narration is given), in what situation these events are applied (at the time of narration), the status of the protagonist The inclusion of an episode of Master Alim in the novel "Last Days" stems from the need to explain Otabek's mental state at the time) and his behavior.

Now, retrospective story has become a means of analyzing the inner world of the protagonist,



conveying the thoughts, sufferings and experiences of the characters, analyzing their actions in their own language, helps the reader to better understand the protagonist, the situation in the work, the content of the work.

In addition, if the retrospective lines in the plot were not related to the main plot lines, the story within a separate story, a scene from the protagonist's past, was observed in the form of episodes, but now connects different parts of the plot provides a deeper understanding of the protagonists, the idea of the work, the purpose of the writer.

The retrospective method of plot construction in a work of art (especially in novels), in part, describes the events leading up to the main event, thereby understanding and analyzing the inner world of the protagonists, the reasons for changes in character, expanding the possibilities of "artistic time" in the work. in the function of a bridge, it is widely used as a convenient tool for looking at the past, the history of development of the protagonist. Retrospectives in the work of art – the method of narration, the form in which it takes place, the time of events, the image of the author, the image of the protagonist, retrospective - memory, retrospective - story, retrospective - narration, retrospective - epigraph, braking and developing relative to the main plot, is reflected in the views.

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ADVANTAGES OF USING INFORMATION TECHNOLOGIES IN TEACHING FOREIGN LANGUAGES

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ANNOTATION

The main objectives of ICT use in the English language are: increase of motivation to language learning; improving foreign language communicative competence increase linguistic knowledge; expansion of knowledge about sociocultural specificity of the country of studied language; the development of ability and readiness for independent studying of English language.

KEY WORDS: *ICT, foreign language, education, innovation.*

DISCUSSION

The widespread use of information and communication technologies opens up new opportunities for teachers to teach a foreign language.

Research problems – what are the principles, methods, and conditions for optimizing the process of teaching foreign languages using ICT tools?

One of the main goals of teaching a foreign language is to develop a student's personality that is able and willing to participate in cross-cultural communication in the language being studied and improve in the foreign language speech activity they master. The purpose of using information technologies in foreign language lessons is to study new forms and ways of improving pedagogical skills as one of the conditions for improving the quality and effectiveness of education and students' communicative competence, increasing their motivation, and involving them in communication activities through the use of ICT.

The tasks of using ICT in the educational process are the development of various types of communication skills (listening, speaking, reading, writing) through the use of Web cameras, communication systems, the Internet, where you can transmit images, communicate both orally and in writing live. In addition, the use of ICT contributes to the activation of students' cognitive activity, thereby developing their creative abilities, implementing an individual approach and intensifying the student's independent work. Information technologies attract passive listeners to active activities.

The use of ICT in English lessons enhance the motivation of students and enhance their intellect

activity, effective learning, forming an integrated system of knowledge, allows efficient use of training time and increase the pace of the lesson without compromising the learning of students, introduces an element of novelty, allows to bring students to a new level of mastering a foreign language.

Modern life requires a person to be flexible in thinking and creative in solving problems. The extent to which human society will advance in the future will be determined by the creative potential, and hence the cognitive activity of the younger generation. The use of ICT creates an atmosphere of creative search, significantly increases the level of knowledge and cognitive activity of students.

The use of ICT and the Internet already in primary education institutions leads to an increase in the cognitive activity of students, to the effectiveness of learning by changing the level of its individualization and differentiation, and the use of additional motivational levers. In many cases, the use of modern ICT tools and IT technologies makes it possible to differentiate the learning process of education institutions children by using tools and technologies for selecting tasks at different levels, organizing independent promotion on course topics for successful students and returning to insufficiently studied material for lagging students. Taking into account the possible factors of individualization and differentiation of learning, ICT tools that are reasonably used in the regular and extracurricular activities of younger students can contribute to the organization of personality-oriented learning, and therefore to the growth of their cognitive interest.



Information and communication technologies help to strengthen the educational motivation for learning AND improving students' knowledge. ICTs are aimed at intensifying the learning process, improving the forms and methods of organizing the educational process.

The modern period of development of a civilized society characterizes the process of Informatization. One of the priority directions of the process of Informatization of modern society is the Informatization of education – the introduction of new information technologies in the education system. The process of Informatization of education leads not only to changes in organizational forms and methods of teaching, but also to the emergence of new ones. In connection with the development of the process of Informatization of education, the volume and content of educational material is changing, and the programs of academic subjects are being restructured.

In parallel with these processes, innovative approaches to the problem of students' knowledge level are being introduced, based on the development and use of a set of computer testing, diagnostic methods for monitoring and evaluating the level of learning. Currently, significant changes in the field of education have also affected the teaching of a foreign language at education institutions. In particular, new information technologies, such as the use of Internet resources and training computer programs, have been intensively introduced into the educational process. We live in the age of information and computer revolution, which began in the mid-80s and still continues to increase its pace.

Computers have rapidly entered our lives and the process of learning English. State policy has recently been aimed at introducing information technology in education institutions.

The computer in the educational process is not a mechanical teacher, not a substitute or an analogue of the teacher, but a tool for teaching children that strengthens and expands the possibilities of their learning activities.

The computer takes over the lion's share of the teacher's routine work, freeing up time for creative activities.

The computer brings the process of learning English as close as possible to real conditions. Computers can perceive new information, process it in a certain way and make decisions, can remember the necessary data, reproduce moving images, and control the operation of such technical training tools as speech synthesizers, video recorders, and tape recorders. Computers significantly expand the ability of teachers to individualize learning and enhance the cognitive activity of students in teaching English, and allow them to adapt the learning process to the individual characteristics of students. Each student gets the opportunity to work at their own pace, i.e.

choosing the optimal volume and speed of assimilation of the material. The use of computers in English lessons significantly increases the intensity of the educational process. In computer training, a much larger amount of material is absorbed than was done in the same time in traditional training. In addition, the material is absorbed more strongly when using a computer.

The computer also provides comprehensive (current, milestone, final) control of the educational process. Control, as you know, is an integral part of the educational process and performs the function of feedback between the student and the teacher. When using a computer to control the quality of students' knowledge, a more objective assessment is also achieved. In addition, computer control allows you to significantly save education institutions time, since all students' knowledge is checked simultaneously. This allows the teacher to pay more attention to the creative aspects of working with students. Another advantage of the computer is the ability to accumulate statistical information during the educational process. By analyzing statistical data (the number of errors, correct / incorrect answers, requests for help, time spent on individual tasks), the teacher judges the degree and quality of students' knowledge formation.

During traditional classroom classes, there are various factors (pronunciation defects, fear of making mistakes, inability to formulate your thoughts aloud.) they do not allow many students to show their real knowledge. Computers also create favorable opportunities for organizing independent work of students in English lessons. Students can use the computer both to study individual topics and to self-monitor their knowledge. Moreover, the computer is the most patient teacher, able to repeat any task as much as possible, achieving the correct answer and, ultimately, automating the skill being worked out. Project activity is unthinkable without the use of information technology. The project based on information technologies is multi-faceted, effective, promising, and inexhaustible. Computers are used by students when performing various types of projects: informational, gaming, research, and creative. The Internet is also used for project preparation. The joy of learning-this is what gives the use of a computer in the classroom. And this, in turn, together with the development of thinking leads to the development of initiative speech.

However, having said about the advantages of computers, there are some disadvantages. In the context of computerization, the conditions for interaction between the teacher and students, as well as students with each other, change significantly..

Training is unthinkable without the educating influence of the teacher's personality on the student. The main goal of learning a foreign language in secondary education institutions is the formation of



communicative competence, all other goals (educational, educational, developmental) are implemented in the process of implementing this main goal. The communicative approach involves learning to communicate and developing the ability to interact cross-culturally.

The development of education today is organically connected with the increase in the level of its information potential. This characteristic feature largely determines both the direction of the evolution of education itself and the future of the entire society.

For the most successful orientation in the global information space, it is necessary for students to master the information culture. The global Internet network creates conditions for students and teachers to get all the information they need from anywhere in the world: country studies, news from the life of young people, etc. As an information system, the Internet offers its users a variety of information and resources. The basic set of services may include:

- Email;
- Teleconferences;
- Videoconferences;
- Ability to publish your own information, create your own home page;
- Access to information resources;
- Reference directories;
- Search engine;
- The conversation in the network.

These resources can be actively used in English lessons.

Mastering communicative and cross-cultural competence is impossible without the practice of communication, and the use of Internet resources in a foreign language lesson in this sense is simply irreplaceable: the virtual environment of the Internet allows you to go beyond time and space, providing its users with the opportunity to communicate authentic with real interlocutors on topics relevant to both sides. However, we must not forget that the Internet is only an auxiliary technical means of learning, and to achieve optimal results, it is necessary to correctly integrate its use in the lesson process. In elective classes, my students really like to talk on the Internet with native English speakers. You can achieve a communicative orientation when teaching foreign languages using a computer in the text editor mode. Word is one of the most advanced programs in the class of word processors, which provides hundreds of operations. You can use it to easily perform communicatively important actions on the text. The word processor can be used as a tool for creating training exercises, as a tool for stimulating students' activity in creating texts in the language being studied. Examples of tasks:

- print the text and make changes to it;
- shorten the text, leaving the most important information in it;

- find and highlight the answers to the following questions in the text;

- divide the text into semantic parts;
- restore the correct order of sentences;
- the text does not contain punctuation marks, capital letters, or spaces between words. Restore it;
- find and highlight passive constructions (bold, italics). Students also create communicatively important texts: greeting cards, questionnaires, biographies, essays, projects.

There are many computer programs that help English teachers and students learn English.

Computer training programs have many advantages over traditional teaching methods. They allow you to train different types of speech activity and combine them in different combinations, help to understand language phenomena, form linguistic abilities, create communicative situations, automate language and speech actions, and also provide the implementation of an individual approach and the intensification of independent work of students.

Currently, multimedia technologies are widely used. The term "multimedia" means "many environments". These information environments are: text, sound, and video. Software products that use all these forms of information representation are called multimedia products. Multimedia presentations are actively included in the learning process. With the help of multimedia technologies, it is possible to conduct various forms of lessons.

The use of such programs as Microsoft Power Point (animated notes), Microsoft Office Word and Microsoft Office Excel (handouts), Internet Explorer (search activity), interactive Smart complex (moving words, images) allows you to: unload the teacher, increase students' interest in the subject, more clearly present the material through the use of animation, increase emotional components, increase the pace of the lesson, provide feedback, and quickly search for the necessary information.

The use of multimedia technologies in the course of the lesson is well combined with the technology of developing learning, as well as problem-based and differentiated learning.

The role of the teacher is to adapt the collected material on the studied topic and the language level of students, apply computer technologies when introducing a new topic or completing it, control, participate in projects, testing, self-testing, educational games, preparing didactic materials, and extracurricular activities.

The introduction of ICT in the teaching process increases the teacher's authority in the school team, as teaching is conducted at a modern, higher level. The self-esteem of the teacher who develops their professional competencies is growing.

Despite the fact that the teacher is still a critical link in the learning process with two important functions of supporting motivation and



interpretation of learning groups or a particular student, thanks to the electronic educational environment, a new role of the teacher is also being formed: teacher-mentor. In such an environment, the teacher and student are equal in accessing information and creating learning. The teacher ceases to be a source of information, he becomes an accomplice, an assistant.

The advantage of using computer technologies is the transfer of the center of gravity from verbal teaching methods to the methods of search and creative activities of the teacher and student.

Students like to work in the computer class, as the lessons are held in an informal setting, children are given a lot of freedom of action. However, students need to learn not only how to work with these databases, but also how to fill them with information, search and analyze it, look for errors and find answers.

Information technologies make it possible to change the organization of the learning process of students, forming their system thinking, use computers to individualize the educational process and turn to fundamentally new cognitive tools. With the right organization and appropriate methodology, the use of information technologies makes the educational process more open to new ideas and sources of knowledge.

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THE ROLE OF USING ICT IN THE TEACHING FOREIGN LANGUAGE

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ANNOTATION

It is known that education is one of the main institutions of socialization of the individual. The main goal of education is to form a free, responsible, humane person capable of further self-development. An educated person who easily navigates a changing society, quickly learns new areas of activity, has a high level of tolerance, is able to analyze any situation, evaluate it and make an appropriate decision - this is an open society citizen. In this article highlights of the role of using ICT in the teaching foreign language.

KEY WORDS: ICT, foreign language, education, innovation, effectiveness, lesson, pedagogical technology, pedagogical skill.

DISCUSSION

The use of new information technologies in the educational process allows teachers to implement their pedagogical ideas, present them to colleagues and get a prompt response, and gives students the opportunity to independently choose the educational trajectory-the sequence and pace of studying topics, the system of training tasks and tasks, and ways to control knowledge. This is how the most important requirement of modern education is realized – the development of an individual style of activity, a culture of self-determination for the subjects of the educational process, and their personal development.

The modern period of development of a civilized society characterizes the process of Informatization. Informatization of society is a global social process, the peculiarity of which is that the dominant activity in the sphere of public production is the collection, accumulation, processing, storage, transmission and use of information, carried out on the basis of modern computer technology, as well as on the basis of various means of information exchange. The rapid development of computer technology and the expansion of its functionality makes it possible to widely use computers at all stages of the educational process: during lectures, practical and laboratory classes, during self-training and for monitoring and self-monitoring the degree of assimilation of educational material. The use of computer technologies has significantly expanded the possibilities of the lecture experiment, allowing you to model various processes and phenomena, the full-scale demonstration of which in the laboratory is technically very difficult or simply impossible.

The possibilities of using computer-based learning tools in mastering aspects of language, forming skills and abilities in various types of speech activity are great. I use them when teaching phonetics: With the help of ICT, the technique of visualizing pronunciation is often used. Multimedia features allow you to listen to speech in the language you are learning, adapting it according to your level of perception, and adjusting the speed of sound allows you to split phrases into separate words, while simultaneously comparing the pronunciation and spelling of words. Using a microphone and automatic pronunciation control allows you to adjust your phonetic skills. The computer offers a list of words for translation and phonetic processing. You can record a spoken word or phrase of the student for the purpose of control, self-control and correction.

When teaching grammar: using ICT in a grammar lesson is possible when studying almost any topic. If the material is correctly positioned, color-coded, using diagrams and tables, and is accompanied by voice (pronunciation of examples in a foreign language), it will be easier and faster for students to perceive the material, since most of the receptors will be involved. The time spent on the lesson will also be reduced - the need to write material on the blackboard will disappear. And it's more interesting with the help of ICT you can monitor the level of grammatical skills based on test programs and provide reference and information support (automated grammar reference books, systems for detecting grammatical errors at the morphological and syntactic levels).



When teaching vocabulary: based on test and game computer programs using visual visibility; expanding the passive and potential dictionaries of students; providing reference and information support (automatic dictionaries, programs for selecting synonyms and antonyms). Exercises for mastering vocabulary, grammar, and syntax. I use such types of work as: exercises for filling in gaps. If the answer is incorrect, the following scenarios are possible:

1) Prohibiting the student from moving on to the next task or sentence;

2) The transition of the student to the next task or sentence with their subsequent correction, namely, highlighting the correct answer in a different color or putting a cross sign, meaning an incorrect answer;

3) Exercises in the form of crosswords, where when writing a word, the wrong letter is highlighted in gray, not black;

4) Exercises in the form of a game for making sentences, during which the student hovers the cursor over the necessary word, which then moves to the sentence being made and becomes the last word moved.

5) Exercises in the form of a game-hunter—, which can be in the following variants:

a) The shot is made after listening to the word for the desired definition;

b) The shot is fired after the word is written.

c) The student is asked to correlate two lists of foreign words and set pairs of synonyms or antonyms;

d) The student is offered a list of foreign words and a list of definitions of these words.

Advantages of using ICT in teaching the subject " Foreign language»

1. Internet Explorer benefits such as:

- the largest, constantly updated and updated information resource in the world;

- high-speed manipulation of huge data arrays;

- access to information available on the Network does not depend on the geographical location of databases and users, as well as the time of day;

- search for data required by a specific user;

- access to modern research in many fields of science;

- the ability to transmit various types of text, images, and sounds will help you:

- increase cognitive activity and motivation of learning;

- formation of research skills and skills to work with information;

- expansion and deepening of knowledge, skills, and skills in mastering foreign language communication activities;

- stimulating students' interest in the subject;

- development of speech-thinking activity, Outlook and emotional-sensory sphere of students through music, animation screensavers, photos and pictures;

- reduce fatigue;

- Increase the individualization of training.

2. Advantages of training CDS and DVDs: they allow

- you to individualize the learning process;

- allow students to work at their own pace;

- speed up the learning process;

- improve the quality of material assimilation;

- enhance the processes of memorizing the visual image of lexical units;

- stimulate students' activity, for example, applause for the correct answer;

- provide an opportunity to work out any type of speech activity;

- they form a positive motivation for learning;

- Develop initiative speech.

3. Advantages of the Microsoft Power Point program :

- it leads to better assimilation of the material, namely: the ability to animate, change the most significant elements using color, font, adding diagrams, tables, photos;

- The visualization of the material increases (the concentration of students' attention on the input material is approaching 100 %);

- increases the speed and quality of mastering the topic;

- allows you to repeat a particular stage of the lesson;

- Personal-oriented training is carried out (the teacher creates presentations, taking into account specific students and their abilities).

4. The advantages of Microsoft Word:

- enhances the process of memorizing the visual image of lexical units;

- allows you to create templates for checking any type of activity and easily change them;

- allows you to include tables, text fragments, and illustrations prepared in other Windows applications in the document;

- Modifies and formats the document as a whole (automatic compilation of the table of contents and various indexes), as well as pages.

5. Benefits of Microsoft Excel:

- helps you prepare and process spreadsheets;

- it is a multi-window program that allows you to open several documents at the same time, and some of them can be ready-made files, and some-blanks;

- allows you to split a table window into two or four subwindows and simultaneously work with different parts of the same table;



- helps you create drawn objects and charts;
- A variety of Windows application integration tools are provided: object communication and embedding technology, and a mechanism for dynamic data exchange between Excel and other Windows applications.

6. Advantages of the Microsoft Publisher program:

- simplifies and speeds up the work of the editorial office, allowing you to change and add materials and sections of the site;
- each message can have additional attributes ("new", "sensation") and others defined by the system administrator;
- Allows you to set page display templates for each section.

Thus, the majority of teachers and psychologists note that modern information technologies, including multimedia, give students access to non-traditional sources of information, allow them to implement fundamentally new forms and methods of teaching using conceptual and mathematical modeling of phenomena and processes that can improve the effectiveness of learning.

Education based on multimedia learning tools is the process of forming a media culture of a person who has a developed ability to perceive and assimilate basic knowledge, skills, to create, analyze, evaluate media texts, to understand the socio-cultural and political context of multimedia functioning in the modern world.

When learning to read: ICT allows you to improve your technical skills reading through the use of such techniques as varying the field of perception and the rate of presentation, changing the location of the text, etc.; fixing receptive lexical and grammatical reading skills; mastering the ability to extract semantic information of various types from the text (main, secondary, clarifying, etc.); training in various types of text analysis; forming the ability to independently overcome language difficulties; providing reference and information support by providing language or extralinguistic information (through the use of automatic dictionaries, electronic encyclopedias); monitoring the correctness and depth of understanding of the read text.

When learning to listen: formation of phonetic listening skills; control of the correct understanding of the listened text.

When learning to speak: formation of phonetic speaking skills; organization of communication in pairs and small groups using role-playing games based on simulation programs.

In conclusion, we can say that the use of modern information technologies, multimedia technologies in education allows active - activity forms of training and improves the efficiency of learning and quality of knowledge of pupils,

development of cognitive activity, increase interest to the subject, the development of analytical thinking, formation of skills computer skills teamwork skills self-study. I believe that subject-oriented pedagogical and information technologies in education are a necessary condition for training highly qualified specialists.

In general, since information technology is a set of methods and tools for the collection, storage, transmission, processing of information, computer programs (Power Point), multimedia and technical tools (electronic textbooks, codoscopes, pinboard and flipchart whiteboards) in the educational process serve to visualize the course, facilitate the mastering of the teaching material and increase the motivation of the educators. The folk phrase "preferred", which we see once, than a hundred times said, is an obvious example of this. Didactic principles, such as visual acuity, intelligibility and the use of example-samples, respond to this expression. Because the essence of the use of these tools is an expression from the formation of knowledge in educators visually and as close to the real life as possible

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THE PLOT OF THE ARTWORK

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ANNOTATION

Artistic work is a product of invention. This article discusses the knowledge, skills, and competencies that students acquire in reading and literature classes as a result of the work being done on text analysis in general secondary schools. In particular, the pedagogical possibilities of interpretive reading, commentary reading, literary reading, art reading, expressive reading methods are discussed.

KEYWORDS: *literary text, literary-aesthetic analysis, commentary reading, commentary reading, literary reading, artistic reading, expressive reading, laws of artistic creation, literary criticism, didactics, competence, comparison.*

DISCUSSION

Fiction with a reader-bookstore the art work, which is considered a means of connecting communication, and the issue of its research, is one of the topical, leading issues in the continuous study of literary science. Any artistic work, no matter what genre it belongs to, no matter what size it is, whether it is written in poetry or prose, nevertheless, it cannot always be a real phenomenon of art, when there is no direct creative-spiritual communication between the writer-creator and the reader. One of the most characteristic features of the artistic work, in general, of the artistic literature, is that in it a person can attract the attention of the reader only if the spiritual world is reflected by all its complexities, contradictions, all its magic.

The role of psychological and spiritual image in the artistic literature is unequivocal it's an adult. In the written literature, under the concept of psychological and spiritual image, the art of describing the spiritual world, inner world, dreams, experiences, moods and aspirations of literary heroes on the basis of high artistry lies. And its essence is determined by the opening of qualities inherent in the character of the hero, in what and in what condition the spiritual world is. In the written literature, the psychological image is deep and multifaceted, that is, in it, not only the psycho-psychological image, but also the mental analysis reaches the level of domination. In the literary-artistic works, where the mental analysis is strong, every detail, behavior, episode, every event is subject to the opening of the inner-spiritual world of this or that hero.

With any literary and artistic work, the reader gets acquainted with his the first and main task

before him is the question of understanding the work of art it is transversal. To understand the work, however, the reader during its reading it will be necessary to act on the basis of certain rules, legalities. These laws belong to the work and are associated with it, understand there are a number of factors that facilitate the issue. One of these factors is the ability to penetrate into the psyche of the work of art, its spiritual world, the characters of the heroes, their inner experiences, their imagination, spirituality understanding the world, means. Every character, behavior in an artistic work-spirituality of the work through actions, details, narration of events, episodes it is understood. This is a relative concept. Because, the spirit of the artistic work is only the judgment that the back of the above tools can be understood is incorrect.

However, these things play an instrumental role in the fuller understanding of the work, he is free.

In order for the artistic work to be shown on the scan, the hero and his the issue of Psyche is one of the issues in the first place.

The novel is taken separately form the personality, his character, an epic work that affects the processes of progress and self-awareness.

Teaching students to work on the text of an artistic work presupposes the provision of education through the formation of skills of literary and aesthetic analysis in them. Analysis of the work of art is to re-conquer the creative path of the writer in the process of creating that work, to associate it with the thoughts, feelings and conclusions of the author, at the same time to inspire him from his achievements, to express a critical attitude to his shortcomings.



Analysis is an activity aimed at achieving spiritual perfection not only by understanding, but also by mastering the work. Some scientists call it, for example, A.Zunnunov recognized as the basis of mastering the artistic work (1,133), some scientists, in particular, M.Mirkasimova puts forward the idea that this is a method of studying the artistic features of the literary text (3, 15). If the reader gets acquainted with the content of the work during the reading, he will refer to his poetics during the analysis. By enriching the reading emotion and pounding the mind, the analysis helps to deeply study the meaning in the text system. Not only does the reader learn a concrete work by means of analysis, but also gets acquainted with the laws of various sciences, such as literary studies, logic, linguistics, didactics, art, philosophy, related to artistic creativity.

In achieving this, it is implied that the teacher will solve the following issues:

1. To determine the purpose and content of the analysis.
2. Organization of work (distribution of work analysis by lessons, development of a system of assignments).
3. To determine on what methods the work will be studied, the scope of qualifications and competences that the students will acquire. Literary-aesthetic analysis acquires a specificity according to the genre characteristics of each work, the age, knowledge of the pupils and the skills they occupy. For example, in the lower classes find predicate, if the similarity between events is assimilated by comparison, the meaning of proverbs is understandable only if it is interpreted by means of life examples. Because if small children are in love with the flow of events, adventures, then adults are interested in the spiritual world of heroes, their inner world. Training by analyzing the events of the work will continue in 5-6 classes.

Because at this age, schoolchildren understand white as white, black as black, good as good, bad in a bad way, but the complex inner world of a person remains abstract for them. The fact that the lion is hacked, the cunning of the fox, the cowardice of the rabbit, the loyalty of the dog is well known from their experience. Such adjectives, characteristic of animals, were brightly reflected in the actions, speeches of fairy-tale and fairy-tale heroes. But they are not described in their own way, but they help to understand the contradictions that occur between other heroes. The formation of the skills of literary analysis in students is conditioned by the use of various forms and techniques of work on the artistic text. For example, the first analytical skills are formed on the basis of question-and-answer on the content of the text in the reading and native language lessons of the primary school, as well as on the basis of a complete, concise, creative and personality-altering narrative. As a result, students acquire the

skills to identify the leading meaning in the text floor, to feel the intricacies of the work. In the middle and upper classes, types are widely used, such as essay, abstract, statement, peer review, lecture text preparation. Works of art are read independently at home, under the supervision of a teacher in the classroom, according to the characteristics of the genre and the requirements of the program. In the class, it is voiced, without a sound, it is written inside, read in interpreted, expressive, literary-artistic ways of reading. Below we will dwell on some of them: read the review. Reading reviews is a historical-memoir, in some cases it is necessary to master the content of works on a modern topic. Reading a review does not mean working on a dictionary, but rather covers such complex issues as the interpretation of the content of figurative expressions, proverbs and maxims in the work, information about historical-mythical, imaginary-fiction logos, interpretation.

For example: In the oath of "Uzbekistan" (5th grade) by Abdulla Oripov "Ikki yarim asr dunyoni zir qaqshatdi oqsoq Jahongir", "osmon ilmi tug'ilgan ilk bor Ko'ragoniy jadvallarida" if the couplets are not interpreted, historical figures such as Beruni, Genghis Khan, Jalaliddin Manguberdi, Sobir Rahimov, Habib Abdullaev mentioned in this poem, or if they are not given information about the terms Afrosiab, or the letter of Arkhun, Sarbador, Zardusht, Buddha, cited in Erkin Vahidov's "Uzbegim" (6th class) revenge, the readers do not understand the content of those works. Reading literature. The artistic and aesthetic essence of the literary work is mastered by studying, interpreting the complex order of the heroes, scenes, images of nature, dialogues and other various components in it. "Reading the work of art in accordance with the rules of grammatical and poetic law is called literary reading. The main task of reading literature is to reveal the poetic and artistic characteristics of a work" (2, 52). This shows that literature reading acquires a methodical character. In the process of working on the artistic text, the task of the teacher is to analyze the poetic content of the work, to explain the subject and the subject of the image, to determine the author's attitude to the life story received in the pen. Expressive reading plays an important role in the implementation of this task. Accordingly, this type of reading can be called a way of conveying the meaning of the work to the reader through live speech, in which feelings and thoughts are harmonized.

Expressive reading of the work of art requires taking into account its specific internal genre characteristics and author's style. With the story "Bemor" of A.Kahhor and the poem "Yur tog'larga chiqaylik" by Usman Nasir, with the satirical work of the Muqimiy "Tanobchilar", the story of Utkir Hashimov "Urushning sunggi qurboni" or with the philosophical gazals of Alisher Navoi in terms of the



reading of the proverbs of Hamid Olimjan and Gafur Gulom's uplifting character are distinguished. Dramatic works are created on stage and are felt only by the heart as expressive works of poetry are read, as only actors perform their aesthetic, educational task in full, by the nature of prose works require individual reading. It means that in the research and analysis of artistic works, too, different methods are used. But as one of such methods is not strictly limited to poetry, the other to prose, the third to dramaturgy, it is impossible to study the works of society only in the same form and content, on the basis of a single speech look. Analysis of poetic works will not be perfect without expressive reading. Consequently expressive reading is also an analysis tool. It is often preferred over detailed interpretation and is the primary practical method of introducing readers with the text of an artistic work. It is not surprising that Elbek and Maksud Sheikhzoda, who made a great contribution to the science of Uzbek literature, used the phrases "heart poem" and "rhubarb poem" in the sense of lyrical poetry. A large part of the works, which are ranked among the literature programs of secondary schools and academic lyceums and professional colleges, are examples of poetry because of its position in the history of literature, its historical development. Unfortunately, in the programs, little attention is paid to the work on the text of the poem, in particular poetics. At the end of the poetic texts, most of the questions and tasks that are attached to them, it is asked to memorize the poem, to compare it, to adjective it, to find and mark the animations, that is, to say. For Example, A. Oripov's "Iqbol buyuksan", "Qish tuzgitar momiq par" of the Qudrat Hikmat, T. Adashboyev's "Qish", composed on the surface of many poems, can be cited as an example of this. "It's not a secret that the analysis of a poetic work is difficult because of its association with the poet's internal senses in relation to prose or dramatic works" (4. 66).

In conclusion, the types of reading of an artistic work with each word, phrase and sentence in it means not only correct, fluent reading, but also penetrating into the general spirit of the text and comprehending reading, in addition to the genre characteristics of the work, it is also necessary to take into account its own internal structure and psyche. To achieve this, it is necessary to teach the students to work seriously on the text.

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LITERATURE-AESTHETIC VIEWS OF THE ASKAD MUKHTAR (ON THE EXAMPLE OF "TUNDALIKLAR")

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ANNOTATION

The article analyzes the scope of the topic of the Askad Mukhtar "Tundaliklar", its peculiarities in the literary-aesthetic views. They covered the skills of the writer in the interpretation of the actual issues of the period.

KEY WORDS: skill, scope of the subject, literary-aesthetic views, interpretation, actual problems, originality, analysis, scientist and man.

INTRODUCTION

The notes of the Askad Mukhtar under the name "Tundaliklar" are philosophical reflections that summarize the writer's attitude to this or that phenomenon. They are interpreted on the basis of the unique approaches of the scientist and man, the period and personality, ideology and creator, literature and life, history and today's relations. The uniqueness in the artistic skills of a brilliant talent was manifested in the expression of a lump in short lines.

Outstanding poet, well-known writer, playwright and translator Askad Mukhtar is a unique talent who has made a huge contribution to the development of Uzbek literature and culture. The literary heritage of the writer is diverse in species and genre aspects, the volume is significant. Also, they have passed the so-called fair judge test of time and today also maintains relevance. As academician Naim Karimov correctly noted, "Askad Mukhtar was a writer who understood the meaning of life as a creation, lived for the prosperity of our national literature and raised this literature to several heights. Unfortunately, among other writers who had the happiness and suffering of living in the 20th century, Askad Mukhtar was also a widow of the burden of this period. He did not throw as Chulpan, he did not roast in the fire of shura, like Usman Nasir. But like Oybek, he stayed out of the language, the hand was out of work." [1.43]. Created in the last years of the autonomous life of Askad, "Tundaliklar" occupies a special place in the writer's work, as a new "genre", which appeared in the history of our literature. These drawings, which are discussed about the specific nature of Man and scientist, creator and society, intellect and soul relations, creativity, were first

published in "Tafakkur" magazine, then in 2005 in a separate book by publishing house "Spirituality". It is permissible for the author to include this note in the book: "The next time – old age, the cause of the disease – I became very rare. There is no head when sleep escapes, while the ring-and-groove is stacking the imagination. Then I was able to write some random thoughts on the notebook, which stood under the tunic. I called my notebook "Tundaliklar". The difference of this genre from "daily" is that there will be no events in the chronological order in it. These sentences, one link, even if one is from the mountain, may trigger the efforts of either the opinion of someone. As for, they say from the author's mental state, after all, we all live by adding a share to the spiritual world in some way, always" [2,3].

It is known that "the great evolutions in the socio-political life of our Republic have also assigned a number of tasks to our literature, which has a worthy place in the world culture. There was a need to approach the literature of the 20th century on the basis of a new look at the work of Uzbek literature and a number of its representatives in the current conditions, where there was an opportunity to unbiased and truthful coverage of socio-political events, the literary environment of the Shura period" [3,3]. The above opinions are no exception for the work and activities of the Askad Mukhtar.

The writer in "Tundaliklar" divided her records into two notebooks. The first daftar began with the citation of the words in the work of Zamahshari in the paragraph "Navobigal-Kalom", which says that "the bridle of a person who does not wear a superfluous word is in the hands of devil." This, in turn, served to explain the reason for the brevity and laziness in the notes.



"Tundaliklar" are the thoughts, opinions, opinions of the author about man and scientist, man and society, talent and its role in the historical process, the task of the creator in socio-political evolutions, the essence of human life. They are distinguished by their omission to bitter truths. Although the notes in the "Tundaliklar" do not have a single, common ideological-philosophical orientation, they warn the reader of the mystery and miracles in the bosom of Man and the world, calling for thoughtful contemplation. In them, the writer's bedor heart, awake thinking, horny and full-bodied senses are striking. It is understood that Askad Mukhtar is a wise person who can find wisdom from every reality, perceiving them as a miracle, he is the owner of a sensitive pen that impressively seals these trials on the work. Getting acquainted with the "tundans", we can see that the worldview of a high talent who cannot imagine his life without creativity, who understands history and literature, social and political processes, a broad penchant, a political philosopher who can analyze relations in society deeply, a humanist who can analyze in depth the experiences of people with a particular appearance and character, is embodied.

In terms of meaning, the "Tundaliklar" can be divided into the following relative groups:

- nights about history, the warlords and demonstrators in it;
- nights about literature, artistic creativity, criticism;
- topical issues of the period, nights on socio-political realities;
- relations between people, nights of decency.

The writer emphasizes the need for an impartial and truthful approach to history and its manifestations. For example, in the work of Hisomiddin Bulguri, who lived in the XVI century, "Tovorikhi Bulgor", where the historians of the Shura period approached the personality of Amir Temur in the commander in one direction and told him various slanders, cites these words: "Amir Temur crossed the Kama River and stopped in Malas... The lower reaches of the Zai River were at the disposal of the Bayrashkhon. Temur sent a letter to the same Khan, namely that he would spend the snow-covered days here.

Bayrashhan replied, "Sultan Amir Temur, on the head, we are always in your service. If the Lord gives our provision, you sacrifice our wealth to the almighty."

On the hill on the bank of the river byrashkhon began to attack a fortress. Amir Temur offered when the same was ready. The guest, who came under the auspices of the guard himself, was welcomed by Khan Asasa.

- Your faithful slave I have an essay on this tower for you, if you are happy with their hearts, say hello, accept.

The castle liked it very much to Amir. Bayrashkhon was given a rich gift from his treasure and a sarpo. Here it remained winter. Ulama Mullah, who came from Bukhara and crashed, visited the tomb of Hofiz. At the begi Mustapha Khan Palace of the Minzala Valley was a guest.

He jumped on the road when the snow left. Bayrashkhon tracked him down by the river iyg, to his native land. Amir Temur went towards Samarkand" [2,17].

The author, along with this information, also notes the following: "Russian lands have been demanded payhon, made mountains from headwaters. No rap! To make this urine from such slander poured into the ears of generations is not it necessary to look often on the pages of our history in order to restore it?" [2,16].

Representatives of the generation of Askad Mukhtar belonging to the Shura government's one-sided, ideological repression and lies-based policy have always lived as felt. The writer notes about this in the "Tundaliklar": "you know The legend of the fable, you also know the "eternal stone". My generation rolled that charisma at the "peak" for 70 years. I have a moaning inside. Or heard remember what Maxim Gorky said. As long as they answered "Maksimalno Gorko" when they asked him "Our situation is tin" [2,10]. Or the writer says about another tragedy of his time: "we dreamed of turning labor into pleasure, pleasure became labor" [2,14].

About the system in which atheism prevails, it gives the following opinion: "atheism? What is it? Especially those who consider it a science do not understand the series. This can only be artificially false science either. In my opinion, to be a man without God, because God is a mystery. There is a mystery in the world, there is also God. And the mystery-world should not be eternal. Mystery-anonymity-sudden. The Kuran begins with the call of Karim, believe in the ghouls. World is mysterious, man is godly" [2,14].

The next truth of the writer is more acute: "we are not even atheists, we are not godparents. We are simply lascivious: whether God exists or not. We are eager to think diligently about" [2,12].

In the approach to the autonomous historical figures of Askad Mukhtar, he also sees that excessive idealization is not right: "there is a real Alexander Makedonsky – Iskandar. There is the legendary Alexander the Great, who glorified him and raised him to the level of the Prophet (Khusrav, Jami, Navoi, Tajiddin Ahmadi... in dozens, "Iskandarnoma"). This is something typical of the Middle Ages. It seems to me that Temur we should not do this" [2,8].

The leading role in the eastern classical literature in the study of shura literature, mysticism refers to the condemning thoughts as follows: "when we talk about mysticism, it is often compared to



pantheism, neoplatonism. Then why is it that Dante, who adhered to these currents, Petrarcha has been glorified for centuries, has been black-tipped to mysticism? French enlightenment, as a whole stream, rises to the breasts but why not to our jadids, as if it were also called "bourgeois ideologues" ("poor enlightenment")? black stamp pressed. It seems to me that this and such discrimination was a sign of the view that we were colonized" [2,38-39].

"We have a narrow, retail way of thinking about the influence of Eastern literature on the West, especially classical poetry" the writer bases his influence on the development of Western literature in the "Tundaliklar" separately. True, many names, works, comparisons ("Layli va Majnun" – "Romeo and Juliet") are known to us: Gyugo's "Eastern melodies", "Eastern divon" of the Hyote, eastern epics of Byron, "Crimean sonets" of Adam Mintskevich, Pushkin's works "Indication from the Koran", "The fountain of Bagchasaray", Sergei Yesenin's series "Persian melodies", the Caucasian poem of Mikhail Lermontov, many dedications, imitations to Hofiz, Sadiy, Firdavsi, Jami, Navoi and other magnates... Listed graduates. But, why is the effect so vast? To understand what the magic of the eastern genius is, it is necessary to study this phenomenon on a large scale in the process of literary flows and methods of action. Oriental poetry is a free, humane, thoughtful philosophical, traditional romantic poetry, full of love and affection, beautiful and sensitive, rich in high artistic symbols and compliments. From ancient times it was so. He has repeatedly saved the romantic spirit of Western literature for centuries" [2,34-35].

In Uzbek literature, "the emergence of modernist principles is associated with the emergence of socio-political sets, the need to express the "transition" awakened mood" [4,39]. "In the past Russian and Western literature and art, all works of art were traditionally human in one round: Pushkin, Turgenev, Balzac, Flober, Bakh, Chaikovsky, Dostoevsky, Tolstoy, Remberent, Repin, Jack London, Goncheroov, Mark Twain, Chekhov ... Now the same great basic art has been divided into pieces: avant-gardism, Futurism, symbolism, decadence, modernism, surrealism, anmeism, imagism, irrationalism, absurdism, ultraism, freudism, cubism, existentialism, expressionism, abstractionism... Put all "pressure" are there, so if only humanism wins... So go, it's probably if it's all over..."[2,33].

The writer reacted to the populist situations in the era of socio-political changes, the exchange of ideologies as follows: "We have now received the outbreak of rejection of our bud. However, the tap does not appear there at all. Is it not an ideology that denies everything that the old ideology has an effect on? We need to duck all the samples of artistry. Not only in artistry, but also in science, philosophy, and religion, the greatest and most natural manifestations

were those who did so. Even the gentiles recognized the heritage. The Jews adopted to their religion all the values of the Egyptian goddesses. You're not Muslim in the dozens of platoons who have revered the tilth of our thinkers like Farabi, Beruni?!"[2,34].

Speaking about the specifics of thinkers and geniuses, Askad Mukhtar emphasizes: "geniuses leave the circle of their professions. A poet, a scientist, but Navoi is Navoi, Einstein is Einstein." The writer expresses his deep understanding of the important place of some historical persons in the development of society, the existence of law in their mutual meetings, simple visionary conversations also become an unforgettable phenomenon that is an example for generations: "Amir Temur brought to mind the famous examples of the poet when he met with Hofiz Sheroziy: "Have you not yet dedicated! - that was furious, he walks. This is an unthinkable fiction. In fact, this was a serious conversation, which at first began with friendly. This is also seen from the first answer of the same poet: "Generosity, respected are sitting in such a comfort from our generosity!..."

The poet sees the day with a simple mistletoe.

Hofiz's meeting with Amir Temur was not accidental. The famous sherozian did not meet the rulers for some time. Even Baghdad Sultan Ahmed Jalayir, Bengal Sultan Ghiyosiddin, Sultan Mahmud Bahmani and other rulers rejected the proposals. He was famous not only for being a great lyrical poet, but also for his works of tragedy, bitterness on direct social topics; the brave gazelles, written in favor of a friend unfairly defiled by the rulers, about the destruction of the Indian ship in the eyes of the rooster, about the untimely death of his two sons. Of course, famerat this aspect of the poet also interested Sahibkiran. Therefore professor A.Arberry "The meeting of these two great personalities was a very important event not only in literature, but also in history," says in his book "Classical Persian literature" [2,35-36].

Askad Mukhtar said that the creation of a historical hero in the historical game requires great responsibility "to persuade the ghosts of Odissey to talk with him, giving them their own blood. This is what the writer should do when he writes about historical figures" explains [2,6]. He also notes that when evaluating an artistic work, one should not forget about the personality of its author: "critics and literary critics speak mainly about the work. As for the writer... However, the work sprouts from the writer; as a child, he is born in it, grows up, grows up; he praises his child; he protects. The work is the fate of the writer; if necessary, the writer is also ready to sacrifice. This unusual devotion of him, his inability to stand without writing, his tendency to spirituality, philosophy, mushahadah, his personality, temperament, style, views, grief, torture do not interest anyone. The writer is united by his personality and the personality of others – the work is



his subject. He can also work in another business (the writer has never been an impostor), but his essence, passion – creativity. The greater the ability, the greater the effort. He – the selfless self-sacrifice; both happy and unhappy – it does not depend on his will" [2,39].

In short, the artistic and aesthetic views of the "Tundaliklar" of Askad Mukhtar were in harmony with the actual problems of the period and provided the influence and attractiveness of the work. These records, which take place from the "Tundaliklar", give a specific impetus to thoughts, incite the reader to thinking.

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INTERPRETATION OF SOCIO-PSYCHOLOGICAL IMAGE IN THE STORIES OF ASKAD MUKHTAR

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ANNOTATION

The article addresses the work of the writer Askad Mukhtar, one of the largest representatives of Uzbek literature of the 20th century. The writer's works in the story genre were drawn to the analysis and focused on the fact that in his stories written in later years, such as "Доғ", "Инсонга қуллук қиладурмен", "Қора домла", "Жинни", "Фано ва бақо", "Тўққизинчи палата" he wrote thoughtful psychological analysis, especially in the analyzes that social psychology looks special. The story "Тақдир кимнинг қўлида" was studied on the issue on which it was put.

KEYWORDS: Uzbek literature, writer, prose, genre, story, social psychology, image of spirituality, interpretation, idea, artistry, criterion, psychoanalysis, analysis, image.

DISCUSSION

Having shown the modern level of Uzbek literature of the 20th century to the world, the writer Askad Mukhtar made a blessed creation in almost all genres and genres of literature. In particular, in the stories of modern predecessors A.Kadiri, Chulpan, A.Kahhor, G.Gulom together with his creative traditions, consistently continued the life giving traces of folk oral creativity, as well as the mature creative experiences of world storytelling. In this respect, it can be said that the need to learn and teach the writer's specific storytelling skills will be relevant for all periods.

Inspired by the advanced humanistic ideas of the Islamic religion, the Askad Mukhtar was able to show qualitative changes in his stories. Rauf Parfi, the bright representative of the new Uzbek poetry, gives such a high assessment to the work of Asqad Mukhtar: "Asqad Mukhtar is a great writer who embodied the Uzbek – Turkish world of the 20th century with all its tragedies and all its parts. In the mirror of the autonomous creativity of Asqad, the artistic merit of the teachings of saint Zardashti, Confucius, Dao, Muhamad alayhissalom, Jesus alayhissalom, Bahoviddin Naqshband is revealed. This perception is watered by the idea of man and humanity, the struggle for human happiness, regardless of whether it is at this or that level. Let us not think of the tiny twig living whirlpool of ourselves confused. Because this vortex is also able to swallow our spiritual corals, which have been suffering for hundreds of years" [in memory of the autonomous contemporaries of Askad, 2003: 169].

The tragic tone is strong in the stories of the Askad Mukhtar "Фано ва бақо", "Чодирхаёл", "Жинни", ва шунингдек, "Тақдир кимнинг қўлида", "Қора домла". Specifically, the researcher S.Matyokubov analyzing the story "Фано ва бақо", draws such conclusions: the tragic philosophical core of the story "Фано ва бақо", is clearly embodied in the last sentences of the work. Who is he who burns his faith, who loses his faith? As a rule, the tragic works of World Classics would end with the death of the heroes. A.In the story of Mukhtar, both the unbelieving Kholkho'ja and Achil "strangled" each other alive, died alive. But both remained alive.

The situation of catharsis in the genre of tragedies, that is, the admiration, fear, horror of heroes – spiritual evolution, purification – is manifested in the style of artistic analysis of psychoanalysis-psychics in today's Uzbek storytelling. We see the development of this qualitative change in the story of A.Mukhtar "Фано ва бақо" [Matyakubov, 2006: 8] in fact, the image of the faithless in fano and baqo reminds the hero of the story "Тўққизинчи палата" Haji grandfather, the Sultan in the story "Макруҳ". The artistic interpretation of the unbelievers is based deeply on these stories.

Thoughtful psychological analysis in such stories as "Доғ", "Инсонга қуллук қиладурмен", "Қора домла", "Жинни", "Фано ва бақо", "Тўққизинчи палата", created after the stories of askad Mukhtar, written as the first test, intensified. In particular, in these analyzes, social psychology has



increased. While two typical representatives of unbelieving people in “Фано ва бақо” are created with sarcastic sarcasm, the image of two believing elderly molybdenum players to an unbelieving old man in “Тўққизинчи палата” is welcomed. Consequently, Haji grandfather is a selfish person, in reverse faith in his name. Contrary to this person, the images of the pious old man and the sick Bahromov, the Haji grandfather's palatologist, were created.

Also speaking of the recent past history of the writer, the hero of the story “Тақдир кимнинг қўлида”, the bitter fate of the Qulahmat shakes the reader. Askad Mukhtar also gives a broad place to moral-spiritual, socio-psychological analysis in this story. In particular, this interpretation of artistic and philosophical ideas seems to be in the story “Тақдир кимнинг қўлида”. The story tells of the sad life and fate of a slave who has not lost fifty years, has not found happiness either in the family or in society, has not had a chance. Qulahmat-plumber, who drinks on the composed money, drinks with his ulfats, then punches, fights, constantly lies in the sobriety when he opens his eyes. The hero of the story young letenant forces him to believe that "fate is in the hands of man", to think of bondage, to live differently, to think. This is reflected in the inner monologue of the hero: "lay down now, the young lenenant thought: a good boy. The range to the militia is also not similar. Destiny is sucking in the man's own hands... Look at the departure saying. Stop, went really like that, really?... Easy to say. In simple terms, though, what is also seen. In any case, the child should not be tormented. No way! Now lives differently, the sentence is one!". [Askad Mukhtar, 1994: 43] Qulahmat leaves his ugly life and goes to Chirchik. Because, as he gives young letenant, he tries to improve his fate. He is recruited in Chirchik to the cooperative "Fayz". The life of Qulahmat begins to change significantly. As the author gives bayonida: "so among the wonderful people fell into bondage. This was not even caught in a dream of luck. The whole city knew about the "Fayz" cooperative, which carried out dozens of types of household chores. I'm from "Fayz", did you call?" the children of the flower with the design of the hand are all doors lang open. When the servant said two months, he took a suit that he did not wear in his lifetime, and in the sobriety his hair, which was broken and forgotten, also darkened. The Chakkalarigina was mad silver. The wounds on the face, on the neck, went away without scarring.

But when superficial changes, wounds on the surface.

It reminded me of a simple phone call that they had no end." [Askad Mukhtar, 1994: 48]

The phone call points to a new twist in events as the artistic knot of the story unfolds. Qulahmat heard on the phone the name-surname of

Kamil Mirtojievich, it still seems to be crawling. One phone reason he makes a point on his quiet life is to leave his good office and his wonderful friends, pick up his bag and go to the side where his head flows. Mirkomil Mirtojievich was his former classmate. The past... true, the black past of slavery is restored in the imagination of the hero. The writer uses retrospective plot in this place of the story. That is, going back, he describes the student years of the hero, black points in the past, painful memories.

Mirkomil for a girl named Murshida, she confesses to the whole Institute by touching her selfishness with the accusation that she is "the son of the enemy of the people, the alien element". Qulahmat uses Akmal Ikromov's bust to take revenge on Mirkomil, writing a plot of over the chemistry teacher (he is the father of Mirkomil). Qulahmat throws a hand at the most terrible in human work with this behavior. Mirkomil's father is thrown away. And the father of Qulahmat comes back from exile. These events symbolize the years of two terrible cataclysms of the era of the subconscious shura (1937, 1950 years). Askad Mukhtar tells the story from the black days of the shura era of our contemporaries by describing the disgusting work and unhappy, unlucky life of Qulahmat, who burned in the fire of revenge in the story “Тақдир кимнинг қўлида”. People are busy digging into each other. In the story, the writer tells an impressive story, a story from the notorious days when everyone thought of himself, wrote round letters over each other to survive, to avenge, to dry the pillow of how many people. The whole life of slavery is followed by a black past. After all, he remains the cause of the death of an innocent pig. Judging by the fate, the slave is left with a dizzy head to the place where his beloved daughter Murshida lives. Chance makes them come across again. It remains only to go to his house with the call of plumber Qulahmat Murshida. Murshida is also alone, the slave is also alone. Drinking at their little wedding ceremony, aljirabahmat exposes himself. Here's what the hero says: "... Although we have seen, here is a witness in Murshida. Suppose, here are your ten enemies-a? Let's drink one first... take it. Say yes, here's ten, hay fifteen you have enemies. At night, going to bed, you take the pencil step by step in your hands-it's one by one... take aim and say, "come out!", "come out! "A labbay? Yes, not a bumpy pencil, I'll tell you, it's like a silent bullet. Only the trigger presses others in another place. I myself also have one ... Here is a witness in Murshida, gone as a gumdon." [Askad Mukhtar, 1994: 60]

The solution of the story ends with a terrible monologue. This monologue belongs to the slave, who became a murderer and kushanda: "I will not stand. Look at me, in Murshida, I can not stand, inside ... there is a stone. Then after hearing the



message, struck on my forehead and he also put a crackling on his forehead - struck such a blow on my forehead and said, "I am a killer!" did he say, I fell down. After that, I did not get up. Inside I have trouble, not a stone, but a Murshida, it turns out on the same surface. I do not know how it turned out in the Alpha, I do not remember...

As far as I know, I have one dissatisfaction: I also have a slap in someone's face. But in whose face, in Murshida? I do not know. The same in a cracked drink, when drunk, if I had spit, would have gone out with my spit...". [Askad Mukhtar, 1994: 61]

Qulahmat himself read this internal monologue, and when he looked at the burning fat, there was nothing left next to him. He describes himself as "a man who lived in the era of a new samoderjavie and fell from history." Qulahmat knows that he committed a very terrible crime, an unforgivable sin. Therefore, all his life he lives unhelpful, impure. When Qulahmat says that he has found his happiness now, his sins within him will burst and he will again remain with his old wanderer, unhappy life. As we observe, in the story "who is in the hands of fate", Askad Mukhtar goes deep into both social and psychological analysis, talks about the terrible events that took place in the history of the near past with the help of subtle sarcasm, the fate of the unbelieving people who worked against their conscience in these events. Qulahmat also can not successfully pass the tests of time and time, breaking the boundaries of humanity and serving evil.

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GENETIC CLASSIFICATION OF PHYTONYMS IN NAVOI WORKS

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ANNOTATION

This article provides information about the genetics of phytonyms used in the works of Navoi, the coverage of the plant concept, the application of these concepts in the works of Navoi. In addition, in the lexicon of prose and nazmi works of Alisher Navoi it is shown that the terms related to various fields to the mastered layer of the Uzbek language are used, they are characteristic of the Arabic language lexicon, which mainly came into being through the Persian language and the Persian language, the application of such words directly relates to the we have calculated the amount of words belonging to the world of plants in the language of the works of Alisher Navoi and understand that the result of this calculation is relative.

KEYWORDS: *genetics, trees, shrubs, common Turkic words, Persian-Tajik words, Arabic words, lexical-semantic property.*

DISCUSSION

In order for our subject to be more clearly understood the object of verification (material), first of all, what is included in the coverage of the concept of "plant"? We are looking for the answer to that question. This was explained as follows: "plant (plante so, vegetabilia) - the world of living organisms; autotrophic organisms that have the property of photosynthesis; cell coat, as a rule, consists of thick cellulose, a reserve nutrient starch. Heterotrophic nutrition, characteristic for certain plants (saprophytes, parasites), is secondary. Other plant-specific features (specific development cycle, way of formation of organs, living adhesion, etc.) does not belong to all plants. But this set of signs allows you to easily distinguish plants from other living organisms...

Now bacteria and fungi are separated into a separate world. The world of plants is divided into three small worlds: red algae, maple algae and high algae. These small worlds contain all plants of 350 000 species.[1]

According to the latest data from the world biological science, there are about 500 thousand species of plants on earth, of which more than 250 thousand are seed-bearing plants. Of this, more than 800 species belong to plants with bare seeds, while others to flowering plants. This means that flowering plants make up half of all plants that exist on earth.

The distribution of plant species on earth is also not the same: Frans Iosif land has only 40 species of seed plants, 200 species on Yangier island, 5.800 species in the Caucasus, 6000 species in the

mountainous regions of Central Asia, 4148 species in Uzbekistan, 2100 species in India, 20.000 species in China, 14.000 species in Central America. [2]

Of course, plants according to their own characteristics are not the same, they are classified into several species. The Greek philosopher-naturalist, who lived in the IV century BC, used to refer to the soil plants, "trees", "bushes", "immature bushes" and "grass". The names of plants in the current Uzbek language are distinguished from "tree", "bush", "grass", "vegetables" and "mushrooms".[3]

In Uzbek linguistics, the names belonging to the world of plants in the current Uzbek language were studied a little in depth: such terms were reflected in dictionaries, were the subject of separate scientific research[4], were interpreted in scientific books and Articles[5], were presented in the form of a popular scientific book.[6]

In our analysis, we also tried to use these works on the forms, meanings, semantic-stylistic properties of plant names in our current language.

In the lexicon of prose and nazmi works of Alisher Navoi, the terms related to various fields related to the mastered layer of the Uzbek language are used, which are characteristic of the Arabic language lexicon, which is mainly mastered by the Persian language and the Persian language. The use of such words is directly related to the breadth of the creative worldview, as well as the role of the Arabic and Persian languages in the world of Science in their time. In the composition of the works of Navoi, it is



possible to divide the three mastered Catholics into two groups. These are Arabic and Persian words.

Despite this, we also calculated the amount of words belonging to the world of plants in the language of the works of Alisher Navoi, and we also understand that the result of this calculation is relative.

According to our account, the language of Alisher Navoi's works contains more than 300 words related to the plants used by Navoi. These are the names of fruit and fruitless trees and their fruit, the names of flowers, vegetables, lawn-grass and related words to them. In terms of which language the names of plants used in the works of Alisher Navoi belong to (i.e. geneological), our calculation gave the following results: general Turkic and Uzbek words-34, Arabic words - 53, Persian - Tajik words-204. It was also noted that there are 14 words with a mixed composition-Arabic-Persian and Persian-Turkish.

It can be seen that the plants in the language of the works of Navoi and the words that are attached to them constitute the largest part of the words assimilated from the Persian-Tajik language, the second place is occupied by Arabic assimilation.

From the point of view of its stratum and mastered stratum, according to the names of plants recorded in the works of Navoi: the words of its own stratum are 48 pieces, and the words of the mastered stratum are 257 pieces. So, most of the words related to the names of plants in the works of Navoi (84,3% i) belong to their own series. But the concept of this quantity is only a concept within the framework of plant names: a different indicator is noted in the framework of the general lexical language of Alisher Navoi's works: "mastering 53-55 prose of words in Alisher Navoi works is a word".[7]

Also, although the maximum amount in our calculations for words related to plants is Persian-Tajik words (204 - 66.9%), the indicator within the scope of the total amount of the works of Navoi is also different: "Persian-Tajik words in Alisher Navoi's creativity occupy the second place in relation to Arabic materials (21.08%) and 5489 words".[8]

The main reason for the abundance of Persian-Tajik plant names in the language of Alisher Navoi's works is that the Iranian people, who lived long ago and engaged in farming, lived side by side with the Uzbeks, and the historical interaction between the two peoples should have close neighborly relations.

Geneologically, we divide the common Turkic, Arabic and Persian-Tajik words belonging to the plant world, which are used in the language of Alisher Navoi's works, into the following groups:

1. Common Turkic and Uzbek words: ажриғ (I, 54), боғ (I, 325), буғдой (I, 343), вусма (I, 384), каноб (II, 96), кўк (II, 149), мамук/мамуғ (II, 222), мунгуз (II, 352), олма (II, 517), олу (II, 519), сўксўк (III, 140), терак (III, 223), ток (III, 240), тол (III, 241), узум (III, 280), чечак (III,

464), чигит (III, 465), яфроғ (III, 599), ўланг (III, 607), қамиш (IV, 29), қовун (IV, 58), ғомғом (IV, 63) ва бошқалар.

2. Arabian words: абҳар (I, 26), адас (I, 39), алаф (I, 78), асмар (I, 127), афюн (I, 146), бакам (I, 234), бақл (I, 234), завоҳир (I, 608), зайтун (I, 611), карам (II, 98), лиф (II, 174), набот (II, 415), наботот (II, 415), нахл (II, 441), нахлбун (II, 442), норанж (II, 481), руммон (II, 634), сандал (III, 39), унноб (III, 294), фоқиҳа (III, 353), хиёр (III, 391), хино (III, 396), шажар (III, 491), қаранфул (IV, 31), ҳадиқа (IV, 131), ҳашаф (IV, 169) ва бошқалар.

3. Persian-Tajik words: амрўд (I, 89), анор (I, 102), арғувон (I, 119), анжир (IV, 212), барг (I, 216), беҳи (I, 286), бодом (I, 305), бўстонафрўз (I, 347), вард (I, 358), гиёҳ (I, 401), гул (I, 409), дарахт (I, 451), жав (I, 550), зардак (I, 620), зардолу (I, 620), зира (IV, 227), испанд (II, 53), каду (II, 89), карам (II, 98), кашниз (II, 103), лола (II, 177), лубё (IV, 234), мушқбид (II, 395), най (II, 427), наргис (II, 432), насрин (II, 436), нилуфар (II, 460), ниҳол (II, 466), нухуд (II, 492), обнус (II, 497), пахта (II, 568), pista (II, 575), райҳон (II, 600), савсан (III, 45), себ (III, 68), сипанд (III, 82), суман (III, 123), сурхбед (III, 131), таранжабин (III, 185), хурмо (III, 433), чағандар (III, 458), чинор (III, 468), шамшод (III, 498), шафтолу (III, 510), шукуфа (III, 548), шўра (III, 555), ғунча (IV, 119), ҳамқо (IV, 158), ҳанзал (IV, 159) ва бошқалар.

4. Compound words: 1) Persian+Tajik+Arabian: бадалаф (I, 185), найшакар (II, 429), нилуфари (IV, 240), савсаний (III, 21); арабча+форс-тожикча: байзадор (I, 196), ишқпечон (II, 74), нахлбанд (II, 442), нахлистон (II, 442), ҳиноранг (IV, 183); 2) Persian+Tajik+Turk: бебарлик (I, 249), гулнишонлиғ (IV, 219), офтобпарастлиғ (II, 538), пахталиғ (II, 568), сабзалиқ (III, 11), сарвбўйлуқ (III, 47), сарвқадлиқ (III, 47).

In the language of the works of Navoi, general Turkic words ўланг, кўк, Persian-Tajik words гиёҳ and Arabic words alaf were also used in the sense:

Айлади найсон зилоли ер юзин ойинагун,

Анжуму кўк аксидур анда раёҳину ўланг. (III, 607)

Кўк сабзаси кўкка еткуруб бош,
Ул кўкта бўлуб нужум ушоқ тош. (II, 149)
Гиёҳ боғ аро чини ойин бўлуб,
Ки ҳар гул анча луббати чин бўлуб. (I, 401)

Барисидин алаф баҳо кўтариб,
Сабзай умри айшдин кўкариб. (I, 78)

In the language of Navoi's works there is no кўчат, which is active in the current Uzbek language,



навраста, нахл and ниҳол are used in place of this word:

Ваҳки, синди нақли уммедим, хушо, ул боғбон,

Ким эрур хушҳол бир навраста шамшоди била. (II, 420)

Сарв нечук дейин сеники, йўқ анга гулранг юз,

Нахл нечук дейин сеники, йўқ анга ширин сўз. (II, 441)

Дема сарву санавбар ҳар ниҳоли, Бўлур сарву санавбардек мисоли. (II, 466)

So, барг - яфроғ - варақ, бодринг - хиёр, дарахт - ашжор, лиму - турунж, олма - себ, писта - офтобпараст, узум - ток - рез like groups of words are used as synonyms in the poetic language.

The words in the examples above served, firstly, to express the different subtle aspects of the meaning of one concept, and secondly, they also served for the sake of the need for poetic style art.

The preservation of plants and related words in the language of Navoi's works in the current Uzbek language is an important issue.

"It is known that any language goes through different stages in the history of its development. At these stages of the development of the language, certain changes occur in its vocabulary and grammatical structure. This case in itself reveals the peculiarities and norms of the language of each period. According to these norms, the literary language of one period differs from the literary language of the second period by certain features.[9]

Indeed, there are some differences in the application of words belonging to the world of plants in the Uzbek language of Alisher Navoi and the present.

Words belonging to the world of plants in the language of the works of Alisher Navoi can be divided into four types according to the fact that they are preserved in the current Uzbek language: a) words that have reached the same form and meaning; b) words that have changed slightly in the phonetic form; c) words that have changed in meaning; d) words that

The following plant names, which existed in the ancient Turkic language, are mentioned in the language of the works of Navoi, they are also used in the current Uzbek language: арпа (арпа), будғай//буғдай (буғдой), чечак (чечак, майса), ўт (ўт, майса), қамиш (қамиш), тикан (тикан), алма (олма), иғоч (ёғоч, дарахт), йиғоч (ёғоч, дарахт), тал (тол), терак (терах), узум (узум), чигит (чигит).

In the language of the works of thinker Navoi, the flower soy differs from other plant names: in the works of the poet, the forms of the flower word,

which are part of the flower morpheme and isophysical compounds, are served to express more than 50 meanings.

Thus, the language of the works of Alisher Navoi was a highly developed language, combining the language features of different Turkic tribes, absorbing the influence of other languages due to historical-geographical, socio-political conditions. Such wealth in the language of the poet was also manifested in the lexicon of his works, in particular in the vocabulary belonging to the world of plants: the use of several words to denote the same plant in the language of his works, the formation of new words that express new concepts on the ground of the names of plants, serving

Plants used in the works of Alisher Navoi and most of the words related to them have reached the present Uzbek language in the same form and meaning, in the way that the phonetic form has changed a little, in the sense that it has changed a little. Due to periods and historical changes in the language, part of the plant names used by Navoi did not reach the present Uzbek language.

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A STUDY OF CUSTOMER SATISFACTION AND PERCEPTION TOWARDS MAX FASHION BRAND (WITH SPECIAL REFERENCE TO COIMBATORE CITY)

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ABSTRACT

Max has become a trending fashionable products at affordable price with high quality fabrics with great range of all type of wears. The target audience for max India is primarily contemporary middle class family and young working couple with in age group of 25 to 35 years. Every season it introduced a fresh collection of international designs specially customized to the Indian market. The brand adapts to the changing needs of the shopper every season and accordingly introduces new designs, silhouettes & fabrics. Today, MAX is the largest value fashion brand with over 200 stores across 15 countries. As Max has positioned itself as a youth brand, it also targets teenagers and college student within the age group of 18 to 24 years. it makes the perfect destination for all the people. This study was analysed were used for this study. The conclusion of the people strongly prefer the max fashion brand based on their routine life.

KEYWORDS: Max fashion brand customer satisfaction.

INTRODUCTION

There has been a long standing interest from marketers to understand how customers give preference towards a specific brand max. Brand preference is closely related to brand choice that can help consumer in decision making and activate brand purchase. The importance of clothing is to protect, cover, make us feel attractive and help us to move around in comfort. Clothing brings confidences and reflected the personality of the person. It helps a human body to survive the harsh weather conditions. Protection-Human skin is quit sensitive. Brand preference is defined variously as the consumer predispositions toward a brand that varies depending on the salient beliefs that are activated at a given time.

STATEMENT OF PROBLEM

Understanding consumer's choice regarding purchase of any goods and service is difficult task. The task become even harder when it comes to consumer durables. Understanding of the brand preference is essential aspects as it reflect the customer's choice, purchase, style and satisfaction of the customer. The study is restricted to Coimbatore city. This study will help us to understand the customer satisfaction level and their expectation and

their preference.

OBJECTIVES OF STUDY

- To identify the brand awareness of the respondent to purchase the brand of MAX FASHION.
- To know about the service provided by the company having more customer preference.
- To study the customer satisfaction towards using MAX FASHION.
- To identify the customers opinion about the quality of the product offered by MAX FASHION brand.

RESEARCH METHODOLOGY DATA COLLECTION

Data was collected through both primary and secondary data source.

PRIMARY DATA

The data was collected through a questionnaire. The questions were in the form of the multiple choices. The survey was adopted and the information was collected from the Coimbatore city.



SECONDARY DATA

Secondary data consist of information that already exists somewhere, was collected from different sources like news paper, magazines, journals, books and website.

RESEARCH DESIGN

The present study intends to examine the issue framed in the objectives relating to the max fashion brand in Coimbatore city. The required primary data have been collected from the sample respondents.

SAMPLE PLANNING

The customers will be interviewed or asked to fill up the questionnaire at customer service disk and cashiering counter. The respondents, i.e., the customer at max are scarified according to certain partner such as their age gender. The sample size should be around 122 customers. This involves converting raw data into useful information. It involves tabulation of data, using statistical measures on them for developing frequency distribution and calculating the average and dispersions.

SAMPLE SIZE

The sample of 122 respondents was chosen for the study.

AREA OF THE STUDY

This study is conducted within the Coimbatore city

TOOLS USED FOR ANALYSIS

- Simple percentage analysis
- Likert scale analysis

LITERATURE REVIEW

It is essential for a research scholar to do a review on the related on the literature for his study to have a comprehensive knowledge about the research. It helps the research to take the initial step of fixing the problem on which the study is to be done. The review of literature gives the researcher, a broader outlook on the background and situations under which the study has been conducted.

LEUHESSER (1988)¹¹ Behaviours on the part of the brand consumers, channel members and parent corporations permits the brand to earn greater volume or greater margins that it would without the branch name and that gives us strong, sustainable, and differentiate advantage over competitors

AAKER (1991)² The value consumer association with a brand, as reflected and in international referred

research journal dimensions of brand awareness brand associations, perceived quality, brand loyalty.

RADHAKRISHNAN and SHYLAJAN (2007)³ has proposed a conceptual model and considered the influence of various marketing demographic factors on customer habitual buying behaviours towards branded products. **DOLEKOGLU (2008)** the main determining factor affecting consumer behaviour or quality, price, trust, availability of alternative packaging frequent advertisement, sales promotion, imitations, availability, brand image, prestige, freshness and habits.

RAVILOCHANAN (2012)⁴ a research effort is undertaken with the specific objective of analysing buyer behaviour in different retail outlets aimed to identify the factors that influence the buyer behaviour of the customer with the status of customer experience in this format of retail business could accessed which would also serve the purpose of determining relative strength of each of the retail stores.

¹ LEUTHESSER (1988) an analysis on customer perception towards service quality variables, vol, 2, 2319-4421.

² AAKER, JONES, A., DAVID & MORGAN, J. (1971)². modelling store choice behaviour. Journal of marketing research, VIII 38-42

³ RADHA KRISHNAN P and SHYLAJAN, C.S., (2007) determinants of habitual buying behaviour. a study of branded apparels. The ICFAL journal of marketing management, vol. VI, No. 3, pp, 6-21.

⁴ RAVILOCHANAN P (2012) analysis of customer preference in organized retail stores, international journal of trade, economics and finance, vol 3 209-212.



DATA ANALYSIS AND INTERPRETATION SIMPLE PERCENTAGE METHOD

TABLE SHOWING GENDER OF THE RESPONDENTS

S.NO	GENDER	NO.OF RESPONDENTS	PERCENTAGE
1	Male	50	41
2	Female	72	59
	Total	122	100

(Source: Primary Data)

INTERPRETATION

The table shows that 41 % of the respondent are male and the 59 % of the respondents are female.

Majority 59% of the respondent are female.

LIKERT SCALE ANALYSIS

TABLE SHOWING THE SATISFACTION TOWARDS THE MAX FASHION BRAND OF THE RESPONDENT

SI.NO	FACTORS	NO.OF RESPONDENTS	LIKERT SCALE VALUE(X)	TOTAL
1	HIGHLY SATISFIED	21	5	105
2	SATISFIED	32	4	128
3	NEUTRAL	32	3	96
4	DISSATISFIED	12	2	24
5	HIGHLY DISSATISFIED	25	1	25
	TOTAL	122		378

(Source: Primary Data)

Likert value FX/ No.of respondents

$$= 378/122$$

$$= 3.09$$

INTERPRETATION

Table shows that the level of satisfaction shows likert scale value is 3.09 which is greater then the mid value (3)

Hence the customer is highly satisfied by price

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

Findings of simple percentage analysis:

- Majority 59% of the respondents are female.
- Majority 48% of the respondent are 21-30 years.
- Majority of 69% of the respondents are unmarried.
- Majority 39% of the respondents are HSC.
- Majority 36% of the respondents are student.
- Majority 42% of the respondents are earning monthly Rs.20001-Rs.30000.

- 50% of the respondents are brand conscious and 50% of the respondents are not.
- Majority 53% of the respondents are joint family.
- Majority 100% of the respondents are shopping mall preferer.
- Majority 48% of the respondents are festival time purchaser.
- Majority 58 % of the respondents are recommend their family and friend.
- Majority 46% of the respondents are come across from television.
- Majority 39% of the respondents are classic users.
- Majority 37% of the respondents are like price.
- Majority 42% of the respondents are from display posters
- Majority 54% of the respondents are yes advertisements are unrealistic.



- Majority 54% of the respondents are no motivation to buy.
- Majority 57% of the respondents are no more well setup .
Finding of likert scale analysis:
- Hence the customer is highly satisfied by price

SUGGESTIONS

- Make people aware about the importance and presence of high percentage design garments at max fashion compared to other brands.
- There is no need to improve the performance of distribution channel, hence reach the max fashion product in the hand of the customer remote area.
- Provide the more and more promotional and beneficial schemes to attract dealer and other consumers.

CONCLUSION

The study was conducted for analyzing the influence of customer satisfaction in the marketing of the product of MAX- FASHION. The consumers are attracted to purchase the product because of its quality reputation retained by MAX FASHION. The company is also maintains better customer relationship. Changing trend and preference influence the marketing of the product. the company provide promotional measure and advertisement to attract more customers. Customer feels that the brand, price, models and variety are really good.

By making the research is should be proved that the satisfaction of customer highly influenced the marketing of the product. This is the hypothesis set earlier, is to proved. When one customer purchases the product and uses it and he satisfied in it, the purchases the same branded product, thus customer satisfaction is a major influencing factor on the marketing and sales of the product.

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