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SUMSOR RIVER IN THE SYRDARYA BASIN WATER MINERALIZATION AND HYDROECOLOGICAL SITUATION

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ANNOTATION
The article examines the hydro ecological status of inland watersheds, which focuses on the assessment of transboundary pollution of rivers in the region, the analysis of hydro chemical observations and changes in them. In the article, the Sumsor (Rezaksay) River of the Syrdarya river basin is selected as an object for analysis and analysis of river water salinity from the river basin observation stations, the level of household and industrial pollution; assessment of the level of contamination by hazardous radioactive and chemical substances; the prevalence of surface water pollution and the direction of pollution trends over time. Today, due to the rapid economic activity in the Uzbekistan part of the river basin, the operation of irrigation main canals and underground water reservoirs, intensive development of rock and gravel deposits, population growth and development, the high hydroecological situation in the development of new areas remains high.

KEYWORDS- Water Resources, Transboundary pollution, Hydrochemistry, Hydro ecological situation, Surface water.

INTRODUCTION
In recent decades, industrial development, intensification of agricultural production and population growth in Central Asia have caused many regional environmental problems. One of the most serious hydroecological problems in Central Asia is the preservation of surface water quality in the region's second largest waterway, the Syrdarya River [1]. Not only agriculture and internal pollution sources are concentrated in the river basins of the Ferghana Valley, but also industrial facilities (mining companies) are located on the territory of the Kyrgyz Republic. At present, the main pollutants found in surface water in the Fergana Valley are the wastes of these mines, which seriously threatens the water resources of the Syrdarya river basin [4].

GOALS AND OBJECTIVES
The main purpose of the work is to assess the hydroecological status of the water resources of the Syrdarya river basin, to study the current level of river pollution, to determine the results of hydrochemical observations and changes, to make conclusions and recommendations.

For the purpose, the Sumsor River (Rezaksay) was selected as an object and the environmental status of the river basin monitoring stations was analyzed by the mineralogical composition of river water, household and industrial wastewater pollution levels; assessment of the level of contamination by hazardous radioactive and chemical substances; tasks to study the prevalence of surface water pollution and the direction of pollution processes over time. The following key sources of pollution were taken into account when setting the target.

Sumsor is a polymetallic deposit in the river basin and operated from 1950 to 1978. Lead ore, tin and tungsten, copper, iron, arsenic, antimony, selenium and cadmium are the main ore deposits. On the sides of the river valley there are three garbage dumps filled with...
lead ore. Total emissions, according to some estimates, are 2.67 million m$^3$, others - 4.5 million tonnes, and waste area - 260,000 m$^2$. The basin was flooded in 1994 and 2017, tens of thousands of cubic meters of toxic waste fell into the river [2]. In addition, there are six remaining mines in the Shokaftar uranium mine, which operated from 1946 to 1957. Their total length is 76 square km and depth is 260 m, it was reported. Currently, the amount of radioactive waste in the basin is 60,000 m$^2$, according to various sources, from 330 to 700,000 m$^3$. These areas are occasionally washed away by river water and dispersed into the middle and lower reaches of the Sumsor River, causing contamination of the abiotic and biotic components of the environment [4].

**Methods used.** The analysis of hydrochemical substances in river basins and streams was used in field, base-experimental, natural geographical, comparison, statistical, geochemical, hydrochemical and experimental laboratory methods.

**THE MAIN PART**

The Sumsor River begins at the eastern slope of the Kugala Range in the highlands, up to 3700m high, like the Kokserak River. The area of the river at the top of the river with its broad, broad direction is called Kugalisoj. This river originates with the name Sumsor starting from the Ayirmasay tributary. Above the Kuklikkurgan village, this river flows out of the mountains into the canals. The natural stretches southward. Crossing the hills of Surson, it is called Rezaksay and is divided into three parts, pour to the Syrdarya. During the summer, the river flows downstream between Kuklik-Kurgan and Rezak villages. In the Sumsor River basin, sand and effusive rocks are predominant. The monitoring of river flow is carried out on the hydroposts of the upper watershed. The analysis shows that the Sumsor (Rezaksay) river basin is in the area of: strong cross-border pollution; Moderate transboundary pollution, mild transboundary pollution, and transboundary pollution with low impact are common [3].

The hydrochemical analysis of river water was used by the surveillance posts along the river length of Damahad, Baymak, Shayon, Chustnon, Namangan-Tashkent highway, downstream of Rezaksay reservoir and Chust, Seyrek canals. Measurement of river water pollutants in hydroposts was carried out in accordance with the criteria established in the "Index of Environmental and Natural Resources Act [4]. Evaluation of water quality According to the "Generalized List of Maximum Permissible Concentrations" and instructions for the use of hazardous substances in water for fishing ponds, 16 types of pollutants, including pH, hardness, chlorides, sulfates, ammonium ions, quantities of nitrates, sodium, potassium, petroleum products, lead, antimony, copper, mercury, zinc and iron (Table 1).
Table 1

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>PDK</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.6</td>
<td>8.4</td>
<td>7</td>
<td>6.5</td>
</tr>
<tr>
<td>Hardness, mg-equivalents/l</td>
<td>6.8</td>
<td>9.4</td>
<td>8.4</td>
<td>7</td>
</tr>
<tr>
<td>Ammonium ion, mg/l</td>
<td>0.28</td>
<td>1.52</td>
<td>1.22</td>
<td>0.5</td>
</tr>
<tr>
<td>Nitrates, mg/l</td>
<td>0.11</td>
<td>0.12</td>
<td>0.05</td>
<td>0.08</td>
</tr>
<tr>
<td>Oil products, mg/l</td>
<td>0.056</td>
<td>0.088</td>
<td>0.086</td>
<td>0.05</td>
</tr>
<tr>
<td>Chlorides, mg/l</td>
<td>338</td>
<td>434</td>
<td>498</td>
<td>300</td>
</tr>
<tr>
<td>Sulfates, mg/l</td>
<td>249</td>
<td>301</td>
<td>356</td>
<td>100</td>
</tr>
<tr>
<td>Copper, mg/l</td>
<td>0.0038</td>
<td>0.0064</td>
<td>0.0046</td>
<td>0.001</td>
</tr>
<tr>
<td>Mercury, mg/l</td>
<td>0.0001</td>
<td>0.00008</td>
<td>0.00007</td>
<td>0.00001</td>
</tr>
<tr>
<td>Sweets, mg/l</td>
<td>0.014</td>
<td>0.024</td>
<td>0.016</td>
<td>0.01</td>
</tr>
<tr>
<td>Zinc, mg/l</td>
<td>0.012</td>
<td>0.015</td>
<td>0.012</td>
<td>0.01</td>
</tr>
<tr>
<td>Iron, mg/l</td>
<td>0.2</td>
<td>0.24</td>
<td>0.16</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*The table is based on the results of the monitoring of the Environmental Assistance Project [4].

The analysis shows that at the entrance to the region, sulfates in river waters contained 1.8 to 2.5 times, petroleum products from 1.1 to 1.6 times, copper 3.5-5.3 times, mercury 7.6-15.0 times, zinc increased by 1.3-1.5 times, iron by 2.8-4.0 times. The water hardness was changed to 1.2 mg equiv/l. One-time increase of nitrite in water was recorded 1.4 times. The mineralization of water with chlorides and ammonium ions corresponds to the norm. Comparing the values of phase 1 in the observed phase, it was found that the oil content was 1.9 times, copper 1.2 times, iron 1.1 times higher, and zinc 1.2 times lower. In the upper reaches of the river, the iron content is 1.8-4.0 times higher (Picture 2).
Dynamics of pollutants content in Sumsor (Rezaksay) river waters

At all monitoring stations in the river, high sulfate content was recorded at all stages of the study. In particular, the amount of sulfates was higher than the norm set in the Baimak, Shoyon, Chustnon and Rezaksay reservoirs. Almost all oil samples studied have small amounts of oil ranging from 0.0018 to 0.0100 mg / kg. The content of heavy metals and other controlled ingredients in the sediments does not exceed the established limits.

In the lower reaches of the river, the concentration of pollutants decreases and reaches the minimum values when it reaches the lowlands as a result of the spreading and absorption of pollutants in the lower reaches, and the addition of river water from other river valleys.

SUMMARY

1. Today, due to the rapid economic activity in the Uzbekistan part of the river basin, operation of irrigation main canals and groundwater pools, rapid development of rock and gravel deposits, population growth and the high hydroecological situation in the development of new areas remains.

2. Not only agricultural and internal sources of pollution are concentrated in the Sumsor (Rezaksay) river basin, but also industrial facilities (mining companies) are located on the territory of the Kyrgyz Republic. And today, the main pollutants found in the river flow are the waste of these mines.

3. The spring floods on the Reaksaksay (Sumsor) river basin showed that the most dangerous for the population. In addition, during this period there is a risk of toxic waste and erosion of mining waste and their distribution to the river.

REFERENCES

FACTORS AFFECTING KNOWLEDGE SHARING ON INNOVATION IN THE HIGHER EDUCATION INSTITUTIONS (HEIs)

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ABSTRACT
It is believed that Information and Communication Technology (ICT) can enhance Knowledge Sharing (KS) with the integration of individual and organizational factors. As a relatively new field of research, studies on KS based on Information Systems (IS) in developed countries is also on the increase. Unfortunately, KS research in the Higher Education Institutions (HEIs) in developing countries is mostly found to be given trivial considerations. It is even rare to find conceptual research model for KS in HEIs in developing countries that integrate individual, organizational and technological antecedent factors together. Therefore, the objectives of this paper are twofold: to explore the best conceptual KS research frameworks based on existing research models in HEIs; and also to propose a research model that can help explain better the nature of KS in HEIs. The methodology of this study is subjective/argumentative research i.e. idea generation in IS. The proposed research model has been built on the basis of IS theories and from the review of extant KS literature. The study reveals the antecedents and incorporates in the proposed research models which are: perceived self-efficacy for higher education and training, perceived leadership, social network, perceived ICT tools and technology, perceived organizational rewards, perceived organizational climate and perceived organizational trust. The finding of this study reveals that the proposed KS research model seems better compare to other existing KS research framework in HEIs in developing countries. The study also reveals that the IS theories integration with ICT technology can explain better for KS research.

KEYWORDS: academics, higher education institutions, knowledge management, knowledge sharing, innovation, developing countries.

INTRODUCTION
Academics are the intellectual leader for developing societies. New knowledge is created and transferred to the people in the Universities. Though relatively still an infancy field of research, studies in Knowledge Management (KM) and KS continue to be on the increase. KS and Innovation are believed to be inter-related and could influence organizational performance. Studies show that individual’s knowledge does not renovate simply into institutional knowledge even with the use of knowledge depository. Knowledge is power and source of all actions in the organizations. The concept of KS and institutional innovation capability are now the most emerging issues in KM research for achieving competitive advantage. Although, KM research has been very popular for the effectiveness of business organizations in developed countries for more than two decades, yet according to, the KM research is growing and is beginning to help organizations gradually understand the importance of managing knowledge. The extant literatures in KS show that, in developed countries, universities are now immensely undertaking KS research in the KM field to find links to institutional innovation capability. Recent
Literatures on KM in developed countries suggest that KM phenomenon is continuously being investigated in the United States of America (USA), Canada, Netherlands, and United Kingdom (UK). Presently, knowledge workers in the USA constitute 70% of the total workforce. Over the past two decades, there has been a dramatic increase in scientific activity as well as economic advancement based on ICT. The ICT gave birth to the notion of new economic development. The past decade has also witnessed the rapid development of KM research in many organizations in Europe and America. Many universities in Europe focused on institutional innovation through KS practices using ICT to promote KS. For instance, Germany has launched a programme named “EXIST” while Moscow State University, Russia launched “Formula of Success” for KS practices.

Furthermore, previous studies show that individuals’ intention has potential impact on KS activities. Most of the previous KS researches have overlooked the technological dimensions of ICT for knowledge sharing. Moreover, individual, organizational and technological determinants for KS research as a whole in HEIs have not been given adequate emphasis in developing countries. Whereas, prior studies suggest that there is a need for a research model. Because, KS with individual, organizational and technological antecedents altogether can improve organizational performance. It can help explains the three dimensions, and this is still hard to find in the extant KM literature. Therefore, the aim of this paper is to recommend plausible IS theory and research constructs that can help explain the nature of KS in HEIs. It will also explore the best conceptual research framework based on existing research model in HEIs. As suggest by, the methodology of this study is subjective/argumentative research i.e. idea generation in IS.

**LITERATURE REVIEW**

In the knowledge-based-view of the organizations, knowledge is considered potential to improve organizational performance and competitive advantage and to the long term sustainability and effectiveness of organizations. Knowledge has been considered very significant components and preliminary resources in the organizations. That is why, knowledge sharing is very important for an organization. KM has systematic power to resolve the problems in the organizations. Knowledge sharing is a process of social communication by individuals and groups in the organizations where knowledge is shared by people’s ideas, views among them to come out with new concept. Knowledge sharing means individual willingness to share what they have or have created in an organization. Information systems (IS) research focuses on a diverse form of antecedents that drive on individual knowledge sharing. This requires for status, organizational encouragements and technological support. Despite the fact, numerous driving issues have been discovered. Few researches have dragged them together into a single in helpful model. Instead, Identify KS behavioural climate as incentive or drive, information management ability as capability and organizational IT support as chance. Their investigation reveals that a creativeness behavioural climate has a major influence on KS behavior and perceived organizational use of IT to backup knowledge works stand strong impacts on information management ability and advocating that IT has indirect influences.

**ANALYSIS OF KS RESEARCH MODELS IN HEIs**

![Figure-1. (Source: KS research Model of Azmi, Bakar, Shah & Hamid, 2010 for HEIs.)](https://example.com/figure1.png)
In the above KS model (Figure-1), there are six dimensions that contribute knowledge sharing as demonstrated in Figure-1. The discussion of this research model and factors have been made a research framework and conduct KS research adopting individual, organizational and technological antecedents’ altogether. Limitation of this model is that they did not adopt any IS theory in their research framework. The researchers have identified that individual, organizational and technological dimensions have influenced KS behavior.

Figure-2. (Source: KS research Model of Cheng, Ho & Lau, 2009 for HEIs).

Furthermore, in the above KS model (Figure-2), have adopted individual, organizational and technological dimensions that have influenced KS behavior. These are divided into three dimensions as demonstrated in figure-2. They have made research framework and conducted KS research adopting individual, organizational and technological antecedents’ altogether. They did not adopt any IS theory in their research framework.

Moreover, according to, the precursors that effect knowledge sharing actions, these are divided into three types of factors, as has demonstrated below in Figure-3. They delineate that the personal factors, organizational factors and technology factors have influenced KS. They have also identified that these can improve knowledge sharing and it can also make innovation activities in the universities.

Figure-3. (Source: KS research Model of Lee, Kim & Han, 2010 for HEIs.).

Shortcoming of the above model is that do not adopt any IS theory in their research model.
Additionally, in the above KS model (Figure 4), demonstrate that the antecedents that influence KS among academics and their effects on performance in HEIs comprise of four antecedents as has exposed in the Figure 4. This is also a conceptual model. The limitation of the KS research model shows that they have overlooked IS theory.

Moreover, in the following KS model (Figure 5), have also made research framework for HEIs. These are divided into three types of dimensions: individual, organizational and technological antecedents’ altogether as has demonstrated in Figure 5, and the factors adopt in the model, have been shown in Table 2. This research put emphasis on KS research for HEIs. Deficiency of this study is that they do not use IS theory. They explain that the dimensions influence KS and it makes innovation performance to the HEIs.
In the above KS model (Figure-6), have made a KS research framework and conduct a research for academics’ knowledge sharing behaviour. They have adopted IS theory namely Theory of Planned Behaviour (TPB). It has been exposed in the Figure-6. But they did not adopt individual, organizational and technological antecedents together in their research model. They have overlooked technological factors in their study.

At the end of the discussion of the research model of this paper, we expose in the following KS model (Figure-7), KS research framework and conduct a research for academics’ KS behaviour. They have adopted IS theory namely Theory of Planned Behaviour (TPB). But they have also overlooked technological antecedent in their research model. Likewise, they do not adopt KS intention in their research model. Whereas, intention to KS is a key mediator construct in TRA. Even though, they do not explain why they have ignored this important construct from their study. Therefore, it is explored in their research model that there is a limitation of construct for explaining its generalizing of theoretical underpinning. It has been uncovered in Figure-7.
RESEARCH PURPOSE AND METHODOLOGY

The purposes of this study are: (i) to explore relevant theories that can help explain the nature of KS in HEIs; and (ii) also to propose the best conceptual research framework based on comparing other existing research model in HEIs in developing countries. It has been emphasized by that “the IS research community has moved away from concentration upon the technical issues associated with IS and now tends to focus on more behavioural issues”. This study is subjective/argumentative research i.e. idea generation in IS. There has been dispute in the IS research community on the selection of study methodologies and their appropriateness of diverse features of IS research. The study has adopted IS research methodology, personifies its’ leanings to sufficiently backing technology fit in and the transmission of innovation. It is vital to operative practical IS research. Innovative study mainly establishes on belief and theory, it is worthwhile in constructing a theory that can successively be verified. The statistical tool SPSS, SEM-AMOS will be used for analyzing the data for empirical study. The unit of analysis of this further study is knowledge workers i.e. academics, working in the public universities. Five point Likert scale will be used for research instruments. Factor analysis and hypothesis will be tested based on the propose research framework and its constructs. The propose research framework is made up based on the amended model of the Theory of Planned Behaviour (TPB), Theory of Reasoned Action (TRA) and Social Capital Theory (SCT). Research instruments adapt from previous different KS studies to become accustomed with this research objectives.

RESEARCH HYPOTHESIS

H1: Academics’ intention have positive influence on knowledge sharing and universities’ innovation capability.
H2: Academics’ attitude have positive influence on knowledge sharing intentions.
H2.1: The higher the Self-Efficacy for Higher Education and Training, the higher will be the influence to academics’ attitude towards knowledge sharing.
H2.2: The higher the Leadership style, the higher will be the influence to academics’ attitude towards knowledge sharing.
H2.3: Social Network has positive influence on academics’ attitude towards knowledge sharing.
H2.4: The higher the usage of ICT Tools and Technologies, the higher will be the influence on academics’ attitude towards knowledge sharing.
H2.5: Perceived organizational Rewards have positive influence on academics’ attitude towards knowledge sharing.
H3: Subjective Norm has positive influence on academics’ intention towards knowledge sharing.
H3.1: Organizational Climate has positive influence on subjective norm towards academics’ intention to share knowledge.
H4: Perceived organizational Trust has positive influence on academics’ intention towards knowledge sharing.

THE PROPOSED RESEARCH MODEL AND PROPOSITION

Figure 8. The Proposed Research Model.
The model, proposed in this study, is an extension of TRA and TBP, with additional individual, organizational and technological constructs that are integrated with trust from Social Capital Theory. In fact, numerous theories have been useful for analyzing the prior studies of KS behavior. Among others, popular IS theories of KS are TPB and TRA and it has been broadly accepted. Both TPB and TRA have variables that can determine individual behavioral attitude, intention and subjective norm i.e. social pressure for KS motivation.

Moreover, we add the construct trust from Social Capital Theory (SCT) to elaborate the idea of KS. It is triggered from most important traditional theory of KS, i.e. SCT. SCT establishes the correlation and significance of discrete in information and KS. Even though, study has also establishes that social capital is capable to influence persons to share know-how within societies and groups [46]. Thus, SCT is now intensively used in Europe for KS research and considers as IS theory. SCT indicates to the level of trust that groups or individual as may have relations base on reciprocal systems, sets of norms and networks between social communications. SCT is based on social relations and profits for the people. If organizational people have trust to the organization, the organizational member will be more pro-active and the organization might be innovative.

Nevertheless, we have reviewed seven KS research models for HEIs. We find that the extant variables do not sufficiently explain the acceptance of KS in academic institutions and its innovative behavior. Therefore, based on the review of previous KM literature, we find it necessary to identify additional variables that can explain better and can impact on KS for HEIs in developing countries. We have added some new variables in our proposed model and assume that it can impact on knowledge workers’ attitude and intention towards KS with individual, organizational and technological factors together. By reviewing the extant KM literature, it also reveals that without technological determinants now-a-days, KS in organizations and also in personal level is almost incomplete. Because, people depends on ICT technological tools in their works both on organizational and individual level. This is why; it has a huge influence towards using technological antecedent factors along with psycho-socio determinants for KS. The constructs of this study are Perceived Self-efficacy for Higher Education and Training, Perceived Leadership, Social Network, Perceived ICT Tools and Technology, Perceived Organizational Rewards, Perceived Organizational Climate and Perceived Organizational Trust are the additional variables of IS theory TBP, that are intended to measure the perceptions of the knowledge workers’ intention regarding innovation capability of HEIs towards KS.

We have omitted the construct controllability of TPB amended model in our proposed research model. Because, prior researchers did not find its influence significant in their study. Our aim is to examine the factors that can influence knowledge sharing of academics for universities performance and innovation capability. As the following factors have been adopted in this research model and assume to have the highest effect on KS intention which is preferred for this study.

**DISCUSSION OF THE FINDINGS**

This paper discusses elaborately with special reference to other previous KS research frameworks for HEIs in the developing countries perspective. The findings based on the aims of this study, have revealed adequate idea generation in IS research with comparison of the other prior seven KS research frameworks. The argumentative idea has been established through this study. The study has explored that the proposed individual, organizational and technological KS research framework with IS theories for HEIs can be helpful to explain the nature of KS theoretical development for developing countries. The strength of this paper is to propose a conceptual research model comparison with previous other conducted research for KS among academics in the HEIs in developing countries. It might be able to boost institutional innovation capabilities.

**CONCLUSIONS**

Human behavioural intentions have significant role in organizational as well as individual level knowledge sharing activities. This knowledge sharing action is generally increased when individual, organizational and technological factors act together. Universities KS functions might be improved with a systematic way involving ICT technology. Consequently, the universities could be benefitted. Access to more KS practices in the universities is a fundamental requirement especially in the developing countries where people are still expected to be motivated by KM practices. The limitation of this study is the comparison of KS research models that find lack of technological antecedents and IS theory. The factors that influence KS are individual, organizational and technological. It is being believed that effective KS among academics (knowledge workers) might improve the innovation capability of the universities. In the future, an empirical study (cross- sectional survey-
based approach) would be conducted to assess and validate the proposed research framework. It is hoped that the continuous study will enhance the understanding of knowledge sharing in the HEIs and its impact on universities’ performance in developing countries.

REFERENCES

A MODERN APPROACH TO THE TREATMENT OF CHRONIC CATARRHAL GINGIVITIS IN ADOLESCENCE

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Raimberdieva R.R.
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RELEVANCE
This article discusses the problem of adolescent gum pathology and the prevalence of the disease among the population (Tashkent Chirchik). It offers the traditional complex and local treatment of chronic catarrhal gingivitis in puberty, as well as the effectiveness and treatment methods.

KEY WORDS: children, periodontium, inflammatory periodontal diseases, gingivitis.

DISCUSSION
The problem of gum pathology is of general medical and social importance, in general, and for modern dentistry. One of the most common gum diseases in children of puberty is chronic catarrhal gingivitis, which occurs without vivid clinical signs, which complicates the early detection and timely provision of dental care. As you know, patients turn to the dentist for help with the progression of the disease and the development of some complications.

Chronic catarrhal gingivitis in adolescence is a disease that occurs during sexual maturity. Most often observed in boys aged 14-15 years and in girls 10-11 years old.

Epidemiological data conducted in the Republic of Uzbekistan by the authors indicate a significant prevalence and intensity of chronic catarrhal gingivitis in children and it attributed to violations of oral hygiene. Scientists and researchers of Uzbekistan are constantly looking for new techniques and methods of treating chronic catarrhal gingivitis. (Alieva M.A. 1994, Yuldashkhonanova O.S., Gulomov S.S., 2004. and others).

A survey conducted in the cities of Tashkent and Chirchik showed that the first signs of the disease are already found in the milk bite, and with age, the frequency and severity of the disease increases. Gingivitis in children is observed quite rarely, especially in the age group up to 3 years - isolated cases. At the age of 6 years, they are diagnosed, respectively, from 19.46 ± 1.42% to 27.70 ± 1.29%.
In cities, a relatively low frequency of gingivitis among schoolchildren is noted, then at the age of 6-15 it increases by 1.3-1.5 times. The wave-like dynamics of the frequency of gingivitis suggests that during the growth of children, inflammatory periodontal changes can stop spontaneously. Gingivitis is 5.2 to 9.6% less common in girls than in boys [10].

The signs of chronic catarrhal gingivitis in the adolescent period include lesions of the gingival margin of the frontal teeth of both the upper and lower jaw. In girls, increased bleeding gums associated with the premenstrual period. During puberty, the excretion of sex hormones increases dramatically and progesterone production decreases. The development of symptoms of gingivitis is due to which of the hormones prevails in the body. Over the past decades, there has been not only an increase in the prevalence of periodontal pathology in adolescents, but also a significant increase in the most severe forms of these diseases [6]. Biological changes in this period are regulated by neurosecretory factors and hormones that accelerate somatic growth and development of the sexual glands, their endocrine and exocrine regulation [1]. In the initial stages of chronic hypertrophic gingivitis, periods of intense inflammatory reaction alternate with periods of remission. The authors associate this type of course with endocrine changes during puberty [2]. At the same time, periodontal tissues are not completely formed and are in a state of physiological stress for a long time [6]. Hormonal imbalance associated with puberty affects the gum epithelium, which, in turn, is due to the clinical and functional characteristics of periodontal disease. From these positions, the oral cavity is considered as an ecological system in which various biological processes, interacting together, cause multidirectional pathological processes. However, the collected data on these processes do not completely solve the tasks set for clinicians, which necessitates the search for more rational, effective and pathogenetically sound diagnostic methods [3].

Comprehensive treatment includes the elimination of local factors (fillings defects, anomalies of the dentition, etc.) and the elimination of common factors leading to this disease (treatment of concomitant diseases).

In the treatment of gingivitis, in addition to the etiological factor, the peculiarities of the inflammatory process are taken into account, which involves restoring the barrier function of the epithelium, affecting the pathological links of the inflammatory reaction, microcirculation and normalization of metabolic processes in the gums, increasing local and general resistance of the body [7]. Treatment of chronic catarrhal gingivitis with a mixture of essential lubricants in combination with bentonite clay has a positive effect, leading to a quick relief of the clinical manifestations of the disease, a significant improvement in periodontal condition indices [8]. Treatment of chronic catarrhal gingivitis begins with the rehabilitation of the oral cavity and training in brushing your teeth, with antiseptic treatment of the oral cavity. Antiseptics are taken in the form of oral bath, rinses, applications for gums. Then proceed to the removal of dental deposits. In this case, calculus and soft plaque are removed with special tools. Then, antiseptic treatment of the oral cavity is again performed. Removal of dental deposits is carried out in 1-2 times. Apply solutions of antibiotics and antiseptics, which have an inhibitory effect on the simplest microorganisms, as well as herbal products (Kalanchoe juice, calendula, tincture of celandine).

Used anti-inflammatory therapy with non-steroid drugs (0.1% solution of mefenamine sodium salt, etc.). Widely used ointments, mainly standard eye, containing antibiotics (polymyxin, diklormycin and others), 5% butadionic, 10% indomethacic, 1% hydrocortisone ointmen, 10% methyluracil ointment for gum dressings. Antibacterial ointments are also used: metrogildent mixed with zinc oxide and dentin powder; ready-made gum dressings: Septopak (Septodont), Diplendant films containing an antiseptic or antibiotic.

In the treatment of chronic catarrhal gingivitis, physiotherapy is used: gum irrigation with a saturated solution of carbon dioxide for 10 minutes, daily or every other day, for a course of treatment of 10-15 sessions. Mineral water is used to moisten the

### Table: The prevalence of gingivitis (%)(M ± m)

<table>
<thead>
<tr>
<th>Age, years</th>
<th>Tashkent</th>
<th>Chirchik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 3 years</td>
<td>1.46 ± 0.15</td>
<td>1.85 ± 0.12</td>
</tr>
<tr>
<td>3-6 years old</td>
<td>19.46 ± 1.42</td>
<td>27.70 ± 1.29</td>
</tr>
<tr>
<td>6-15 years old</td>
<td>31.11 ± 3.22</td>
<td>38.29 ± 2.37</td>
</tr>
<tr>
<td>15-18 years old</td>
<td>34.94 ± 2.98</td>
<td>42.23 ± 3.79</td>
</tr>
</tbody>
</table>
gums of the oral cavity. Electrophoresis with vitamin C, heparin, nicotinic acid is also prescribed. The course of treatment is 10 times in terms, which are prescribed daily or every other day. Gum massage (vibration, finger) is used. The course of treatment 10-15 times in term. The treatment regimen includes the appointment of calcium-containing drugs (Calcium-D3 Nycomed 1 tablet contains 500 mg of elemental calcium and 200 IU of vitamin D3) 1-2 tablets per day for 20-25 days 2-3 times a year. Treatment of exacerbated chronic gingivitis. For this, broad-spectrum antibiotics with antiseptics are used. Oral care is important. For rinsing use decoctions of sage, chamomile, lysozyme (1 egg white per 1 liter of boiled water, 1 teaspoon of table salt). For simultaneous analgesia of the gingival mucosa, lysozyme can be prepared with a 0.5% novocaine solution or lubricated with an anestezin suspension in oil. With severe exudative phenomena, proteolytic enzymes are used (lysozyme, trypsin, chymotrypsin, pruoxol, territhin, ribonuclease, pancreatin) with microcide, 1% sodium mafenamine solution, Kalonchoe juice, imanine, etc. [9].

The high prevalence of inflammatory periodontal diseases among children, the complexity and lack of radical methods of treatment, and the insufficient effectiveness of the existing system for the prevention and treatment of periodontal diseases prescript the need for new methods of early diagnosis and a differentiated approach to the treatment of this pathology.

**REFERENCE**


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MICROMYCETES OF ONION CAUSING ROT AND MOLD WHEN DURING STORAGE

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ANNOTATION

The article presents materials on the identification of the composition of micromycetes developing in vegetable stores during storage of onions. A total of 32 species of micromycetes from 15 genera and 5 fungal families were identified. The revealed mycobiota can be divided into several ecological groups: developing mainly in the field, developing both on crops and during storage, and species that affect products mainly during storage. Damage to products begins already from the first month of storage, mainly rotting and appearing with increasing average daily temperatures and lengthening the shelf life, mainly mold.

KEY WORDS: onions, vegetable storehouse, fungal diseases, gray rot, bacterial rot, black aspergillus rot, gray rot, degree of damage.

INTRODUCTION

Agriculture and other sectors of the national economy face major tasks to improve the supply of the population with good quality food, and industry - with raw materials. One of the factors affecting the quality of crop production, along with seed, growing conditions, harvesting and transportation is the storage of crops. It is known that quality deterioration and losses during the storage period can be caused by many reasons (lack of storage conditions, non-observance of storage conditions, as well as the development of pests - diseases and pests). Thus, according to the FAO, annual crop loss from diseases and pests in the world reaches an average of 30%, from 20 to 80% of the product is lost during storage, in particular the loss of potatoes, vegetables and fruits is 30% or more of the harvest (Trisyvatksy et al., 1983).

Consequently, the reduction of losses during storage is an important reserve for increasing the provision of the population and the national economy with food, and therefore, it is proposed to improve measures to combat the development of pests during storage.

PURPOSE AND OBJECTIVES

The purpose of this study is to improve the protection system for agricultural products, in particular onions, stored in vegetable stores in Tashkent and the Tashkent region. Based on the goal, the objectives of the study included:

1. the identification of the total composition of pests and the identification of the main economically significant harmful species (developing exclusively in storage facilities and recorded when laying products), the study of bioecological features of their development;

2. development of a system to reduce losses of fruits and vegetables during storage, which includes the technological part (disinfection, preventive measures to reduce the introduction of harmful organisms from the field and compliance with the storage parameters of products) and biological (development of harmful organisms in storages, the possibility of replenishment due to the introduced with the production of species, suppressing the development of pests by various methods of protection, including modern chemicals).
RESEARCH METHODS

In our studies, we adhered to the basic methods for identifying and supporting cultures adopted in mycology and phytopathology (Dudka et al., 1982, Litvinov, 1969, Chumakov et al., 1974, etc.). Identification was carried out according to the determinants N.I. Vasilievsky, B.P. Karakulin (1937), N.M. Pidoplichko (1977)) and others.

The studies were carried out in 2018-2019. in the vegetable storehouse of LLC Osiyodontayyorlovsavdo of the Almaazar district of Tashkent, the Uzbek Research Institute of vegetable and melon crops and potatoes.

Onions were stored in bulk in vegetable containers with a capacity of 420-450 kg or in polypropylene bags with a capacity of 25-30 kg. The storage period is from October to June. From October to February 2018-2019 About 300 tons of products were loaded. The vegetable store is equipped with forced-air and exhaust ventilation. The average storage temperature from October to March is +10 - 120C. Humidity 80 - 85%.

The affected samples were analyzed and studied at the Department of Plant Protection and Quarantine of Tashkent State Agrarian University.

RESEARCH RESULTS

As a result of the studies, a total of 32 species of phytopathogenic micromycetes were identified. The composition of the identified onion mycobota during storage is shown in table 1.

Table 1
The composition of the identified onion mycobota during storage

<table>
<thead>
<tr>
<th>Family</th>
<th>Genus</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mucoracea</td>
<td>Mucor Mich. ex Fr.</td>
<td>M. racemosus Fres.</td>
</tr>
<tr>
<td></td>
<td>Rhizopus Ehr. ex Cda</td>
<td>R.stolonifer (Ehrenb. Ex Fr.) Vuill.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R.nigricans Ehr.</td>
</tr>
<tr>
<td>Moniliaceae</td>
<td>Acremonium Lk. ex Fr.</td>
<td>A. murorum(Cda.) Gams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. nigerv.Tiegh.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. candidusLk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. ochraceus Wilhelm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. sclerotiorum Huber</td>
</tr>
<tr>
<td>Botrytis Mich. ex Fr.</td>
<td>B.cinerea Pers. ex Fr.</td>
<td>B.squamosaJ.C.Walker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.allii Munn</td>
</tr>
<tr>
<td></td>
<td>Cladosporium Lk. ex Fr.</td>
<td>C. Fasciculare Fries</td>
</tr>
<tr>
<td></td>
<td>Penicillium Lk.</td>
<td>P. chrysogenum Thom.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P. expansum Link</td>
</tr>
</tbody>
</table>
According to literature data (Dementieva, Vygonsky, 1988) harmful organisms harmful to stored products can be divided into several environmental groups: developing only in the field; developing both at the gathering place and in storage facilities; developing exclusively in storage. It is known that the main part of the microorganisms encountered during storage causes various rot (aspergillus, penicillosis, etc.), which are less common in the field. In contrast, the main diseases developing during the growing season (downy mildew, smut and rust) affect crops mainly in the field. Some pathogens that develop during storage (alternariosis, stemblyllosis, cladosporiosis, botritiosis, bacterial rot) enter the store from the field and, under favorable conditions, can cause various rot.

From the data presented it follows that the most common onion diseases are gray rot, bacterial rot, fusarium rot, aspergillic and penicillin rot. Based on the available literature and our own observations, it is known that at lower temperatures various rot develops to a greater extent, while at higher values, molds caused by imperfect fungi are more abundant. So, starting with an increase in average daily temperatures and an extension of the shelf life, mushroom fungi, species of the R. cladosporium, Acremonium, Cephalosporium, Trichotecium, and Alternaria species begin to develop. Each group of organisms has its own critical and optimal development parameters, and when preparing the material for laying, according to the technological map, the products must be prepared for storage. So, the harvested crop must go through certain stages of preparation before it is laid for storage (sorting, ripening) and after laying (treatment period, cooling period, main in spring), which differ in environmental conditions.

<table>
<thead>
<tr>
<th>Taxonomic Group</th>
<th>Genus and Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dematiaceae</td>
<td>P. hirsutum Dierck.</td>
</tr>
<tr>
<td></td>
<td>P. notatum Bain.</td>
</tr>
<tr>
<td></td>
<td>P. purpurigenum Stoll</td>
</tr>
<tr>
<td>Trichotecium Lk. ex Fr.</td>
<td>T. roseum Lk. ex. Fr.</td>
</tr>
<tr>
<td>Alternaria Nees ex Wallr.</td>
<td>A. alternata (Fr.) Keiss.</td>
</tr>
<tr>
<td></td>
<td>A. tenuissima (Fr.) Wiltsh.</td>
</tr>
<tr>
<td></td>
<td>A. porri (Ell.) Cif.</td>
</tr>
<tr>
<td>Stachybotrys Cda.</td>
<td>S. lobulata Berk.</td>
</tr>
<tr>
<td>Embillisia Simmons</td>
<td>E. Cladospora (Hoes et al.) Simmons</td>
</tr>
<tr>
<td>Stemphylium Wallr.</td>
<td>S. botryosum Wallr.</td>
</tr>
<tr>
<td>Tuberculariaceae</td>
<td>Fusarium Lk. ex Fr.</td>
</tr>
<tr>
<td></td>
<td>F. javanicum Koord</td>
</tr>
<tr>
<td></td>
<td>F. lateritium Nees.</td>
</tr>
<tr>
<td></td>
<td>F. sporotrichiella Bilai</td>
</tr>
<tr>
<td>Mycelia sterilia</td>
<td>F. oxysporum Schlech.</td>
</tr>
<tr>
<td>Sclerotium Tode</td>
<td>S. cepivorum Berk.</td>
</tr>
</tbody>
</table>

Total: 5

15

32
CONCLUSION
1. Onion mycobiota during storage totals 32 species of micromycetes from 15 genera, 5 families of fungus.
2. There are 3 main ecological groups of fungi existing in vegetable stores: developing in the field; developing both at the gathering place and in storage facilities; developing exclusively in storage.

LIST OF REFERENCES
MYCOBIOTA SEEDS OF ONION IN THE CONDITIONS OF THE TASHKENT REGION OF UZBEKISTAN

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ABSTRACT

In this article the issue of avoiding the pythium rot on onion upon storage is considered also the article presents the results of studying the composition of onion diseases and their pathogens. 2013 to 2019 A total of 56 species from 29 genera of phytopathogenic fungi were identified, of which 27 species were first noted onions in Uzbekistan. The most widespread and harmful diseases of onions upon storage in Uzbekistan is rottenness, including Fusarium blight, black rot and blossom blight (aspergillosis and penicilliosis), also rottenness, caused by imperfect fungi, are noted, which cause: Botrytis alii, B. cinerea, Aspergillus niger, Penicillium expansum, Trichothecium roseum, Cladosporium herbarum. Rare lesions caused by the pathogens Urocystis cepulae and Puccinia alii were less common.

KEYWORDS: onions, storage, onions diseases, fungi micromycetes, blossom blight, Fusarium blight, fungicide, consumption rate, development intensity, biological efficiency.

INTRODUCTION

Agriculture produces basic food products, as well as raw materials for food and other industries. The main objective of the agro-industrial complex is to improve product quality, eliminate its losses at all stages of production, transportation and storage. The task of agriculture is not only to create a crop, but also to protect plants from pathogens and pests.

Due to its nutritional value, the value of onion is not in doubt. The study of plant diseases, the composition of pathogens and their biology is the first step to further study the environmental laws of the formation of mycobiota, and also forms the basis for the development and optimization of a system of measures to protect the crop from harmful organisms.

Phytopathogenic micromycetes - pathogens of plant diseases causing damage to agriculture cause the natural interest of mycologists and phytopathologists, because, one of the serious reasons that impede the cultivation of crops is the spread of diseases. The yield loss of onion crops from various diseases during the growing season and storage is at least 10% annually, and in adverse years - up to 30-50% and higher (Nikitina, 2008).

Despite the enormous importance of onions, the mycologists and phytopathologists of Uzbekistan practically do not cover the composition of onion pathogens and measures to against them.

Between 2013 and 2019 we conducted our own research to identify the composition of onion diseases on the fields of farms in the Tashkent region and in vegetable stores in Tashkent and the Tashkent region and to develop a system for combating onion diseases. An analysis of the data obtained is given in this material.

Onion sowing was carried out in the winter and spring sowing periods of 2013-2019. Winter sowing of onions was carried out in October, harvesting in late April and early May, spring sowing in March, harvesting in September.

During the study period, 56 species of phytopathogenic micromycetes from 29 genera, 11 families, 7 orders and 4 p/ divisions were identified. The revealed composition is presented in table 1. Of
these, 27 species were first recorded onions in the conditions of Uzbekistan.

Of the total number of species, the most common in the field in the Tashkent region were 9 species. The obtained data are shown in table 1.

Table 1.

The composition of the identified major pathogens from onion crops.

<table>
<thead>
<tr>
<th>Subdivision</th>
<th>Family</th>
<th>Genus</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastigomycotina</td>
<td>Peronosporaceae</td>
<td>Peronospora Schr.</td>
<td>P.schleideniana Cornu</td>
</tr>
<tr>
<td>Basidiomycotina</td>
<td>Tilletiaceae</td>
<td>Urocystis</td>
<td>U.cepulae Frost.</td>
</tr>
<tr>
<td></td>
<td>Pucciniaceae</td>
<td>Puccinia</td>
<td>P.allii (D.C.) Rudolph</td>
</tr>
<tr>
<td>Deuteromycotina</td>
<td>Moniliaceae</td>
<td>Botrytis Michel ex Fries</td>
<td>B.cinerea Pers. ex Fr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. squamosa J.C.Walker</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dematiaceae</td>
<td>Alternaria Nees ex Wallr.</td>
<td>A. porri (EIL)Cif.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A. niger v. Tieght.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cladosporium Lk. ex Fr.</td>
<td>C. herbarum Pers. ex Lk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stemphylium Wallr.</td>
<td>S. botryosum Wallr.</td>
</tr>
<tr>
<td></td>
<td>Tuberculariaceae</td>
<td>Fusarium Lk. ex Fr.</td>
<td>S.ali Oudem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F. oxysporum Schlech.</td>
<td></td>
</tr>
</tbody>
</table>

When analyzing the composition of the main diseases, it can be noted that the bulk of the identified mycobiota belongs to hyphal fungi (por. Hyphomycetfles) and one species causing downy mildew belongs to the order Peronosporales.

Starting in 2013, we most often and commonly observed onion crops were downy mildew or peronosporosis - Peronospora schleideniana Cornu. (= Pdestructeur), then fusarium rot and leaf blotch caused by species of the river Botrytis, Alternaria, Cladosporium, Stemphylium. Lesions caused by smut and rust caused by pathogens of Urocystis cepulae and Puccinia allii were less frequently observed.

The life process of fungi, their growth and development, as well as parasitic activity is largely determined by environmental conditions, where the combination of relative humidity and temperature are crucial for the nature of the development of the pathogen. The remaining elements (light, wind, atmospheric pressure, etc.) in most cases only correct the influence of the main factors [6].

Each fungus is characterized by a certain range of development temperatures with the presence of cardinal minimum and maximum points that determine the boundaries of the activity of this species. The best development of the pathogen occurs at optimal temperatures, which for most fungi are in the range of 18-25°C (Yachevsky, 1935, Goiman, 1954, Garibova et al., 1975).

Despite the influence of temperature on the infection process, spore germination and growth rate of growth tubes, the value of this factor for infection is inferior to humidity.

The spores of many lower fungi, and specifically peronosporose ones in our work, are very demanding on moisture and germinate in the presence of drip-liquid moisture (Gaponenko, 1972, Popkova, 1989). Less demanding are all forms of sporulation of rust, most of the gnarled, imperfect fungi that A.A. Yachevsky attributed to the group of mesophytes.

Therefore, the normal development of fungi occurs at the corresponding values of temperature and humidity, which in turn depends on the seasons of the year, which differ from each other in their climatic characteristics.

Our own observations show that the bulk of onion diseases, besides peronosporosis, are noted in the summer.

Peronospora schleideniana is observed in mid-spring, reaching maximum development of the disease in May. The first symptoms - yellowish spots with a superficial gray-violet bloom of the mycelium and pathogen spores, begin to appear in April, later the spots merge giving oppressed sluggish yellow leaves - the arrow of the plant. In early summer, plaque on the affected parts of the plant is practically not observed. Often secondary parasites settle on the affected parts of the plants, as a result of which the leaves are covered with a black coating.

Urocystis cepulae is observed in late spring (May) - early summer, when the leaves show a different shape and size of convex lead-gray swellings covered by the epidermis, which quickly blacken and crack, resulting in the release of a mass of black spores of the fungus.

Onion rust is most often observed in June-July, when uredinia is visible on the leaves, telium is observed in August-September.

Spotting caused by imperfect fungi was noted from the second half of May until the end of the growing season.
CONCLUSION

Based on the foregoing, we can speak of a very abundant composition of phytopathogenic fungi and the main most harmful diseases of onions are peronosporosis, root rot and various spotting. The data obtained should form the basis of the control system with the help of integrated protection including agrotechnical, biological and chemical methods.

LIST OF REFERENCES

REFLECTIONS ON PUBLIC ADMINISTRATION IN KHOREZM IN THE EARLY MIDDLE AGES

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ABSTRACT

Although there is a lack of written sources on the history of Khorezm’s early medieval, it is also one of the few archaeological topics. Especially its political history or the history of the «Afrigiy» dynasty is still one of the least studied pages of Khorezm history. Therefore, this problem of Khorezm history requires a deeper study not only of written sources, but also of archeological and numismatic sources, and it is worthwhile to revisit many of the ideas expressed in the history of the early medieval Khorezm.

KEY WORDS: political events, archaeological, ideogram represents, numismatic sources, economic situation.

INTRODUCTION

After all, this problem can be solved by a deep scientific comparison of written sources of the early medieval Khorezm, especially in the work of our great ancestor Beruni, not only archeological but also numismatic. It is worth noting that some work has been done in this regard. However, this problem has not been fully solved, but only new ideas have emerged. At the same time, these new perspectives have not yet been fully integrated into science, but textbooks and many academic publications still reflect previous views. In particular, the textbooks and manuals of all educational establishments in Khorezm region today still contain information based on old attitudes. We will discuss these new views below.

In general, we think it is appropriate to look at several sources and periods covering the history of the early medieval Khorezm period before the Arab invasion. In particular:

1. Byzantium and Chinese sources of the V - VII centuries;
2. It can be subdivided into Arabic-Persian sources of VIII - early XIII centuries.

The sources of the first group are very short and inaccurate, and they mention Khorezm mainly with regard to certain political events. In particular, the Byzantine historian Menander describes in his work the rise of the Afrigiys (ancient dynasty) to power, the names of their 22 rulers, which is still a comparative source for numismatic and archaeoological data.

Before studying the history of this dynasty, it is necessary to analyze the history of Khorezm from the first century AD. In particular, during this period a new dynasty in Khorezm began. In the inscriptions of copper coins of the I-III centuries there are two representatives of this dynasty - Artav and Artamush.

Khorezm as a land of Khaalith or Kholith). According to one Chinese source, Tan - shu, in 751 Khorezm sent ambassadors from China to Khorezm, Shaoshifen (Savshafan), and in 762 from Khorezm, Turksaba, to help fight the Arabs[1].

The sources of the second group are mainly Arab-Persian sources, which provide information on the history of the Arab invasion, the period of the Arab invasion, and the political history of the post-Arab period. These are especially valuable in the books of Tabari's "History of Ar-Rusul va-l-Muluk" ("The History of the Prophets and Kings")[2] and Abu Bakr al-Balazuri's «Kitab al futuh al-buldon (The Book of the Occupation of the Countries)[3] is calculated.

MATERIALS AND METHODS

The work of our great ancestor Abu Raykhan Beruni “Osor ul-bokiya al-kurun al holiya” (“Monuments of past generations”)[4] is of great importance. In his work, Beruni publishes the first medieval history of Khorezm, which also contains information that is never found in other sources. For example, his work traces the rise of the Afrigiys (ancient dynasty) to power, the names of their 22 rulers, which is still a comparative source for numismatic and archaeological data.

Before studying the history of this dynasty, it is necessary to analyze the history of Khorezm from the first century AD. In particular, during this period a new dynasty in Khorezm began. In the inscriptions of copper coins of the I-III centuries there are two representatives of this dynasty - Artav and Artamush.
Beruni also provided information on the succession of the Afrigiy dynasty and its first representatives[5]. This event has been traditionally dated to 304-305 years. However, a new approach has emerged this year on the basis of numismatic materials. According to him, the first king of the dynasty was Vazam (Afrig). Vazam is the king's name, and Afrig is the family name. It was therefore suggested that the dynasty be called the Vazamaries (Afrigians).

Given the date of the first year of the reign of King Vazam, it is estimated that the Vazamaries (Afrigians) ruled over Khorezm for more than 600 years before the Khorezm Mamun[6]. Khorezm at that time was more independent than any other property. The country was ruled by the kings of the Afrigiy dynasty and engraved on their behalf copper and silver coins.

Another reference to Khorezm's political system is the presence of "khissrav" and "bagpur" titles. The title "Khissrav" is first mentioned in the work of an Arab author Bal'am as a ruler of a certain area called Hamger or a governor of Hamger[7]. According to the famous Khorezmian scientist S.P. Tolstov, the two titles were used simultaneously on the eve of the Arab invasion in Khorezm. In other words, the Khissrav-Khorezmshah was a secular ruler and a secular ruler who, in association with him, ruled[8]. However, and this idea was later rejected by another well-known scientist B.I. Weinberg, who argued that both titles were applied to the same ruler at the same time, but could not explain why[9].

RESULT AND DISCUSSION

However, a number of Khorezm inscriptions and language documents from the Tuproqqala fortress contain some information about the administrative administration existing in Khorezm. In the 19th-century wooden document, the Aramaic ideology of "qilahayya – lh – "LHY" comes from the Aramaic word 'Allah', which means 'God'. We can say that this ideogram represents not the "god" in the context of the text, but the "divine ruler" sent by God. We find that the "Khorezmian"Љн came here in the form of "LH"[10]. Among the officials of the palace: prmt'r – the title "chief economist", or exactly the title of "decreeor", is stated in the document G-XVIII / 1-4. The title is also found in the archives and inscriptions found on Mount Mugh, and comes in the form of a prnшўь – framandar[11]. It can be seen as an example of a region-specific governance tradition. This title and position is inherited from the ancient colonial era and later rule, and it is also found in Sassanid Iran, except Sogd and Khorezm. In his role as the title holder, we think he was the prime minister and decided to handle economic affairs throughout the country. One can

suppose that in Khorezm, as in Sogd, the "farmonbordar" (commander) worked equally with the ruler in the internal administration. The king seems to be responsible for the general situation and the political administration, but he seems to have been responsible for the "commanding" economic situation, domestic supply, state warehouses and the palace treasury.

From the documents found in Tuproqqala, the inscription on the ceramic plate G-16 / 4-3 contains the title srk‘r – "sarkor". Occasionally, the documents include the srк’r’n - "sarkaroi" (line G-16 \2-1-1) and the srk‘r’ - sarkora (G-12 (7)). It can be said that the job of this title or official is to lead certain areas, that is, the leaders who are the leaders, that is, the "ish boshi" (bosses) who govern most of the artisanal settlements or villages. They are, in our opinion, responsible for the quality and quantity of products that come to the palace.

Line 3 of the XIX document notes the phrase "Bu Anbatax xudo (?) (janob)" ('To this Anbatak God (?) (Mr.). It is difficult to determine whether this person was a Khorezmian or a senior in the palace.

So, we cannot give any other information, except this information on the history of Khorezm statehood of the early Middle Ages. In fact, during the Arab occupation almost all written sources on the history of Khorezm were destroyed.

CONCLUSION

In general, the history of these periods in Khorezm still requires a great deal of research. In particular, it is necessary to analyze the data of written sources first and foremost with the numismatic sources. At the same time, data from other ancillary historical sciences, including archeology, ethnography, anthropology, toponomics, and onomastics, should also be used to substantiate these problems.

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PUBLIC ADMINISTRATION AND POSTS DURING THE KHOREZMSHAHS

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ABSTRACT
This article gives information about the state of Khorezmshahs, which existed in Central Asia in the XI-XIII centuries. The management system, positions, and titles in this state are highlighted.

KEYWORDS: cultural centers, management system, administrative matters, system of government, interstate relations.

INTRODUCTION
The state of Khorezmshahs was founded on the modern territory of Central Asia and was considered one of the cultural centers of this territory. Geographically, Khorezm was located on the outskirts of the Amu Darya for this reason in the 11th-13th centuries, according to archaeological and scientific research, as well as written sources, irrigation agriculture, handicraft, trade, urban construction, science and culture were developed here.

In the second millennium AD Khorezm was considered a great state of the world. But, of course, to achieve this status their existed management in the degree of dominion. In the management system of the Khorezmshahs, the totality of the dargohs and sofas have a certain meaning. Executive power was led by sofas, at the head of this system were vezirs (the main vezir).

The head of the central government of the state Khorezmshahov (al majlis al oliy al fakhriya), considered the highest position, was called a vezir. Vezir was an adviser to the ruler and was subordinate only to him. The vezir participated on behalf of the ruler at official events, interstate relations, discussions held with the colonies, was an intermediary between the ruler and the population, in addition to the vezir, all officials and the head of the military were subordinate. Vezir, being the head of the devans (askhobaddavin), had the right to appoint or change them, introduce pensions (arzak), material assistance (majavib), and also controlled the activities of the treasury.

MATERIALS AND METHODS
The position of a vezir was considered highly respected, in one of the letters of Sultan Sanjar it is written: the highest institution is considered to be a vezir (vezirism), social affairs are connected with it and the choice of the right path for people, as a result, the greatness of the state is exceeded, the order in the state is established. The vezir should be a person who knows the laws, the future of the state, insisting on good deeds and the instructions of which can be fully trusted [1].

Here it is necessary to quote the words of the great commander and statesman Amir Temur “if a vezir is an oppressor and a vezir is fair, then he tries to stop oppression, and if a vezir is an oppressor, the state will soon break out” [2].

The vezirs were awarded the ranks of sadr, dastur, Khojai Buzruk, the vezirs distinguished themselves with their inkwells and a headdress made of cloth. Vezira was accompanied by 4 warriors with a spear hilt which was plated with gold. The Khorezmshahs vezirs have always been from Arab-Persian officials. When choosing a vizier, they took into account knowledge of the Arabic and Persian languages, ability in administrative matters, and also he had to know the order in the palace, it was not taken into account whose descendant he was. During the reception, Khorezmshahs allowed them to sit on their right side. The vezir sat in a black chair in the devanhana, and the vezirs, awarded the title of Nizom al-mulk, greeted those who came (even if he were a prince) to the devanhana without getting up.

In the state of Khorezmshahs, the position of vizier was first introduced during the reign of Atsyz [3]. In the state of Khorezmshahs there is a way of management that does not meet in other states, here there were vezirs managing the region. In written sources it is written that during the reign of Jaloladdin, in each region there was a separate managing vezir.

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The chief Hajib or the great Hajib was considered the highest position. Hajibs were usually from the Türks. Hajib organized a reception event.
Ustazdar was the head of the servants and ran the stables and the bakery. He conveyed the orders of the Shah to the servants. All expenses of the barn officials were assigned to him [4].

RESULT AND DISCUSSION

If we talk about the Devans, they remained in a low order from the time of the Seljukids. The devan of the essay was involved in the compilation of official documents, correspondence, and therefore it was called the devan of essays. Devan of essays and those working in this devan should have a good knowledge of spelling and grammar. The devan of Istifa was engaged in financial affairs, with the measures of state control of the devan ishraf, and with the military, more precisely, the control of the military unit, provision of them with weapons, land and water control on the lands allocated to the military was carried out by the devani arz. Another devan is devani hos. He was engaged in the issue of land, water and wages to the Mamluks of the Khan.

Amir-ohur (mirahor) - the head of the Khan's stable.

Amri Shikor organized the hunt of the Sultan. Sayfiddin Turt Abo was the Amri Shikor of Sultan Jalaluddin. Tashdar is the head of the Sultan baths and a pond. Under his leadership were several ghouls. Tashdars were close people of the Sultan. The sultan appointed the most reliable people to this position. For example, when Anushtegin in the palace of the Seljukid ruler Malik achieved such a position, he was given sheikhism that corresponded to this position in the region [5]. Because all tashdar expenses were covered by taxes from the Khorezm population. Tashdar Alauddin Muhammad raised Ayaz to the degree of malik (sultan), gave 10 thousand horse detachments.

Sultan Jalaluddin also gave Farrukh the title of malik, and he also served as personal ambassador. Winemaker (Sharobdor) - head of the wine department of the Sultan. Usually, he was one of the emirs, in his hands were subordinates who were experienced in this matter.

Kissador - during the week he collected applications and petitions at night from Thursday to Friday, handed them over to the Sultan, and the next day he distributed the sultan’s answers to the owners of the statements. In the state of Khorezmshahs, the Kissador was one of the prestigious posts. Choshnigir - when they set the table for the Sultan, he was the first to try all the dishes in order to avoid the poisoning of the Sultan. Sultan Jalaluddin’s choshnigir was Sayfuddin Tugrul. Amirul Alam (Alamdor) - the owner of the Sultan flag or tugboat [6].

Dawatdor is a writer of unique books and decrees of the Sultan. The head of the Sultan’s eluga was considered the head of the people who dealt with complaints inside the sofa. Mustahdam (Imperatives) - a former rider, led by employees who were involved in the general affairs of the barn. Mustahdams and riders served under his hands. And, therefore, just as there are small leaders in the army with the rank of rider, riders also served in the barn. During the campaigns they accompanied the Sultan, served as an ambassador. Lazy officials who could not complete their tasks as required were punished by the Sultan. For example, the former rider Kamoliddin was hanged for his carelessness when taking the Ismailis [7]. Mehtari mehtaron was the head of the Mehtar, i.e. noble servants of the sultan. In addition to them, the Sultan had other employees [8].

During the period of the Khorezmshahs, including Jaloladdin, the emirs of the shed were elected by trusted rulers from among the subordinates, i.e. of slaves whose ancestors were Turks. These emirs commanded a sufficient number of troops, and these troops were not used and constituted the guard of the ruler. In addition, ambassadors were elected from among the emirs; there is a lot of information about this in the sources. For example, the sultan sent his tashdor as an ambassador to the queen of Gurzhistan.

The barn emirs had their own flags. The flag of the tashdor depicted a bow at a silohdor, a jomada pond. Under his leadership were servants who were involved in the general affairs of the barn. During the campaigns they accompanied the Sultan, served as an ambassador. Lazy officials who could not complete their tasks as required were punished by the Sultan. For example, the former rider Kamoliddin was hanged for his carelessness when taking the Ismailis [7]. Mehtari mehtaron was the head of the Mehtar, i.e. noble servants of the sultan. In addition to them, the Sultan had other employees [8].

CONCLUSION

This indicates that during the reign of the Khorezmshahs, depending on how officials roughly performed their tasks, they were given additional ranks and promotions. This in turn can be said to have been an impetus for officials to responsibly carry out their tasks. This system of government in the state of Khorezmshahs can be relatively attributed to many states that existed at that time.

REFERENCES

LAND OWNERSHIP AND TAX SYSTEM IN CENTRAL ASIA DURING THE ARABIC CALIPHATE

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ABSTRACT
After Arabs invaded the central Asia, they set their army in that city and control under the population at that moment. After Movaraunnakhr passed to Arabic control, there were so many farmers who were respectful they were kept as previous. By the middle of the 8th century political power in the Movaraunnakhr region was adapted to the political system of the Arab caliphate. Khokimyats were obliged to submit to the deputy Khokim, despite the fact that the administrative and administrative method under the authority of provinces and other rulers maintained their form.

KEYWORDS: urban and rural area, middle age author, economic life, population, Arab caliphate.

INTRODUCTION
During VIII age arab’s richest population and farmers combined with each other and that time many richest farmers. Large own Land and property passed to Arabic richest military population. Native population especially mens sent under compulsion to Arab’s army component. As a result of army, one parts of population killed and another part become prisoner. Arabs put own army into all urban and rural area and they tried to collect the tax from the population and sent to them community works.

There were disagreement and contrast among ownership, this problem was caused to intervention of arabics or passed poverty from once two twice.

Gave information middle age author, there were farmers had village communities, they paid the tax which was Khiroj. Farmers lived free fortress they had army who supplied with weapon.

This type of military men was named rod. Farmers obeyed to caliphate duty among spokesman who lived native population worker population, especially kadivar, kashovor’s and also slave rent a land from farmers to work and paid the tax. If there were disagreement among farmer’s own home or fortress caliphate sort out this problem. Each legal problem’s looked through and based the islam’s laws[1].

MATERIALS AND METHODS
Many local leaders have embraced Islam in order to preserve their rights and privileges. Those who did not convert to Islam would lose their property or pay large sums. In order to keep the economic life out of the hands of the Arabs, the sassanids imposed a tax system in the occupied territories.

These are mainly:
1. Qavonin or mukatia a gathering of treasures from small provinces and districts.
2. The purpose is to pay a certain percentage of the harvest. The amount is determined by irrigation.
3. Copper is a quantitative tax based on the size of the land and does not care whether or not the ten crops are planted[1].

The tax system includes land tax (one-tenth or one tenth of the crop) livestock, crafts, zakat (one-for-one), and the jizyah tax for non-Muslims.

According to modern scholarly literature, the center of control of the Arab conquered territories in central Asia is Marv, and hence Movounnakhr and Khurasan were ruled by the Khaleefah.

As we have already mentioned, by the middle and the end of the 8th century political power in the lands of Movarounnakhr and Khurasan had been adapted to the political system of the Arab caliphate.

RESULT AND DISCUSSION
During this period, the main task of the local Khokims in Sogd, shash, Ferghana, Khorezm, Usturishona, Takharistan was to spread the ideas of Islamic region among the population. The activities of local Khokimyats are largely controlled by the Khaleefah. Moreoner, they obey the Khaleefah’s deputy in Khurasan was a must. Following the Arab invasion Muslim legislation was also introduced in Movarounnakhr. The shariah, which is the basis of Islamic jurisprudence, relied on the Holly Book of
Hadith and the answers and decisions of scholars of science. Another point is that the prevailing nature of Islam in terms of morality and discipline has led to its rapid adaption by the Arab population. Like Kutayba it is not possible to bring him under aggression and violence. As soon as the essence of Islam reaches its core, its motivation and belief will grow[2].

CONCLUSION

By the middle of the 8th century political power in the Movaranaakhir region was adapted to the political system of the Arab caliphate. The administration of the Bukhara khuds and other rulers in Sogdiana was obliged to submit to the Khalifah’s deputies, despite the fact that the form of the administration office had retained its form, most of the local rulers had embraced Islam in order to preserve their right and privileges. The nodes who did not convert to Islam were deprived of their land or paid compensation.

REFERENCES

COMPETENCY BUILDING APPROACH IN THE FORMATION OF IC-ABILITIES IN FUTURE CHEMISTRY TEACHERS

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ABSTRACT
On the given article are discussed the formation of information and communication skills of future chemistry teachers, based on a competency building approach. Creation of crosswords in chemistry in the Hot Potatoes JCross program is considered as means of positive motivation to use information technology to master the future profession.

KEYWORDS: Competence, skills, competency building approach, professional training, information technology, educational process, Hot Potatoes JCross program.

INTRODUCTION
At the present stage of the search for the most efficient use of human resources in almost all areas of activity, more attention has been paid to the competency building approach. A new approach to the professional training of a person trained to act actively and constructively today consist in developing a competency building approach to the formation of educational system. In the system of training specialists, the competency building approach is based on such concepts as “competence” and “competency” [1-2].

Competency – oriented higher education is an objective phenomenon in education, brought to life by socio-economic and pedagogical prerequisites. This is a reaction of higher education to changing socio-economic conditions, when the market imposes new requirements for the content of education as for goals, results and pedagogical teaching technologies [3]. As a goal in modern education, the formation of a specialist’s competencies corresponding to his profile is considered. The competencies and competences of students today act as an integral socio-personal and behavioral phenomenon as a result of education.

MATERIALS AND METHODS
Recently, the training of specialists from the standpoint of a competency building approach has been increasingly discussed, since competence and competence act as an integral social and personality-behavioral phenomenon as a result of education [4]. A qualified specialists must be competitive in the labor market, to be fluent in the necessary information to navigate in related fields, must be ready for professional growth, have adaptive ability to constantly changing conditions.

The conditions for the implementation of the competency building approach in the organization of the educational process are:
- focus on the productive nature of educational and cognitive activities and the development of students’ creative abilities;
- the use of forms and methods of training and education ad to the adequate to the updated content;
- technologization and algorithmization of activities;
- a high level of teacher professionalism and development management of his professional competence.

Unlike the qualification approach which is focused on the formation of a specialist’s system of knowledge, skills and abilities to perform, as a rule typical kinds of professional activity the competency building approach involves the formation of a teacher’s social and professional competence (integrated educational outcome), which contributes to a more effective solution of professional problems in a rapidly developing society.

The modern education system, the formation of which is connected, inter alia, with informatization and the practical use of information technologies in the educational process, puts forward among the priority tasks the formation of a teacher’s professional competence in the field of using information technologies in teaching, which requires modernization content, and improve the quality of teacher education [5-7].
Currently, more and more attention is paid to the problem of providing the education sector with the methodology and practice of developing and making optimal use of modern means of information and communication technologies, focused on the implementation of psychological and pedagogical goals of training and education.

The goal of our model is to form professional competencies among future teacher of chemistry using information technologies (information competence), which means the ability to search independently, analyze and select the necessary information, organize, transform, save and transmit it using real objects and information technologies. This competence provides the student’s activity skills with information from various subjects and educational fields, as well as contained in the surrounding world. This goal determines the choice of all other structural components of the model.

RESULT AND DISCUSSION

In accordance with the goal, tasks were set, such as the formation among students:
- positive motivation to use information technologies to master the future profession;
- knowledge, skills and abilities to use information technology for self-education, as well as teaching students;
- system of knowledge, skills necessary for the implementation of professional activities;
- professionally significant personality traits of a chemistry teacher.

All ICT tools that a teacher can use in the lesson have great educational potential, it is important to use it correctly in a competent manner. The use of electronic publications in the educational facilitates the lesson, allows to use individual, differentiated approach in the feedback between the student and the teacher, provides significant assistance to the teacher in preparing for the lesson, thereby motivating him to use ICT. Interactive teaching tasks have a positive effect on the motivation of students and their interest in the material being studied. In order to increase computer literacy, you master the creation of chemistry crosswords on a personal computer (PC) in the Hot Potatoes JCross program (a special program for compiling crosswords).

First, compile a crossword puzzle layout on a PC. Next, enter the meaning of each term horizontally and vertically. After that, save and ready-made template Pic. Number 1 appears on the screen. As students answer, the crossword puzzle will be completed and at the end the percentage of correct answers will be displayed [7].

The use of interactive tests helps to increase the level of information and communication literacy not only teachers, but also students and aimed at solving the most important tasks of education – to teach a school graduate to work hard in the world of global informatization.
The use of interactive tests is aimed at formation of educational, cognitive, value-semantic, informational and communicative competencies. The competence of personal self-improvement is manifested in the aspect of intellectual self-development, emotional self-regulation, independence and self-esteem.

CONCLUSION

In our opinion, the indicated model with approaches listed above makes it possible to make the process of the continuous formation of the IC competence of teachers in chemistry in the information educational space of school focused to determine the correspondence of the goal to the final results.

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SHAKESPEARE’S SONNETS IN TRANSLATION OF RUSSIAN POET S. YA. MARSHAK

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ABSTRACT
The present article describes the features of translations of William Shakespeare’s sonnets by Russian poet Marshak. Marshak brought Shakespeare’s sonnets closer to our time, he made them part of the poetic treasury owned by Russian people of the 20th century. Before Shakespeare’s plays, no matter how weakly or incorrectly translated them, they pushed their way onto the stage, to the minds and hearts of the audience of Russian theaters, the strength of tragic characters, the power of author’s thought and the picturesqueness of images overcame the screen from approximate, and sometimes false words. Lyric poetry is too closely related to the sound of the word, so that it could defend itself in spite of bad translations. Shakespeare’s sonnets in Russian literature before Marshak did not exist, although they were often translated a lot. The theoretical part of the article is proved by examples due to the applied theme.

KEY WORDS: sonnets, Renaissance, poetic form, euphuists, abstraction, mysterious obscurity, imaginary elevated, traditional poetic form, stylistic system.

INTRODUCTION
Shakespeare’s lyrical work belongs to the era of the English Renaissance, when the poetic tradition was powerful, but people already acquired aesthetic value, the unique individual features of his emotional world. A. Anikst points out the heterogeneity of Shakespeare’s poetry: “Shakespeare expresses the personal in the traditional poetic form, subject to various conventions, and in order to fully understand the content of” Sonnets, “it is necessary to keep these conventions in mind”

MATERIALS AND METHODS
Shakespeare himself has repeatedly formulated his aesthetic program, fundamentally directed against the conventions such characteristic of the English poetry of his time. This program was especially pronounced in the 84th sonnet:

Кто знает те слова, что больше значит
Правдивых слов, что ты есть только ты?

(. . . . . . . . . . . . . . . . . . .

Кто простор тобой назвал.

(Translation of S. Marshak)

An equally energetic polemic is conducted by the poet in the 130th sonnet, where the deprived description of the woman he loves is directed against modern Shakespeare euphuists, who called her eyes - the sun, her mouth - corals, compared her cheeks with damask roses, and the whiteness of her skin with snow.

An equally energetic polemic is conducted by the poet in the 130th sonnet, where the deprived description of the woman he loves is directed against Shakespeare’s contemporary euphuists, who called her eyes - the sun, her mouth - corals, compared her cheeks with damask roses, and the whiteness of her skin with snow.

My mistress' eyes are nothing like the sun;
Coral is far more red than her lips' red;
If snow be white, why then her breasts are dun;
If hairs be wires, black wires grow on her head.
I have seen roses damask'd, red and white,
But no such roses see I in her cheeks...

Translation of S. Marshak:

Ее глаза на звезды не похожи,
Нельзя уста кораллами назвать,
Не белоснежна плеч открытым кожа,
Researchers compare this sonnet with the idealizing poem of Shakespeare's contemporary Bartholomew Griffin, built on imaginary elevated, traditional stamps:

My lady's hair is threads of beaten gold,
Her front the purest crystal eye hath seen,
Her eyes the brightest stars the heavens hold,
Her cheeks red roses such as seld have been.

Even more revealing is the comparison of the 130th sonnet with the poem of Thomas Watson, sustained in the same vein as Griffin’s sonnet.

Commenting on the 130th sonnet, another researcher contrasts the style of Shakespearian sonnets with the style of John Lily, a famous representative of the ephuisitic "academic poetry", a master of the ephuisitic style (song "Cupid and Campasp"), and concludes: "The triumph of the" dark lady "over the painted dummy of ephuisits and their supporters is that this is the triumph of an individual, uniquely beautiful living image over abstraction ".

Although, definitely, R. Samarin does not deny Shakespeare's connection with ephuisits ("... Shakespeare's attitude to the poetry school he disputes is not without objective recognition of its merits" - ibid., p. 76). It is in this paradoxical combination of the traditional and the personal, in the variable proportions of these two principles - the key to Shakespeare's stylistic system as a lyric poet.

Mature Marshak is a poet of the Pushkin school. His contemporaries destroyed the rhythmic inertia of the Russian classical poem, created new forms of imagery, delved into the depths of root words, torn off from the rational structure of the image in the name of associative poetic thinking, moved away from the smooth melody of traditional two- and three-syllable sizes to an accented verse, from solemn lyrical recitation - to a rally exclamation, from a logical lyrical plot - to the most complicated installation of figurative fragments, to the unbelievable for the last century conjugation of “distant ideas”. Marshak always remained faithful to the classical traditions of the Pushkin era and protected these traditions with irresistible perseverance. The logic of the figurative system, the deliberate adherence to poetic forms, sanctified by a century of practice, laconicism, the concentration of distinct thought and the experience that has lingered in the word are such features of Marshak's art. Here is his characteristic eight-note “Meeting on the Road”:

Все цветет по дороге. Весна
Настоящим сменяется летом.
Протянула мне лапу соснова.
С красноватым чешуйчатым цветом.
Цвет сосновый, смолою дыша,
Был не слишком приманчив для взгляда.
Но сказал я сосне: - Хороша!
И была она, кажется, рада.

Translation:
Everything blooms along the road. Spring
This is replaced in the summer.
Pine held out my paw
With a reddish scaly color.
The color is pine, breathing tar,
He was not too eye-catching.
But I said to the pine: - Good!
And she seemed glad.

RESULT AND DISCUSSION
Marshak’s pride lies in both this rare accuracy of definition (“reddish scaly color”), and in the modest antiquity of the word (“tempting”), and in the absolute naturalness of the intonation movement (“And she seemed glad”). Of course, Blok, Mayakovskiy, Khlebnikov, Mandelstam, Pasternak, Tsvetaeva, Bagritsky, Tikhonov, Zabolotsky, Yesenin powerfully updated the poem and poetic speech with the help of never-used reserves of the Russian language, they created new forms of verbal art. The meaning of Marshak in something different. Continuing the work of I. Bunin, he restored the honor of classical poetry disgraced by the epigones of the second half of the 19th century. Marshak is a neoclassical, but not an epigone of the classics, he is a fighter against epigonism, one of
his most powerful opponents – a companion-in-arms Anna Akhmatova and subsequent Zabolotsky. The originality of Marshak in his creative commitment to high examples of classical tradition.

From this point of view, the role of Marshak, the translator of Shakespeare’s sonnets, should be considered. Disgraced by the impotence of the epigones, the slandered, shredded lyrics of the great English poet, he informed in Russian living life and poetic nobility.

From the point of view of historical reliability, S. Ya. Marshak can be claimed: he pushes the “various conventions” contained in the original to the distant background, and sometimes even completely erases them from his text. Well, such a rebuke is fair. We will not forget, however, that the poet Marshak did not create Shakespeare in Russian, but his own Shakespeare, which meets the tastes and artistic needs of people of the 20th century. Marshak entered into a dispute with his predecessors, the epigones of the romantics, and this dispute was no less categorical than the dispute of Shakespeare himself with poets like Lily.

Shakespeare’s sonnets in Marshak’s translation had a happy fate: a reader of the 40-60s of our century accepted them as a work of contemporary art, composers write music on them, thousands of copies of them instantly disperse in public and personal libraries.

Another criticism can be presented to S. Marshak from the point of view of aesthetic fidelity: he enlightens Shakespeare’s poems, brings clarity and distinctness to the contours in a context where the English poet has intentional darkness, ambiguity, mysterious obscurity.

Marshak as an artist, much coincides with Shakespeare, but much diverges. Where Shakespeare is mysterious, Marshak aesthetically does not accept it, he transforms the text in favor of other features of the Shakespearean art system that are close to him. What is close to him?

CONCLUSION

Marshak as an artist, much coincides with Shakespeare, but much diverges. Where Shakespeare is mysterious, Marshak aesthetically does not accept it, he transforms the text in favor of other features of the Shakespearean art system that are close to him. What is close to him? First of all, the certainty of poetic thought, which takes on the aphoristic form of the final couplet, the logical movement of the poetic plot, the distinctive contours of the visual-material image, the deep meaningfulness and richness of sound recording.

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NAVIGATION SYSTEMS FOR AGRICULTURAL MACHINES

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ABSTRACT
The article describes the benefits of installing a navigation system for agricultural machines. Using a navigation system, a satellite-based system for managing agricultural activities is presented. The GLONASS navigator has many uses on land, in water and in the air. Basically, a satellite navigator allows you to record or set location points on the ground and helps to move from these points to them. GLONASS navigator can be used everywhere except in places where there is no signal reception, i.e. Indoors, in caves, parking lots and other places located underground, as well as under water.

KEY WORDS: GLONASS / GPS, GLONASS navigator, GLONASS,

INTRODUCTION
Navigation systems, GPS microchip, Navigation systems for agricultural machinery. In air and on water, GLONASS is mainly used for navigation, while on land, the application is more diverse. For various purposes, GLONASS navigators are used by scientists. Surveyors are doing most of their work using the GLONASS navigator, which significantly reduces the cost of reconnaissance work, and also provides tremendous accuracy. Mostly reconnaissance equipment provides accuracy of up to one meter. More expensive systems can provide accuracy within a centimeter! In the field of recreation, the use of the GLONASS navigator is as diverse as the types of recreation. GLONASS navigator is becoming more popular among tourists, hunters, climbers, skiers, etc. If you are fond of a sport or any activity where you need to track your location, get directions to a specific place or know which direction and how fast you are moving, you will appreciate all the advantages of GLONASS navigation [1].

GLONASS / GPS navigation is quickly becoming commonplace in cars. Some built-in systems provide support in emergency situations on the road - by pressing a button, the current location of the car is transmitted to the dispatch center.

More advanced systems can display the location of the car on an electronic map, allowing drivers to control the route and look for the desired addresses, restaurants, hotels and other objects. Some GLONASS / GPS navigators can even automatically create a route and alternately give directions to the specified destination.

Perhaps one of the most important areas that has received completely new opportunities thanks to the GLONASS system is transport. In particular, over time, radio navigation will reduce the “airplane” routes, reduce the intervals between flights. You can use the global navigation system wherever a satellite signal is received. For example, airborne GLONASS / GPS receivers are widely used in aviation for piloting aircraft. Prototypes of a system are already being tested that allow aircraft to land in unmanned mode. However, this requires additional ground stations, allowing to determine the coordinates of the liner in space.

Especially the control of vehicles with the help of satellite navigation in various regions is in demand in those enterprises in which the activity is associated with the supervision of a large traffic flow. The monitoring system makes it possible to qualitatively monitor the movement of any vehicles to the longest distances and helps to effectively coordinate the various flows of vehicles. GLONASS / GPS receivers are built into cars, cell phones and even watches. All ships are equipped with GPS receivers. Chips have also been created that combine a miniature GLONASS / GPS receiver and a GSM module - it is proposed to equip dog collars with...
devices based on it so that the owner can easily find a lost dog [2]. For example, the American company AVID Identification Systems has developed a GPS identification microchip (the size of a grain of rice) that implants a dog at the withers. Each microchip is assigned a unique number. With the help of such a microchip, you can quickly find a lost dog. In addition, the GLONASS / GPS system is a reliable guide to fishermen, tourists, hunters, extreme travelers to all countries.

Quite interesting is the possibility of using GLONASS by many scientists and researchers as a source of accurate time, because determining the transit time of a radio signal lies at the heart of the very idea of GLONASS. To this end, the internal clock of the receiver is constantly synchronized with the atomic clock mounted on the satellites. This allows for accurate time measurements from micro to nanoseconds. Therefore, when conducting scientific experiments, it becomes possible to have absolutely accurate time stamps everywhere. Satellite navigation is already used in agriculture, where it is used for automatic processing of land by combines, now it can significantly reduce production costs, reduce the cost of production. The range of applications of satellite navigation technologies is constantly expanding, and now it’s even hard to imagine what other areas of application of space navigation systems will appear. Figure 1.

Figure 1. The use of GLONASS for civilian purposes.

Currently, in the agricultural sector, navigation systems are widely used for agricultural machinery and mobile energy facilities (tractors). The main task of such systems is to ensure that the tractor with the implement passes through the field so that each subsequent lane lies exactly along the edge of the previous lane without gaps and overlaps. Navigation systems are an integral part of control and monitoring systems, precision farming systems, automated driving systems for agricultural machinery and parallel driving. In reality, with traditional methods of processing fields, without the use of navigation systems, there are overlaps and omissions, as a result of which the processed field looks as follows. Figure 2.
1) Setting visible landmarks (landmarks) during plowing, on which the machine operator will be guided during operation;
2) The use of flow or foam markers;
3) Use of satellite navigation systems.

Even an experienced and conscientious machine operator when working with wide-grip machines does not withstand the exact distance of butt passages without resorting to the help of markers or signal assistants. The problem of accurate driving of tractor units is compounded with an increase in the working width of modern agricultural machines [4]. The following is an example of a satellite image of a field processed using satellite navigation systems. Figure 3

Figure 2. Gaps and overlaps when processing the field in the traditional way.

CONCLUSIONS
The advantages of satellite navigation to ensure the required trajectory of the tractor are as follows:

- No preliminary marking of the field is required;
- No additional consumables for marking rows;
- The maximum width of the unit is used, overlapping of adjacent rows is minimized;
- Excludes gaps between adjacent rows;
- The load factor of equipment increases;
- Provides the ability to work in conditions of poor visibility;
- Increases comfort, reduces fatigue of the driver.

Below are some methods for processing fields using satellite navigation systems. Figure 4.5

Figure 3. Space images of a field processed using satellite navigation systems.
Figure 4. Basic mode (on the left) - corners parallel to the basic straight line AB, Adaptive Curve mode (on the right) - each subsequent corral repeats the previous one.

Figure 5. “Identical curve” (left) - all subsequent corners repeat the initial curve AB, preliminary processing of the reversal zones along the contour (right), followed by processing of the field with corners parallel to the base line.

REFERENCES

THE IMPORTANCE OF THE NASAFIYS’ HERITAGE IN THE EDUCATION PROCESS

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ABSTRACT
Today’s significance of the heritage created by the Nasafiys, to study the human being complexly, the importance of the matter of perfect person in the process of instruction – education, research the Nasafiys’ heritage, the effect of our ancestors’ heritage on the morality of our youth.

KEY WORDS: perfect man, Sufism, Aziziddin Nasafiy, Abu Khars an-Nasafiy, to realize selfness, instruction – education.

INTRODUCTION
In every time and in every society scholars and scientists, wise men and thinkers had invaluable place. The countries and nations were reasonably proud of their dear and great children of such kind. They felt satisfaction and pleasure of having such kind of children. We can say coming from this real truth that in our blessed by God country – Uzbekistan many great scholars and thinkers who were world – wide known with their scientific- educational, instructional, philosophical heritage grew up and activated effectively. Creators from Nasaf were not aside from the time traditions either. They were very skilled in creating works in the Persian and Arabian languages. It is noted in the resources in the oasis of Kashkadarya and in the city of Nasaf about 300 outstanding scholars, architects, narrators, interpreters, scientists of history and fiqh. The chronics by Arabian, Chinese and Greek travelers enlighten a little the history of the oasis. In the works by ibn Khavkal, Istakhriy, Yoqut, Mukaddasiy, Samoniy there noted names of about 180 poets and scholars from Nasaf who lived in the X–XIII centuries. In short, in this ancient city a lot of smart people of their sphere grew up. [10]

The role of invaluable heritage created by our ancestors and our religion of Islam is great in educating our growing up younger generation as perfect men. In the main subject of the works by one of the representative of the people of Sufism Aziziddin Nasafiy stands the problem of perfect man, the stages of reaching perfectness. Revealing the importance of the scholar’s opinions in the theory of teaching and educating, analyzing his works pedagogically serves in the great job of educating our youth with history. [9]

MATERIALS AND METHODS
In the IXth century schools of hadis and fiqh sciences came into existence. The names of tens of authors as Ahmad ibn Muhammad al-Tadyoni, hammad ibn Shokir an-Nasafiy, Abul Muyin an-Nasafiy who lived in the Xth century are known. That’s why the name of “Nasafiy” was quite famous not only in Movarounnahr but also all over the East in the X–XIII centuries. During this period the science of aqid that was the base of fiqh, hadis, interpretation and the Islamic religion. In the XVth century Nasafiy scholars began creating works about the leader representatives of the Islamic religion and other social spheres in the Turkish language. During the reign of Amir Temur and the temurids science, culture and art highly developed in Nasaf. In the work “Kitab al-Ansob” by Abu Sa’id Abul Karim as – Samoniy there noted names of about 180 poets and scholars from Nasaf who lived in the VIII – XIIth centuries. In short, in this ancient city a lot of smart people of their sphere grew up. [10]

Scientists and scholars growing up in Nasaf served much to populate religious and secular knowledge, especially khanafiy sect and moturidia instruction in our lands, and left a large scientific heritage. As out first President I. A. Karimov emphasized, “Everybody knows the names of more than tens of scholars who came from the city of Nasaf and earned fame with the pen-name “Nasafiy”. A lot of saints, scientists and scholars, who enriched the world of Islam with their invaluable scientific heritage and increased our country’s fame, are proud of not only the people of Kashkadaria but also all the Uzbeks.”
There is no any created perfect work about nasafian scholars, their life, activity and the process of their education. [2]

Even in the IX – Xth centuries in Nasaf samples of written works began coming into existence. Abu al-Muti an-Nasafiy who lived about in the end of IXth and the beginning of the Xth creates artistic work in the sense of moral – advice. The poet from Nasaf Shahobiddin Nasafiy (Shahobiyy) who lived in the Xth century takes place in the list of outstanding poets of the Saljuki’s reign. [5]

The information given in the work “Matla’ annujum va majma’ al-ulum” by Najmiddin Adu Khifs bin Muhammad Ahmad an-Nasafiy (XI-XII) has taken place in the collection which was taught regularly in Moslem theological schools in Central Asia in the XV-XIX centuries and made a great importance in studying the education system of those schools of the Middle Ages. [7]

The most valuable point of the work created by an-Nasafiy is that, gives wider information about the teaching methods used at his time, develops them during the period of his teaching activity and uses in his practice. The pointed methods in the work by an-Nasafiy consists of the followings: the method of orthography, the method of recitation (mention), the knowledge of debate, the knowledge of talks (negotiations) or majlis at-takriz, tadris, the knowledge of interpretation. Mudarris during his lessons uses orthography, i.e. the method of having the text to be written. To use this method he mainly refers to texts belonging to the hadis sciences and literature. And he uses the knowledge of interpretation, generally, to interpret vague expressions in the Holy Koran, i.e. to recite them. An-Nasafiy organized meetings in the mosques of the cities and guzars using the methods of lecture and talks.

Aziziddin ibn Muhammad an – Nasafiy – a poet, a great representative of Sufism philosophy. He is one of the kubravian poets who interconnected the doctrine of Sheikh Najmiddin kubro and the tarikat (religious order or way) of Muyiddin ibn Arabiy. At first he studied in madrasas (Moslem theological schools) in Nasaf, then in Bukhara. Mainly, he studied philosophy and Divine Wisdom, had a skill and knowledge in medicine. The scholar created works in the Persian language. The work “Perfect man” is also considered the collection of Aziziddin Nasafiy’s articles. Besides, his books “Zubdat – ul haqoyiq” (Haqiatlar qaymog’i – The essence of truths), “Usul va fi’ru” (Roots and branches), “Mabda va ma’od” (The original space and to go back to it), “Miftiq ul-asror” (The key to secrets), “Nafsi insoniy” (Human passion), “Vahdali vujud” and others were printed in overseas countries. The doctrine of world and human unity consists of the essence of Aziziddin Nasafiy’s works. [4]

Aziziddin Nasafiy writes giving characteristic to perfect man: “Do know, a man who is perfect in religion and morality and reality is called Perfect and if you don’t understand this expression, let me tell in other words: do know Perfect Man is such a kind of person, he has developed the following four in his self: a good utterance, a good deed or character, a good morality and a good education.”

Including this, studying separately the pedagogical heritage of Aziziddin Nasafiy contributes and opens a new path in the human complex research about interrelation of the history of pedagogy and Sufism doctrine.

“Oh, eremite, there are many people who are not decorated with moral merits, and who are unconscious of their selfishness, and they are not perfect yet. There are the ones who are decorated with beautiful merits, who are unconscious of their selfishness. And they are not perfect either. However, gaining human perfectness happens through having had perfect morality and realizing selfishness.”

The scholar emphasizes by this opinion of his that not only moral merits fix the perfectness of a man, he can reach the perfectness only when he realizes his selfishness.

“Oh, eremite, all the features of a tree is in its seeds, and until these features are seen, all the occasions are taken care and looked after by the gardener. An as the same, pleasure, a good character, knowledge, to realize mysteries and ray occurrence exist in the fate of a man.”

All the good merits and deeds, knowledge and talent are hidden in human. And they emerge in the surface in the process of instruction and education.

**EXPERIMENTAL WORKS**

The study of Nasafiy’s heritage has a great importance in the process of instruction and education, in the development of Pedagogy. We led an experiment with the students of the Pedagogy faculty of Karshi state university to study how well our youth know the works by our scholars, their interest in the literary heritage created by them, and to study how much the works are used in the education process. In the experiment the students were given questionnaire with five questions. (Table 1)

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<th>№</th>
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<td>1</td>
<td>What do you know about the development of instruction-education in ancient Nasaf?</td>
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<td>2</td>
<td>What thinkers of ancient Nasaf do you know?</td>
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<td>3</td>
<td>Have you read the works by ancient nasafiy’s?</td>
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<td>4</td>
<td>What do you use to enroot our national values in the education-instruction process?</td>
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<td>5</td>
<td>What do you think about “educate through history” in the education process?</td>
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Table 1. Questions of questionnaire
Our goal of making up such kind of questions was to find out the significance of Nasafiys scholars' heritage in Pedagogy, to study how much pedagogical views in the works created by them are important for the youth. Totally 170 students participated as respondents. 83 of them separated to the experiment group and 87 of them to the control group. In the first step in the answers given by the respondents, 10, i.e. 12% from the 83 students from the experiment group, 11 (12.5%) students from the control group pointed that they had knowledge about the education-instruction process in the ancient Nasaf. 22 (26.5%) students from the experiment group and 25 (28%) students from the control group showed that they knew about the Nasafiys scholars. 9 (105%) students from the experiment group, 8 (9%) students from the control group pointed that they had read the works by the Nasafiys scholars. The 4-5 questionnaires were mainly directed for students to enlighten their worldview, and they expressed their opinions about in what of the education process our national value is seen and what they think about educating with history.

To the question “What do you use to enroot our national values in the education-instruction process?” many respondents have said that they use folklore samples, national games, traditions, customs and some of them have expressed their views about using ancestors’ heritage, our rich spiritual heritage in the education process, implementation of various methods expressing our national values, organizing visits to historical cultural monuments and museums and this way to educate children.

To the question “What do you think about “educate through history” in the education process?” the students expressed in their answers their opinions about delivering the ancestors’ heritage to younger generation, the idea of no future without history, realizing selfness begins from knowing history, educating youth through comparing the past and the future, implementation of well known methods from the past. 12 students answered that they had had difficulty to answer the 4th question and 4 students didn’t respond the 5th question.

After the first step had finished the students participating in the experiment were given information about education-instruction process in Nasaf, works, manuals and recommendations containing the information about the nasafians scholars and their works, and were asked about their interests in the Nasaf's heritage.

A month later they were given the questionnaire of the second step. During this period the students of the group were given works, manuals and recommendations containing the information about the nasafians scholars and information about the above-mentioned questions.

Making a difference from the first step, in the second step 62 (75%) students from the 83 of the experiment group, 27 (31%) from 87 students of the control group, to the 2nd question 71 (85%) students from the experiment group, 29 (33%) students from control group, to the 3rd question 33 (40%) students from the experiment group, 12 (14%) students from the control group, to the 4th question 80 (96%) students from the experiment group, 81 (93%) students from the control group, to the 5th question 81 (98%) students from the experiment group, 84 (96%) students from the control group gave full answers about the education process in ancient Nasaf. Comparing the results of the experiment we can see that the knowledge of the participants about the education – instruction process in ancient Nasaf is higher to 63% in the second step than in the first one, 58.5% higher on the knowledge about the nasafian scholars, 29.5% higher on the data about the students’ reading the works by the scholars of Nasaf.

CONCLUSION

We can see from the results of the experiment our students have very little knowledge about the education-instruction process in ancient Nasaf, if they get knowledge on this subject they will form broad circle of understanding, they are highly interested in the theme.

If the information on the Nasafiys heritage is enrooted in the subject of History of Pedagogy, the role of the Nasafiys creative activity in the education process of ancient Nasaf, its contribution to the development of education would be delivered to the students. And it would serve to increase the knowledge of the students about valuable significance of the Nasafiys’ heritage in the historical steps of the education development and about the implementation of them as textbooks in the education process. It remains as a current demand to study the Nasafiys’ heritage, to deliver it today’s students as an understandable form, to educate the youth with the history. Especially, while the visit of our President Sh. M. Mirziyaev to Kashkadaria he said: “We’ll organize an international conference about Nasafiy scholars. The Nasafiys served to keep our religion pure.” It is the most important duty of not only the people of Kashkadaria or Uzbekistan but also all the people of Islam to study the heritage of the Nasafiys.

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“STRATEGY OF ACTION” - THE METHODOLOGICAL BASIS FOR THE CONSTRUCTION OF CIVIL SOCIETY IN UZBEKISTAN

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ABSTRACT
In this article investigated that the strategy of action on the five priority directions of development of the Republic of Uzbekistan in 2017-2021 is an important program for raising the development of the state and society to new level in the conditions of building a civil society in Uzbekistan, liberalization of all spheres of life, modernization of our country.

KEYWORDS: state administration, democratic governance, democratic values, strategy of action, public control, Constitution, liberalization, national independence, modernization, non-profit organizations, professional Parliament, civil society.

INTRODUCTION
The acquisition of the independence of the Republic of Uzbekistan has created an opportunity for our country to base its reforms on the world experience of the restoration of a new society and state. The political and legal guarantees of civil society and the construction of a legal state in our country have become evident in the new Constitution and other laws in a short period of time. As a result, the legal basis for the formation of civil society was formed in Uzbekistan.

In general, in the first years of national independence in Uzbekistan, in order to build a civil society, deep institutional changes were made in all spheres: the old single-party state was abolished, national state was formed on the basis of democratic principles; a multiparty system of multipartyism was formed in society; system of non-profit organizations free of the party; national values and national spirituality all legal grounds were created for the transformation of the country into the main worldview of the people; the experience of adopting all laws on the basis of democratic principles was formed. As a result, political, economic, social and spiritual conditions were created for the formation of civil society in our country [1].

Attention was taken into consideration to the implementation of reforms on the restoration of civil society in Uzbekistan on the basis of democratic values in the experience of developed democratic countries and international communities. Along with the world experience, the main importance was attached to the harmonization of national values, national mint and national traditions of our people.

Strengthening the foundations of civil society in our country requires the implementation of radical reforms in the management of the state and society. As noted by the president of the Republic of Uzbekistan Sh. Mirziyoyev “the restoration of civil society, the expansion of the freedom and initiatives of our compatriots, their participation in the social life of the country will also become an important direction of the development of the political system of Uzbekistan. Special attention should be paid to the role of Chambers of the Oliy Majlis in the system of state power bodies, the solution of important tasks on internal and foreign policy of the state and further the rights and powers of the parliament in the control of the activities of executive authorities” [2].

Important attention was paid to the fact that civil society is also the main defender of human rights and land, through the gradual implementation of the civil society building reforms in our country and the harmonious development of the experience based on democratic principles implemented in developed countries. The following views of the first president of the Republic of Uzbekistan Karimov on civil society are also considered important: “Civil society is a social space for us. In this space, the law is a priority, it does not make a person self-sufficient, on the contrary, it helps. It promotes the full realization of the interests of the individual, his rights and freedoms. At this time, discrimination of other
people's rights and freedoms is not allowed. That is, freedom and obedience to the law are valid at the same time, complementing each other and dictating each other. In other words, the laws of the state should not discriminate against the rights of man and citizen. Therefore, all people in the fold are obliged to comply with the laws unconditionally” [3].

As a result of the gradual implementation of the reforms on the construction of civil society in Uzbekistan, two-chamber professional Parliament was formed, which operates on the basis of real democratic printing and national interests, gradually, the parliament was given new powers, the legal culture of our people grew, the role of political parties in the life of society increased and

The election of Shavkat Mirziyoyev as the president of the Republic of Uzbekistan in the last quarter of 2016 in our country was shown as an important historical reality. Within a short period of time a number of legal bases were adopted on modernization of state administration, further deepening of reforms of civil society and legal state building in the country. They began to be introduced intensively into socio-political and economic life.

MATERIALS AND METHODS

According to the current period “a deep analysis of the path of development of our country has passed today, taking into account in all respects the fact that the conjuncture is changing in the world market and competition is growing, on this basis, a completely new strategic approach and principle for the development of our state more stable and accelerated pace taking, the adoption of the decree of the president of the Republic of Uzbekistan “on the strategy of action for the further development of the Republic of Uzbekistan for 2017-2021” with the aim of implementing the most important priority directions for the modernization of our country initiated a new stage of development of civil society in the country. The strategy of action on five priority areas of development of the Republic of Uzbekistan was approved in 2017-2021, which was developed as a result of a comprehensive study of the current issues of thinking of the population and entrepreneurs, analysis of the current legislation, the practice of law enforcement and advanced foreign experience, as well as a broad public discussion:

- deepening the democratic reforms aimed at improving the construction of the state and society and further strengthening the role of parliament and political parties in modernization of the country, reforming the system of state administration, development of the organizational and legal basis of the public service, improvement of the system of “electronic government” increasing the quality and efficiency of public services, practical implementation;
- strengthening the guarantees of genuine independence of judicial power and reliable protection of rights and freedoms of citizens, increasing the effectiveness of administrative, criminal, civil and economic legislation, the system of combating crime and prevention of offenses, full implementation of the principle of dispute in the judicial process, radical improvement of the quality of legal assistance and legal services aimed at ensuring the rule;
- strengthening macroeconomic stability and maintaining high economic growth rates, increasing the competitiveness of the national economy, modernization and rapid development of agriculture, continuation of institutional and structural reforms to reduce state participation in the economy, protection of the right to private property and further strengthening its priority position, promotion of the development of small business and private entrepreneurship, development of the regions and active involvement of foreign investments in economic sectors and regions of the country by improving the investment climate, socio-economic development of districts and cities in accordance with the legislation;
- development of social sphere consistent increase of employment and real income of the population, improvement of social protection and health care system, increase of socio-political activity of women and girls, restoration of affordable housing, development and modernization of road transport, engineering and communication and social infrastructure, development of educational, cultural, science, literature, art and sports spheres, improvement of state policy on youth;
- strengthening the independence and sovereignty of our state aimed in ensuring security, national harmony and religious tolerance, conducting foreign policy in a deeply thought-out, mutually beneficial and practical spirit, forming an atmosphere of security, stability and harmony on the sides of Uzbekistan, strengthening the international prestige of our country [4].

The strategy of actions in the formation of solid foundations of civil society in Uzbekistan serves as an important methodological source. In the direction of improving the system of state and social construction, which is considered the first line of the strategy of action, the theoretical and conceptual basis for the construction of civil society was formed. In this direction, attention was paid to deepening democratic reforms, further strengthening the role of the Oliy Majlis and political parties in the modernization of the country, thereby deepening the
principles of free and people’s power management in society during the achievement of the rule of law.

Clear ideas were put forward on measures to liberalize the state administration system, reduce various bureaucratic obstacles, ensure the participation of the general public in public administration. The main goal is to build an open society, to protect the interests of the state and the people, that the state is the only and suddenly the source of the people, and at the same time to fully implement the printips and rules, that the people see their goals and aspirations and dreams as the embodiment of the state.

RESULT AND DISCUSSION

In the strategy of action, special attention was paid to the issue of liberalization of state and community management as the basis for the construction of civil society. At the present stage of liberalization of the life of the state and society, a number of directions and tasks of modernizing the management of the state and society are defined in the strategy of action.

Firstly, to introduce printouts that define the criteria of democratic governance into life with constancy and intensity. These are such principles as the priority of human rights and interests in management, the distribution of powers, the rule of law, the broad involvement of the public and civil society in public administration, the transparency and openness of the activities of state administration bodies.

Secondly, it is envisaged to improve the legislative and legal framework of the activities of the state administration on the basis of modern requirements.

Thirdly, the structural structure of the bodies involved in the management in the system of executive power and the rationalization of functions is an important function of administrative reform.

Fourthly, it is necessary to ensure the openness of the activities of state administration bodies, to create effective mechanisms that ensure their cooperation with the institutes of civil society, to activate public control over their activities.

Fifthly, consistent improvement of the legal framework of the activities of the relevant competent bodies is of particular importance in modernizing public administration and increasing the effectiveness of administrative reforms.

In the strategy of action, President Sh.M.Mirziyoyev put forward an opportunity to implement the print-out “The people are not to government agencies, government agencies should serve our people” which he put forward, in the social political life. The activities of the Legislative chamber and Senate of the Oliy Majlis of the Republic of Uzbekistan studying the state of affairs and communicating with the people have been radically improved.

In the strategy of action, the development of effective mechanisms of public control through the implementation of the activities of non-profit organizations in the formation of civil society is defined as one of the priority tasks.

Due to this priority, a specific mechanism for effective public control over the activities of state bodies, an objective assessment of the activities of state bodies and officials has been developed. The law “on public control” was adopted in order to ensure the participation of citizens in the state and state administration and to ensure the openness of state administration in our country.

In accordance with the law “on public control” the subjects of public control were guaranteed the right to apply to state bodies with appeals and requests, to participate in open meetings of public bodies, to participate in public hearing, public monitoring and expertise, to study public opinion, and to listen to the information and qualities of officials of state bodies by self-government bodies [5].

In general, the fact that the implementation of public control within the framework of the strategy of action has been developed has ensured that citizens, who are considered the negatives of civil society in our country, participate in the management of the state and society.

The above analysis shows that within the framework of the strategy of action in our country, the development of civil society is carried out in two directions. First, the state is conducting relations with public organizations on a new basis, while maintaining the status of its main management entity. Now the state transfers its specific functions, a number of powers, rights and resources to public organizations. In this way, the state is pushing the possibilities of self-management of public organizations. On the second hand, society, through the development of public organizations, is faring their enormous potential in the direction of managing the country.

In 2017-2021 the state program on the implementation of the strategy of action of the Republic of Uzbekistan in five priority areas in the “Year of active investment and social development” also focuses on the development of the foundations of civil society.

Proceeding from this state program, in order to deepen the democratic reforms in our country and to further strengthen the role of the chambers of the Oliy Majlis, political parties in the modernization of the country, the chambers of the Oliy Majlis carry out activities in the direction of norm creativity and parliamentary control implementation of the
procedure of approval of members of the Cabinet of Ministers by the councils of relevant people’s deputies of the heads of state bodies of the Oliy Majlis, region, district and city, improvement of information and analytical activities in the implementation of parliamentary control over the budgets of the state budget and state target funds of the Oliy Majlis, systematization, a number of priority tasks are set, such as implementation of projects of the “Electronic parliament” system aimed at ensuring the openness of the activities of representative bodies of power, as well as improving the provision of electoral rights of citizens [6].

CONCLUSION

In conclusion, it should be noted that the strategy of action on five priority directions of development of the Republic of Uzbekistan in 2017-2021 is an important program in the construction of civil society in Uzbekistan, in the decision-making of democratic values in the management of state and society. The implementation of the activities defined in the strategy of action will allow the strengthening of the foundations of civil society in our country, the provision of public control in the management of the state and society.

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VOLLEYBALL TECHNIQUES

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ABSTRACT

When training volleyball players, great attention paid to developing their speed of reaction, orientation, strength and speed of muscle contraction involved in performing techniques, and jumping ability. Particularly useful exercises with stuffed balls weighing 1.5–2 kg: throwing them from the chest with his hands and catching; throwing from behind the head with two hands from a place, in a jump, in a jump with a turn, on range, through the grid; one-handed throws with a strong final brush movement, etc. In this article the abovementioned factors are discussed.

KEYWORDS: ball, court, opponent team, issues, indoor volleyball, outdoor volleyball.

INTRODUCTION

Variations of the game volleyball have been in circulation since around 1895. The game has evolved since then and it was in 1964 where the sport entered its first Olympic games. The sport now has a global following with nations from around the world professionally competing. The pinnacle of the sport comes in the Olympic Games were the best players are often on show.

The object of volleyball is to hit the volleyball over the net (by only using your hands) running through the centre of the court whilst trying to get it to bounce in your opponent’s half. The opposing team have to try and prevent the ball from bouncing before returning the ball. Games are played out in best of 3 or 5 sets and the team with most sets at the end of the game wins.

MATERIALS AND METHODS

The basic rule is to prevent the received ball from hitting the ground so that it can be thrown back to the other team with up to 3 touches from the team. A foul happens if one person from the team touches the ball more than twice (double-hit) while it’s on their side of the net. Also, a team scores a point by throwing the call across the net to the other team’s side such that it hits the ground directly or the player fails to send it back over the net.

The basic volleyball rules includes the followings:

- Player may not hit the ball twice in succession. (A block is not considered a hit.)
- Ball may be played off the net during a volley and on a serve.
- A ball hitting a boundary line is in.
- A ball is out if it hits an antennae, the floor completely outside the court, any of the net or cables outside the antennae, the referee stand or pole, the ceiling above a non-playable area.
- It is legal to contact the ball with any part of a player’s body.
- It is illegal to catch, hold or throw the ball.
- A player cannot block or attack a serve from on or inside the 10-foot line.
- After the serve, front-line players may switch positions at the net.
- Matches are made up of sets; the number depends on level of play. 3-set matches are 2 sets to 25 points and a third set to 15. Each set must be won by two points. The winner is the first team to win 2 sets. 5-set matches are 4 sets to 25 points and fifth set to 15. The team must win by 2 unless tournament rules dictate otherwise. The winner is the first team to win three sets.
BASIC VOLLEYBALL RULE VIOLATIONS. RULE VIOLATIONS THAT RESULT IN A POINT FOR THE OPPONENT

- When serving, the player steps on or across the service line as while making contact with the ball.
- Failure to serve the ball over the net successfully.
- Ball-handling errors. Contacting the ball illegally (double touching, lifting, carrying, throwing, etc.)
- Touching the net with any part of the body while the ball is in play.
- When blocking a ball coming from the opponent’s court, it’s illegal to contact the ball when reaching over the net if both your opponent has not used 3 contacts AND they have a player there to make a play on the ball.
- When attacking a ball coming from the opponent’s court, contacting the ball when reaching over the net is a violation if the ball has not yet broken the vertical plane of the net.
- Crossing the court centerline with any part of your body is a violation. Exception: if it is the hand or foot. In this case, the entire hand or entire foot must cross for it to be a violation.
- Serving out of rotation/order.
- Back-row player blocking (deflecting a ball coming from the opponent) when, at the moment of contact, the back-row player is near the net and has part of his/her body above the top of the net. This is an illegal block.
- Back-row player attacking a ball inside the front zone (the area inside the 3M/10-foot line) when, at the moment of contact, the ball is completely above the net. This is an illegal attack.

The volleyball lesson includes running on 20, 30 60 m; running with a change of direction; various relay races; outdoor games with fast movements and quick response.

RESULT AND DISCUSSION

Two-way volleyball is only useful for training when students mastered the skills of supplying, receiving and passing the ball. It is from this that classes begin. Basic elements of volleyball techniques involve followings. The volleyball technique consists of racks, movements, gears, strikes, blocking and innings. The starting position that a player takes in the rack is basis for performing all game actions with the ball. A feature of the volleyball technique is that there is a certain relationship between game techniques. To pass the ball, you must enter it into the game with a serve to perform an attack hit, accurate transmission is needed etc. Racks and movements. The basic elements of racks and movements are stable position on bent legs and conservation balance in the rack. This makes it possible to move around, step, run, jump or lunge in any direction. Training exercises Take the position of the rack with the left foot forward. Lunge left, right, step forward, backward. Hands in front of the chest are bent at the elbows and are ready to perform actions with the ball. In the rack, perform running movements in one, the other direction, forward, backward at a distance of 3-5 m. Simulate the ball transfer after stopping. In the rack, perform movement irregularly and lunges. Simulate passing the ball after stopping. Top gear The basic elements of the upper pass of the ball - the position of the hands in front of the face, when the hands form the shape of the ball on eye or forehead level, as well as the sequence of movements at passing the ball. The movement begins with extension of the legs and ends with the accompaniment of the ball with the hands. A prerequisite for top gear is the player’s access to the ball due to timely movement so that the ball is above the player.

Scoring. Scoring in volleyball is pretty simple, but it also has changed over time. Most matches are divided up into sets. A typical match may be a best of 5 sets where the first team to win 5 sets wins the match. In each set, the first team to 25 points wins as long as they are 2 points ahead. A point is scored on every rally, regardless of which team serves.

It used to be that only the volleyball team serving could score a point on a won rally. Also, sets were typically played to 15 points. This was changed in 1999.

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PSYCHOLOGICAL APPROACH TO TEACHING INFORMATION TECHNOLOGIES

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ABSTRACT

The purpose of this paper is to investigate the paradigm role of ICT for education as the case of learners and educator's behavioral and educational psychology's perspectives. I.e., ICT based education is an essential for new emerging information and then after knowledge societies, facilitating large-scale learning needs for social and economic development. The paper focused on ICT’s applications and roles in education and the ICT’s based learning process, competency, efficient use of a resource, developing innovative and novel ideas … that could change and advance the learning environment and teaching practices.

KEYWORDS: ICT, digital technology, psychology, educational systems, educational psychology

INTRODUCTION

Information Communication Technology (ICT) could be termed as educational technology in education industry. Semantically, it is the study and also ethical practice of facilitating, learning and improving performance by creating, using and managing appropriate technological processes and resources. Therefore, ICT for behavioral and educational psychology is simply referred to the use of modern technology, such as computers, digital technology, networked digital devices and associated software and coursework with learning scenarios, worksheets and Manuscript. Thus, it is vitally important to learners and/or educators anytime and anywhere, business and other settings. The technology encompasses both educational and developmental material objects, such as machines and networking hardware, as well as theories such as instructional theory and learning facilities. ICT for education is an integral part of societies’ everyday life, which refers to an array of tools and the principles for their effective application in learning process and facilities. ICT for behavioral and educational psychology is therefore, methodologies and techniques, and skills assessment for learners and educators in their learning provider institutions towards its impacts. ICT as the paradigm of educational and behavioral psychology is a dynamic and multi-factor aspect, including, Internet-based learning and instructional and learning theory, media perception and human social interactions, fields of study that apply human behavior to educational technology. However, there is a disambiguation about what ICT as educational technology should refer. Especially for young scientists and education experts do have a limitation to define its paradigm roles in education industry. There is a big public debate that refers to all valid and reliable applied education science, such as equipment, as well as processes and procedures that are derived from scientific research.

MATERIALS AND METHODS

Ict for the emerging of information society

In the past years, researches on ICT have been investigated how it can influence the education of students, teachers and other communities. Most developing countries such as Uganda, Ethiopia, Kenya and other many African and Asian developing countries have begun to place considerable emphasis on the importance and availability of ICT for education and other sectors dynamically. In this case, China, South Korea and Singapore could be mentioned how ICT made them strong and fast developing countries. Thus, the use of ICT in various fields of society indicates the emergence of the „information society“ . The information society is based on the belief that knowledge is the driving force for technology development and also for economic growth and the knowledge works, which provide or from a relatively
large proportion of the employment. ICT for the countries’ development and education specifically can do in the provision of media to facilitate communication and learning process. It is the solid foundation of the emerging of the information society entails dramatic changes in production and business activities as a generic term of an integral larger social context. Information society is an agglomeration of both digitized information and electronic networks. The transformation of information society can only be understood if we view it in a broader context where bits, networks and knowledge have a social meaning.

As the traditional education facilities, its context and flow are a single approach or one flow from the one step such as teachers who had experience and knowledge to learners. Therefore, ICT breaks this and made dynamic that can be diversified, powerful and accessible to most education seekers. The difference is that for the former (traditional) teachers are the only accelerators or pivoted actors (Fig. 1 a), it is one way from teachers to learners. For the later (modern) approach, the process could be facilitated by both teachers and learners as the matter of ICT’s facilities, which is a two-way flow of educational and information flow (Fig. 1 b). Therefore, ICTs and information society are concerned with the creation, acquisition, sharing, dissemination, delivery, support and recognition of knowledge, which provides an access to and engaging in the continuous learning that becomes necessary for successful participation in the society development of all social groups of population. It is a critical tool for professional training that learners know how to use ICTs, the easier they can find their way to capture the newest methods towards their specific tasks.

![Diagram](image)

**Fig. 1.** Education an information flow from pivoted actors to users or learners.

In Fig. 1 a), education is not supported by ICT and teachers are the key to facilitate the learning process. The distributions and access of education are limited. Whereas in Fig. 1 b), the process is supported by ICT and the process is more dynamic, which lead to attain more accessible and distribution of education. Mean that, ICT creates essential situations that both teachers and learners could be important acts as a consultant (teachers) for learners and the Vis versa on implementation and feedback learners for teachers where information can be obtained and communicates knowledge and experience in the societies. This is a technology-based paradigm in which learners make extensive use of ICT to obtain information and experiences. The learning responsibilities of the
students here are for „searching”, rather than „receiving” as of fig.2.

The impact of ICT on emerging of information society is tremendous, which can be visualized and measured in terms of technological, economic, social and political. ICT as the foundation of information society, it can be evaluated as a dramatic change in production and business activities, culture development, communications in a larger social context.

ICT and Learning Psychological Phenomenon
ICT is the corner stone to learning facilities, which bring an enthusiastic behavioural and psychological phenomenon. It is a tool to optimize learning performance and access, a means of communication to address the educational factors, a solid foundation of information societies. Therefore, ICT for education is a technology that potentially useful in any aspects depends on both human and non-human actors, which provide a scientific framework. The technology is playing a paradigm role in which considering many contributions of human and non-human actors, reacting against the idea that characteristics of humans and social organisations distinguish their actions from the inanimate behaviour of technological objects. It offers a socio-technical approach in which neither social nor technical positions are privileged, denying purely social or technical relations is possible. The technology involved in learning facilities, means of communications, strategic development, and future prediction for the better of education paradigms as showed Fig. 3.

DISCUSSION
Ict in behavioral and educational psychology
ICT for education is a key component for its success, learning competency, creativities, support to create and meet complex demands in a particular context skill development in general. The technology implies the mobilization of knowledge, cognitive and practical skills, and social and behavioral components, including attitudes, emotions, values, and motivations. For example, it rolling as the key competence and interactivity in the school, which learners are capable to use education technology interactively that requires an awareness of new ways for individual’s creativities and life prosperity, in general. As the countries (developing
countries) have made more attention and dynamic strategies on ICT, their social, economic, and technological changes would be made education and training for all more crucial than ever. Because ICT based educational systems are vitally important to different degrees to optimize educational opportunities and roles for students and learners. It provides fundamental knowledge and skills for evolving marketplaces and sophisticated educational and technological environments, and to prepare societies for lifelong learning. To meet these challenges, countries have to focus concurrently on expanding access, improving internal efficiency, promoting the quality of teaching and learning, and improving system management. It is because ICT is an essential tool to gear the educational constructivism plan as the government or specifically school strategy. ICT based lifelong learning perspective is simply the process of creating computer technology and ICT literacy society. It is the knowledge of renewable supply and to be sustained year to year. Hence, it is a phenomenon of the lifelong learning and teaching processes, which involves the different forms of learning during a person’s life. It is the integration of ICT in the learning and teaching process that the activities not to be seen as a “finished product.” It is two way facilitations and acquiring knowledge as teachers must be prepared to learn the basics of ICT. To incorporate new technology and pedagogical methods to improve their teaching. The ICT based learning process is a model of education facilities and memory deriving from cognitive psychology and information-processing theory. Therefore, educational and behavioral psychology is the process of learning events that comprise both internal and external conditions of learning process. By internal is essentially previously acquired concepts and skills and the mental processes and structures used by the learner to develop new concepts and skills based on the recall of prior skills. The external is the learning process taking the form of instruction designed for the acquisition of particular learning outcomes. For example, NeCarty and Schwandt clearly discussed that the behaviorist rooted pedagogy is accused by constructivists of being authoritarian rather than progressive, teacher-centered as opposed to learner-centered, encouraging passive learning instead of active learning and focusing on transmission teaching rather than discovery learning. It showed that how ICT is essential for semantic educational learning processes. In the past decades, philosophers were having their extreme judgments and also conclusion that derived from their own perceptions. For example, the theorist of instructional design lacks an empirical basis since they relied on the studies designed and conducted within behavioral and cognitive psychology experimental settings. In those experiments, learning components were isolated in order to identify how the human brain functions. The assumption was the learning components could be transferred unproblematically to pedagogic contexts of learning components exist concurrently rather than in isolation.

RESULT
Constructivism: it is a focus on how learners construct their own meaning from new information, as they interact with reality and with other learners who bring different perspectives. ICT as the aspects of constructivism is the process or learning environments requires students to use their prior knowledge and experiences to formulate new, related, and/or adaptive concepts in learning. Under this framework the role of the teacher becomes that of a facilitator, providing guidance so that learners can construct their own knowledge. In this approaches, educators must make sure that the prior learning experiences are appropriate and related to the concepts being taught in which they are utilizing a constructivist perspective may emphasize an active learning environment that incorporates learner centered problem-based, inquiry-based, and project-based learning processes. The novelty of the method is ideally involving real-world scenarios, in which students are actively engaged in critical-thinking activities, as it is shown on Fig. 4.
As the paradigm role of ICT, there is a big difference of learning process as the traditional and modern systems. As it is shown on Fig. 4, modern learning system is ICT based constructivism that provides learners would have critical thinking about the situations, make wide for their educational behavior and cognitive and so on. Development on ICT is capital intensive and complex, which need to be systematic and strategic. On the other hand, its outcomes in the school can never be measured clearly by giving exams for students or learners. It should be known that ICTs potentially offer a powerful dimension to transform the way the young generation prepares for further learning. Thus, the main focus as well as the role of ICTs is to act as a catalyst for the learner’s interest to get acquainted with the “unknown” as it is characterized in Table I.

CONCLUSION
ICT is a technological phenomenon of educational and behavioral psychology towards the emerging of information society. It is dynamic, which can be serving as tools of communications and educational instructions’ design. Thus, ICT for development and education, specifically vitally important to facilitate jobs, efficient allocation and use of resources. ICT as the context of educational communication, the phenomenon should be developed, applied, and analyzed by all educators, especially to create the instructional communication quality in every lesson. This paper is discussed about the paradigm role of ICT in education industry more emphasizing on learning process. In-depth analyses focused on the effect of ICT as behavioral, cognitive and constructive nature has been discussed in details. The learning process is stimulus packaged in the form of computer-based instruction (CBI). The analysis and verification of learning interaction phenomenon is taking into account the great power of human action and memory that leads the emergence of information society. Moreover, the comparisons between traditional and modern or ICT based constractive education system has also discussed and presented in the tabulated form.

REFERENCES
CONTRASTIVE ANALYSIS OF UZBEK AND ENGLISH CASES AND THEIR ENCOUNTERED MISTAKES IN THE PROCESS OF USING THEM IN SPEECH

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ABSTRACT
This research work provides with indispensable details correlated with Uzbek and English languages cases. Noted distinctions and interchangeabilities among them are brought into this article. With various examples as well as taken from reliable resources, it is highly proved that by this article some problems, complexities of grammar will be to some extent solved. From this article not only ESL student manage to use but also native speakers of English can utilize in acquiring Uzbek in the future

KEY WORDS: Cases, locative, ablative cases, formation, transitive verbs, suffix of belonging-ship

INTRODUCTION
Initially, realizing why we need to know exactly similar or different characters of Uzbek and English cases can identify research paper in what extend it is significant. It becomes an important aspect to differentiate, find similarities or exceptions of Uzbek and English languages’ cases so as not to face problems in learning English. Moreover, as with the improvement of Uzbek language status, more and more people around the world have a tendency to acquire our native language. For this reason, necessary survey over cases is conducted.

LITERATURE REVIEW
Cases serve to link noun or pronoun with other parts of speech via some suffixes or words.[5],[3] This rule is suitable for both languages except those cases’ varied number, in some extent functions. Looking at precise data main three cases are include in English counted as
- Subjective Case (in ancient time it was Nominative)
- Possessive Case (or Genitive)
- Objective (Accusative or Dative Case)[2]
When it comes to Uzbek case, it will involve six ones.[1]
- Nominative (bosh kelishik)
- Accusative (tushum kelishigi)
- Genitive (qaratqich kelishigi)
- Dative (jo’nalish kelishigi)
- Locative (o’rin-payt kelishigi)
- Ablative (chiqish kelishigi)

According to those information Nominative, Genitive, Accusative cases exist in both languages. Usually case suffixes are attached to the end of the noun, or some words (in English) come before or after noun. But coming to the Nominative case remains unmarked having without suffix. It is located at the beginning of sentence, especially before verb. It answers Who? For animated and What? For in-animated

Max is interested n travelling. She is interested in travelling.

What about Genitive case? Dissimilar facts are given as following:

ANALYSIS AND RESULTS
In English
1. With this case, possession can be shown. More accurately something or somebody is possessed by somebody or something.[2]
2. An apostrophe constitutes Genitive case when it is added to noun. Genitive case is always come with noun together

Those are Max’strees
Those are hertrees. But when we want to express possessive with pronoun, apostrophe ‘S will be omitted.[3]
3. If possession is going to be said without noun, this type of case appears ending part. These cars are Jane’s. These cars are his. We utilize reflexive pronoun in this situation
4. ‘S usually for people whereas the… of for things.
In Uzbek
1. There is exceptional suffix creation in Uzbek which means belonging to.
2. Far from English, Uzbek possession can be structured by both Possessor and possessed. In Uzbek the Possessor is suffixed with –ning and Possessed is suffixed with –im, -ing, -I, -miz, -ingiz, -ngiz. The construction of possessive connection is following: The Possessor “Mahliyo” has a possession “uy” or “ota”. When suffixed in Uzbek it becomes “Mahliyoning uyi” (Mahliyo’s house) or “Mahliyoning otasi” (Mahliyo’s father)
3. Suffix of belonging-ship – niki. It is used to reflect connection with or belonging to. The suffix –niki is attached to the end of the word or personal pronoun.
4. There is no restriction in using –ning in animated and in-animated nouns.[1]

Accusative case

In English
1. Accusative case is created, when one particular noun has function to be the object of verb or preposition.
Jack has a burning desire to watch TV every day.
TV is object of verb as it is after verb - watch
2. It is divided into two types: direct, indirect objects.
A transitive verbs are always related with direct object. It is said that there is also one type of object called “indirect object”. In ancient time, the indirect object was thought to be included in “dative case”. However, today both indirect and direct objects are involved in the accusative or objective case. [2]

In Uzbek
1. Not resembling English. There is no definite and indefinite article in Uzbek language. In Uzbek, when an object has already been known, and accurate that definite object will get suffix – ni. Suffix – ni is not used for the subject and is unlikely to be connected with other case endings. The question forms of object (nouns or pronouns) are kimni? (whom) or nimani? (what). For example:
   - “unga (nimani?):telefonni bering” vs “unga (nima?): telefon bering”.
   - “Give him the telephone” vs “Give him a telephone”.
2. Definite direct objects often amalgamate with verbs like:
   - Bilmqo – to know
   - Olmqo – to take
   - Bermoq – to give
   - Ochmoq – to open
   - Qo‘ymoq – put

Yop – to close
Tushummoq – to understand

Here is examples show those verbs encountered in simple sentences:
Mavsuma, gilamni bering! Mavsuma, give (me) the carpet!
Kamola, qullarniol! – Kamola, take the flowers!
Malika tojik tilini biladi. – Malika knows Tajik language.

Remainder cases: Ablative together with Locative are not present in English cases. Even so, those cases’ purposes are executed accompanied by prepositions comprising “from, in, on, at”.
It is noted that Objective (Accusative or Dative) case is related to verb while Genitive (or Possessive) case comes together with noun or in some parts pronoun (meningo’zim – I myself) in a sentence.[1]

Dative case

In Uzbek

In Uzbek language dative case is studied separating from accusative case where other languages including English and German they are learnt together and called one term. When it comes to UL dative case is created with –ga, -ka, -qa suffixes. In EL those suffixes seem to be translated like preposition “to”. With the help of this case, beneficiary is introduced, direction is demonstrated. It answers “qayerga?”, “kimmikiga?”, “where?” , “to whom?” questions.[1]

U Yaponiya yagylayot qilishga ishiyoqmant. - He is fond of travelling to Japan.
But sometimes it is not necessary to put “to” preposition while translating:
U Aziza ruchkasini bermadi. – She does not give Aziza her pen.

Ablative case

1. This case is utilized to demonstrate root, foundation, origination. The composition of such cases are done with the help of –dan suffix which is translated into English as “from”. Besides that It answers questions like kimdan? – from whom? And qayerdan? – from where? along with nimadan? – from what?
2. Note! In order to be case, suffix –dan should only be united to noun. If it is added to number or modifier of time, this word is bound to be adverb or number.

Institutdan stipendiya oldim. – I took scholarship from institute.
Bugun u do‘konidan kiyim sotib oldi. – She has bought dress from shop today.
Nimadan xafasan? – From what are you sad?
3. It is referred that expressing noun with Ablative case –dan seems much more exact by contrast Objective case. Moreover, Accusative case represents the whole part of thing whereas,
Ablative case portrays piece, slice, chunk, portion of item. [1]

Men qovunni yedim. – I ate (the whole) melon.
Men qovundan yedim. – I ate (a piece of) melon.

Locative case

In Uzbek
1. What can be told about this case? Locative case is constructed putting into service –da suffix to convey position, place, situation and temporal commendation. Above tasks are appropriate to “at, in, on, by” prepositions in English. Suffix –da is put in noun and pronoun. Question relating to this can be “qayerda?”, “where?”

Samples are given to make them penetrable.

Akam maktabda ishlaydilar. – My brother works at school.
Sevinch hoyir kutubxonada. – Sevinch is now at library.
Olmalar stolning ustida. – Apples are on the table.
Umida tog’ning chojqsida rasmga olyapdi. – Umida takes photos on the top of the mountain.
Opang qayerda yashaydi? – Where does your sister live?

2. Post-positions reveal certain position in UL and construct adverbial modifiers of time or adverbial modifiers of place in a sentence. Their functions are conducted in EL with prepositions or some adverbs. It incorporates words associated with location namely on top of, beneath, next, opposite, at the corner and others. Counted words also take suffix –da.

Divanning oldi – front of the sofa (i- in third person)
Divanning oldida – in front of the table

Here – shuyerda, there – u yerda, under- tagida, next to, side – yonida, behind – qarqada, across - qarshida
If we want to make it more accurate, possessive case will be attached with -ning to the word which comes before locative case.[1]

Mehmonxona kasalxomaning yonida joylashgan. - Hotel is situated next to hospital

Apart from connecting two words in the sentences, In Uzbek language, also in English language, cases plays an important role in forming part of speech in the sentence.

Xolamning kitobini o’qidim. – I have read my aunt’s book.

CONCLUSION

To sum up, comparison of any two languages which can be Uzbek and English has grabbed attention of many EFL students. The most notable feature of this event, even foreign students whose mother tongue is English pays great attention to learn Uzbek language. Therefore, during that time different countries learners face some issues as the difference of grammar systems. Cases are one the most interesting as well as necessary theme for both Uzbek and English students. The reason of that a great number of other themes are correlated to this theme such as noun, pronoun, part of speech and so on. From this point of view, it should be concluded that in teaching cases, both teachers and students ought to keep their awareness, attention in case theme. This article can be helpful for them to carry out their aims.

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THE IMAGE OF THE "INNER WORLD" IN THE NOVELS BY VIRGINIA WOOLF

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ABSTRACT
Following work is dedicated to the main direction and course of development of Virginia Woolf’s creative experiments on the novel form, internal experiences, feelings, and the use of a special styles of writing the stream of consciousness and category of time to convey the psychological processes of characters.

KEYWORDS: inner world, image of human psychology, modern novel, moment’s of being, chronology.

INTRODUCTION
Having chosen to depict the deep psychological processes of reaching the moments of being, Virginia Woolf comes to the idea of the need to develop a new form for the modern novel. The subject of the novel according to Woolf lies in the sphere of internal experiences, feelings, and thoughts of each individual person. The real being is perceived only from within, through a certain kind of insight that occurs in the human soul. To depict this process is, according to Woolf, the main task of the novelist.

In the novels "Jacob's Room", "Mrs. Dalloway", "To the Lighthouse", "The Waves" Virginia Woolf widely uses a special method — "stream of consciousness" to convey the psychological processes of her characters. The image of the "inner world", the "psychology" of the characters, of course, was not an innovation at the beginning of the XX century (it is enough to recall the brilliant examples of the psychological novel of the nineteenth century). The real novelty was that the internal, psychological process was understood (and presented) as a "flow", with its inherent non-separateness and-structuring. And this, perhaps, is the most important difference between the stream of consciousness and the internal monologues of the characters in the traditional novel, with their structure and literature, segmentation to the past, present and future. The stream of consciousness is essentially non-literary, it is taken and transcribed before any logical and grammatical design, and represents, from a temporal point of view, a kind of huge, hypertrophied present, which in the blink of an eye turns into the past and the future. And the presence of grammatical categories of time and modality in the stream of consciousness is not a refutation of the "power of the present". Since the expression "pre-language" and "pre-verbal" inevitably uses language tools, the grammatical division of time is carried into the text by a kind of contraband.

RESULT AND DISCUSSION
Turning from "subjective time" to "objective time", it is not difficult to notice that the latter is so strongly marked in the novels of Virginia Woolf that it gives the researcher an excellent opportunity to make detailed chronological tables of the novel's action with an exact indication of exactly what period of time a particular episode occurs. But, of course, just such an indication of the clearly expressed "chronology" of the story is not enough. Signs of time, taken mechanically, by themselves can not serve as an argument in favor of the fact that category of time is really functionally present in these texts. In Woolf's novels, we are faced with the fact that time is the most important and powerful factor that binds the entire fabric of the narrative. “Mrs. Dalloway” clearly shows that, in fact, a person's experience of the "moment of the present" is always saturated with the sediment of the past. Although significant events occur during this time — such as, for example, the suicide of Septimus — yet this one June day basically serves as a surface on which the past is crystallized. Indian researcher Kumar Shiv chooses a different image to express the significance of time in the novels of Virginia Woolf: “...time” is almost a kind of perception, a filter that cleanses all phenomena before they find their true meaning and relationship”.

The transition of Virginia Woolf's novels episodes is based on the principle of a clear time sequence-and due to the fact that any subsequent episode begins at almost the same time point at which the previous one ended, the impression of continuity of the flow of time is created. Exceptions here are quite rare and, as a rule, are specially highlighted by grammatical means. Not always transition from one episode to another can be
The reproduction of characters. At the very beginning of the novel "Mrs. Dalloway", for example, such transitions for linking the narrative into a single whole and transiting the normative focus are, either the Prime Minister's car passing by the characters, or the plane drawing an advertising line on the London sky. Here we come very close to the spatial dimension of the category of time. It is easy to see that for transition episodes, a certain condition is necessary to prevent loss of space—the spatial proximity between the previous and subsequent scene of action. As a rule, the action locations are distant from each other at a distance not exceeding the supposed visual and / or auditory susceptibility of the characters. The movement of normative focus from one character to another is spatially limited by the distance at which both characters can either directly perceive different manifestations of each other, or simultaneously observe/hear/feel the same object-a mediator occupying an intermediate position in space between them. It is this subordination of space in relation to time in the novels of Virginia Woolf "Mrs. Dalloway" and "To the Lighthouse" that leads to the localization of action in small, easily defined borders.

CONCLUSION

In relation to the novels of Virginia Woolf "Mrs. Dalloway", "To the Lighthouse", "The Waves", it is extremely difficult to talk about any "neutralization" of the category of time. Not only is it present in these works in at least two forms (time "objective" and "subjective"), it is also the most powerful factor that binds the entire narrative in these novels, their "compositional core". Space, in turn, is the value of the derivative with respect to time, which entails the inevitable localization of the novel action.

Virginia Woolf's experimental prose is characterized by a different trend. Woolf considered that the main drawback of the method of Edwardian writers is their unconditional attention to the "external", "historical", "social". And in contrast to this, the English writer, along with shifting the focus to the "inner", to the image of human psychology, seeks to bring the text out of the zone of hard contact with a specific historical reality. In her novels, she makes a bold attempt to reduce the category of historical time to the level of a secondary, marginal element, taking instead as a basis the understanding of time as a symbolic and psychological process. It is this kind of time that it makes a structure-forming element of the narrative.

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CHALLENGES OF CHEMISTRY AS A MEANS OF DEVELOPING EDUCATION

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ABSTRACT

This article discusses the essence of problematic nature as the laws of cognition, the definition of its role in learning and the introduction of didactics in future chemistry teachers. The objectives of the problem type of training are considered, not only the assimilation of the results of scientific knowledge, but also the knowledge system, the formation of the cognitive initiative of the student and the development of his creative abilities.

KEYWORDS: vocational training, pedagogical technologies, educational process, problem learning.

INTRODUCTION

Modern society often gets into situations where challenges confront us. Because of these difficulties, we understand that in the world around us there are still many unknown faces. Therefore, people need a deep knowledge of the surrounding world, new processes and properties are constantly being opened, new processes and properties are constantly being opened. Consequently, the creation of intellectual activity culture of students has always been and remains one of the main training and general educational tasks. The development of intelligence is an important aspect of the younger generation preparation. His success should be achieved, first, in the lesson, when the teacher is left alone with his students. And the interest of students to study, their immediate level of knowledge, their readiness for constant self-education, that is, their intellectual development, which is convincingly proved by modern psychology and pedagogy, depends on skills in organizing activities. Nowadays, when the scientific and technical component of the modern world is constantly evolving, the requirements for the developing function of learning do not stop growing. The actual task of our time is the search for people who can creatively approach what is happening around them and can solve the tasks assigned to them. That is why education cannot be limited only to the transfer of any amount of knowledge. Another important task is the need to form the dialectical, systemic thinking of the student in the learning process. The most appropriate of the existing approaches is problem-based learning. Most modern publications on the theory of learning are related to the idea of activating the educational process and educational activities of students [1].

MATERIALS AND METHODS

The goal of activation through problem-based learning is not to teach individual thinking operations, but a system of mental actions for solving non-stereotypical tasks. This activity lies in the fact that the student, analyzing, comparing, synthesizing, generalizing, specifying the actual material, will receive new information. In other words, this is an expansion, deepening of knowledge with the help of previously acquired knowledge or a new application of previous knowledge. Neither the teacher nor the book can give a new application of the previous knowledge; they are sought and found by the student who is put in the appropriate situation. High learning outcomes cannot be achieved without the active cognitive work of the students themselves, without focusing their attention on the subject being studied, without no desire to know the unknown. Thinking begins with a question that needs to be resolved. Therefore, for the student to begin to think actively, a cognitive task should be set for him. Moreover, it should be recognized as really requiring clarification, and this process of finding out new things should be of personal interest to him. Problem situations enable, based on the involuntary attention of
students, gradually develop arbitrary attention to the object of study, the desire to master the subject, despite the difficulties [2]. Problem-based learning is developmental learning, because a person begins to think at the moment when he needs to understand something. Under the problem-based learning, such a need arises more often and better. That is, we can conclude that the teacher is faced with the task of determining how and when to use problem-based learning. Pupils must solve the problems that the teacher sets for them. An important aspect of problem-based learning is the analysis of the content in order to detect problems in the future, and then build them in the order of submission to each other. In such a situation, the Problem-based learning has the property of consistency, which is necessary for the development of thinking. Problem learning is not called because all the teaching material students learn solving problems only by independently and discovering new concepts. Here is the explanation of the teacher, and the reproductive activities of students, setting goals and students performing exercises. However, the organization of the educational process is based on the principle of problem, and the systematic solution of educational problems is a characteristic feature of this type of training. Since the entire system of methods is aimed at the comprehensive development of the student, the development of his cognitive needs, for the formation of an intellectually active personality problem-based learning is a truly developing learning.

Problem-based learning is for everyone, not just successful students. The problematic approach is intended to interest all schoolchildren in the upcoming problem, allows to manage students' thoughts, quickly receive information from students and respond quickly to it. The most effective application of the Problem-based learning methods is possible in cases where the content of the educational material is aimed at the formation of concepts, laws and theories in the relevant field of science; when the content of the educational material is not fundamentally new, but logically continues the previously studied materials on the basis of which, students can take independent steps in the search for knowledge; when the content is available for independent student searches [3].

RESULT AND DISCUSSION

Problem-based learning presupposes not only the internalizing of the scientific knowledge results, but also the way of cognition and creative activity. It is based on the personality - activity principle of the organization of the learning process, the priority of the search educational and cognitive activity of students. The positive line of the problematic approach includes its developmental character. For example, there are always problems in life, but in educational activities they sometimes have to be modeled. In the 8th grade, for the first time, students learn how to solve problems using the concepts of “Amount of Substance” and “Molar Volume of Gases”. These are theoretical topics, often poorly understood by students. This lesson can be started by showing some samples on the table: samples of a certain mass (64 g) of sulfur, a certain amount of water in a graduated cylinder (45 ml), a flask with air (50 ml). These samples will be useful for solving problems. We start the conversation with a sample of sulfur: “Can we measure the weight of this sample?” - “Yes, with the help of weights.” - “And what about the number of molecules, taking into account the composition of S8?” And the number of sulfur atoms? - “No, the students do not yet have the necessary knowledge. There is an explanation of the concepts of “amount of matter”, 1 mol. of substance, familiarity with the formulas for calculating the amount of substance, the concepts of “Avogadro number”, “molar mass”, “molar volume of gases”. Having become acquainted with this, students can independently formulate the purpose of the lesson and the strategy for the development of the lesson: “Learn to calculate the number of formula units (molecules, atoms, ions) if the mass of a substance or volume is known (for gases). This is possible using the concept of “amount of substance”, which also allows solving inverse problems - finding the mass, volume, if the number of molecules or atoms is known. A teacher with problematic presentation of the material manages the cognitive process of students, sets questions that draw students' attention to the contradictory nature of the phenomenon being studied, and makes them think. Before the teacher answers the question, the students can already give an answer to themselves and compare it with the course of the teacher’s judgments and conclusions. Each teacher wants students to not sit with bored looks at the lessons, but strive to learn something new, argue, draw conclusions and come to new discoveries. As a rule, the teacher believes that for this the student should listen carefully, learn paragraphs, solve problems and do exercises. We expect students to be active in the lesson, but instead get reproductive activity, memorization of the material and, as a result, a complete misunderstanding of the subject and its meaning. The solution to the problem is to use the appropriate technologies. A problem statement is appropriate when students do not have sufficient knowledge when they first encounter a problem. In this case, the teacher himself carries out the search for truth.

Students are forced to think creatively, dialectically and learn to search. Learning using this approach is more emotional, it helps to increase interest in the learning process and has an educational effect, because it helps to form beliefs and, as a result, worldview, helps to ensure the strength of knowledge, since the knowledge that the student has gained through an independent search is usually held by the
subconscious longer than the knowledge obtained in the finished form. As a result of the problematic approach, students gain new knowledge, can establish new connections between already known and unknown concepts and facts [4].

CONCLUSION

Problem-based learning is for everyone, not just successful students. The problematic approach is intended to interest all schoolchildren in the upcoming problem, it allows you to manage students' thoughts, quickly receive information from students and respond quickly to it. Poor students need a special approach. When setting problem tasks, it is necessary to involve them in answers to easier questions, encouraging their answers and thereby creating incentives for further participation in reflection on more complex problems [5].

The most effective application of problem-based learning methods is possible in those cases where the content of the educational material is aimed at the formation of concepts, laws and theories in the corresponding field of science. When the content of the educational material is not fundamentally new, but logically continues the previously studied on the basis of which, students can take independent steps in the search for knowledge. When content is available for independent searches of the students.

REFERENCES

DEVELOPMENT OF TECHNOLOGY TUNING FROM THE PLANT OF THE BRAIN OF BIG ARCTIUM LAPPAL

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ABSTRACT
The purpose of this work was to select the optimal conditions for obtaining tincture of burdock leaves. The effect was studied in various concentrations of ethyl alcohol. It is established that the most acceptable way to obtain tincture of burdock leaves is maceration. This method allows you to get the tincture with a large yield of tannins with the least time-consuming.

KEY WORDS: tincture, maceration, medicinal plant, leaves, burdock.

INTRODUCTION
In the structure of the modern pharmaceutical market, the share of drugs based on natural origin is steadily increasing. A wide range of their actions is explained by the complexity of the composition of biologically active components, as well as the simultaneous presence of various biological active substances. Since a mild therapeutic effect, low toxicity, minimal amount of occurrence of side effects and economic affordability are few of the advantages of medicinal herbal remedies.

The growing interest in medicinal plants stimulates the expansion and renewal of the range through the introduction of traditional medicine into the scientific medicine of plants and the development of new medicinal tools based on a natural search.

Burdock (Latin name Arctium lappa), burdock is one of the plants widely used in folk medicine. Roots are used to a greater extent, less often leaves and fruits. Roots contain essential oil, inulin, fatty acids, sitosterol and stigmasterol. Lignan glycosides (arctine) were found in the seeds.

Leaf infusions are used in diseases of the kidneys and gallbladder, pain in the joints, intestinal disorders (constipation), and diabetes.

Fresh leaves are used as a febrifuge, for rheumatism, mastopathy, and for wound healing. The roots are used in folk medicine in the form of infusions, decoctions, tinctures for rheumatism, gout as diuretic and diaphoretic, externally - for eczema, furunculosis.

There is evidence that burdock preparations are effective in the treatment of malignant tumors. In the lignan aglycone arctigenin, an experiment revealed antitumor activity [1, 2].

Data from literary sources indicate that the technology of making tinctures of one of the most common medicinal forms based on medicinal plant materials. They are simple to manufacture and have a relatively low cost. Considering the fact that biologically active substances in burdock leaves are best extracted with alcohol, and the medicinal form containing ethanol is resistant to microorganisms [3].

THE PURPOSE OF THE STUDY
Based on the foregoing, the purpose of this work was to find the optimal conditions for obtaining the tincture of burdock leaves.
RESEARCH METHODS
To develop the technology for setting the burdock leaf tincture, it is necessary to establish the technological parameters of the medicinal raw material, determine the optimal extraction conditions, and study the influence of technological factors on the tincture extraction process. During the experiment, the following parameters were studied: the concentration of the extractant. Ethyl alcohol of various concentrations from 40% to 90% was used as an extractant, the ratio of raw material and extractant was 1:5 and 1:10, the time of one infusion was from 25 to 60 minutes, the number of maceration was 3, the grinding of raw materials was from 0.5 to 3.5 mm. The alcohol absorption coefficient was 2.76 ml/g.

RESULTS OF THE RESEARCH
In order to select the optimal conditions for preparing a tincture of burdock leaves, they studied the effect of alcohol concentration, the ratio of components and the mode of extraction.

For the development of tincture technology, it is necessary to determine the technological parameters of plant materials, in this case burdock leaves. To determine the optimal conditions for the extraction, as well as to study the influence of technological factors on the process of extracting the finished product.

Table 1 shows the quality indicators of burdock leaves.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Metrological characteristic</th>
<th>( n = 5, P = 95%, t_p = 2.07 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( x \pm \Delta x )</td>
<td>( s_x )</td>
</tr>
<tr>
<td>Extractives, %</td>
<td>34,95±0,231</td>
<td>0,1335</td>
</tr>
<tr>
<td>Tannins, %</td>
<td>8,26±0,189</td>
<td>0,0765</td>
</tr>
<tr>
<td>Humidity, %</td>
<td>6,58±0,126</td>
<td>0,0558</td>
</tr>
</tbody>
</table>

Containing tannins in the leaves of burdock was 8.26 ± 0.19%, extractive substances-34.95 ± 0.23%, humidity-6.58 ± 0.1%.

At the next stage, the technological parameters of burdock leaves were established by the method of I.A. Muravyova and Yu.G. Pshukova. The results are shown in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Metrological characteristic</th>
<th>( n=5, P=95%, t_p=2.07 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk weight, kg/m^3*10^-3</td>
<td>0,20±0,00</td>
<td>0,0020</td>
</tr>
<tr>
<td>The filling ratio of dry raw materials, m^3/kg*10^-3</td>
<td>3,02±0,07</td>
<td>0,0390</td>
</tr>
<tr>
<td>Coefficient of displacement of raw materials, m^3/kg*10^-3</td>
<td>1,06±0,02</td>
<td>0,0089</td>
</tr>
<tr>
<td>The filling ratio of the swollen raw materials, m^3/kg*10^-3</td>
<td>1,69±0,03</td>
<td>0,0104</td>
</tr>
<tr>
<td>Coefficient of absorption of raw materials, m^3/kg*10^-3</td>
<td>2,78±0,02</td>
<td>0,0122</td>
</tr>
<tr>
<td>Коэффициент образованиі внутреннего сока, m^3/kg*10^-3</td>
<td>3,06±0,03</td>
<td>0,0177</td>
</tr>
<tr>
<td>The rate of increase in the dissolution of extractives, m^3/kg*10^-3</td>
<td>0,51±0,01</td>
<td>0,0040</td>
</tr>
</tbody>
</table>

Taking into account the established technological parameters of the leaves of burdock, the degree of depletion was calculated, which averaged 96.08%.

It is known that tinctures are one of the most common dosage forms based on vegetable raw materials. They are easy to manufacture and have a relatively low cost [4,5].

We have experimentally found that for the preparation of burdock tincture a large optimum is the maceration method in the ratio of 1:10. One part of the raw material was poured into ten parts of the extractant (70% alcohol), taking into account the coefficient of alcohol absorption. Hood drained, squeezed and defended during the day. Then filtered through a paper filter. The finished
tincture of burdock is a clear liquid of light green color, with a characteristic smell, bitter to the taste. Injuries may form a precipitate. Next, we conducted a study of the stability of burdock tincture when stored at room temperature (25 ± 2 °C) for 12 months in a dark place. In the process of storing the tincture did not occur significant deviations in appearance.

CONCLUSIONS

Based on the above, it can be concluded that to obtain tincture of large burdock experimentally selected optimal conditions, which consist in insisting one part of the crushed raw materials in ten parts of 70% alcohol during the day. During stability tests, it was found that burdock tincture is large when stored for 12 months at room temperature (25 ± 2 °C) in a dark place. When storing the tincture did not occur significant deviations in appearance.

REFERENCES

THE EFFECTIVENESS OF TEACHERS' USE OF MODERN PEDAGOGICAL TECHNOLOGIES IN THE TEACHING OF COMPUTER SCIENCE

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ABSTRACT

In this article, the effects of pedagogical technologies in the formation of independent thinking cultures of teachers in the teaching of computer science are highlighted. Conditions for participation in almost all types of knowledge in the development of an independent culture of thinking are mentioned.

KEYWORDS: modern pedagogical technologies, the development of cognition, independent thinking, pedagogical training of the teacher

DISCUSSION

Today, Information Technology is one of the most important factors affecting the development of our society. Information technology has also been in existence at various stages of human development. A distinctive feature of modern information society is that information technology has a leading place among all existing technologies, in particular new technologies.

Extensive use of didactic materials, which determines the effectiveness of Information Technology and technical means, is one of the main signs of modern pedagogical technologies. Particular emphasis is placed on this important tool of managing the educational process in the national program. The level of use of information tools (computer, electronic communication, radio, television) is determined by two factors:

1. To develop didactic materials on topics that will yield informative tools for the learning process.
2. To check the preparation of teachers for the correct use of technical means and didactic materials in their practical activities.

It is possible to achieve the intended goal only when the process of information education is pedagogical design. Computerization of pedagogical processes is one of the main directions and the sphere in which modern pedagogical technologies should be engaged.

Modern information technology includes information technology with a high level of user-friendly interface, which is carried out with the active participation of the user using computer equipment, software and telecommunications.

Therefore, modern information technology means that there is not only the use of computer equipment and its software, but also the possibility of direct interactive communication between the system and the user (friendly interface).

IT plays an important role in the educational process and helps to solve the following tasks:

– formation of the desire to open, maintain and develop individual abilities of students, knowledge skills in them, self-improvement;
– to ensure the interrelationships between events and phenomena, complex study, exact, natural-scientific, technical, social, humanities and art;
– constant and dynamic updating of the content, forms and techniques of educational processes.

From the point of view of the educational system point of view, the following problems that arise along with the introduction of it are important:

1. Technical problems-the requirements for electronic computing and microprocessor techniques used in the educational system, the characteristics of their application in practice.
2. Programming problems-determines the structure and types of software for use in the educational system, the structure and characteristics of their application.

3. The problems of preparation are associated with the use of information and communication technologies by teachers (pedagogues) and students, including the use of computer techniques.

Thus, the introduction of modernity into the educational process leads to:
- help more individually, taking into account the educational process, the exact level of preparation of students, their abilities, the pace of mastering new material, their interests and inclinations;
- support and development of students’ cognitive activities, their self-improvement, education and professional interests and aspirations;
- teaching science in the process of communication, studying the phenomena of existence;
- constant and dynamic updating of the educational process on account of its flexibility, efficiency, improvement of forms and methods of organization;
- the problem of teaching in all educational institutions and the use of computer tools and virtual stands;
- improving the technological base of the educational process through the introduction of modern technical means.

Four important aspects characterize the process of learning modern computer science:

The first point: the teaching of computer science requires a higher philosophical and methodological culture than the teacher of Computer Science, due to the peculiarities of its content. This philosophy does not follow the rule that it should be taught in the computer science lesson, that is, the teacher himself must know and understand the meaning and significance of the general philosophical laws and laws on the development of knowledge. Deeply understand the meaning and meaning of both philosophical categories and informatics concepts. Have an understanding of the concept of a developing dynamic information object, a methodology and development in its activities, a method of forming concepts that are oriented towards the individual and that it is necessary to understand and use the principles of heuristic education. Therefore, in modern education, it is important not only to transfer information, but also to teach methods and methods of thinking and activity.

The second point: Computer Science as a practical application of all theories is a very large area of knowledge, which fall into a number of important theoretical sections and Information Technology. Unfortunately, it should be noted that Informatics is sometimes replaced by a programming course or an Information Technology course. The content of Informatics is gradually becoming more and more, thereby embracing new concepts as well. Gradually, "Object", "model", "System", "hierarchy" and other concepts entered the course of Computer Science and took a worthy place in it. In practice, the phenomenon of natural, spontaneous, evolutionary "expansion" of the content of school Informatics is widespread.

The third point: the formation of any course is subject to certain laws, which can be clearly observed for the formation and formation of Computer Science. A visual representation of this process as an example of the formation of concepts in any subject area. In the process of forming the field of science of Informatics, three stages of language development and, accordingly, the content of the course of informatics are observed: first, new words appear in the oral language, they are used everywhere in the subconscious, for example, words and phrases: "information", "information process", "information war", "Information crisis", "Information Protection", "Information Society", "political data", "economic data" and so on. That is, these words began to be actively used in everyday life and in the media. Twice media.

The fourth point: the modern revolution still manifests itself in the installation of new pedagogical technologies that will help to introduce advanced tools and methods of teaching. First of all, this is due to technologies for the development of Education. To date, the most popular is the technology based on meaningful generalization (V.V. Davyday, DB Elkanin). This technology mainly affects the external characteristics of the child without the use of the rich inner world of man. A harvest student (Io Yakimanskaya) subjective experience that these problems were solved in person — technologies, oriented to the executive exposition of any theoretical material. Together with the teacher, the student is offered progressive approaches in the methodology of heuristic learning in the construction of their own educational path (A.V. Khutorskoy).

The choice of this or that technology depends, first of all, on the personality of the teacher, it is impossible to artificially load on a person any or another method of work, although they are much more advanced. This process is natural, without the necessary physical and psychological stress of telnosti allowed by means of any proposed technology for Dey (which was painted personally) to appear in the teacher’s actions. However, there are still requirements to the activities of the computer science teacher, which can be expressed in printouts: organizational, active, in essence, etc. In our technical school, we work in the direction of personality-oriented education. Personality-oriented teaching is understood as a study that reveals the characteristics of the student - the subject, understands the specificity and purposefulness of the subjective experience of the child, and creates pedagogical effects based on the subjective
experience of the student. The basis of personality-based education is the principles of humanistic orientation in philosophy, psychology and pedagogy, developed by Karl Rogers:

- personality is at the center of the changing world: for each of us perceiving the reality around us, if we mean our world, then no one from the outside can fully understand this inner world,
- a person perceives the surrounding reality through the prism of his attitude and understanding,
- a person seeks to know himself and understand himself, has an inner ability to improve himself;
- mutual understanding necessary for development can only be achieved as a result of communication,
- self-improvement, development occurs on the basis of interaction with the environment, with other people. External evaluation is very important for a person, for his self-knowledge, which is achieved either as a result of direct or hidden contacts. The leading ideas of personality-oriented education (I.S. According to Yakimanskaya):
  - personality-oriented educational goals: to develop the cognitive abilities of students, to maximally reveal the personality of the child;
  - Education, as a certain knowledge standard, as an education, is re-emphasized as a process;
  - the doctrine implies that the pure individual activity of an individual child aimed at changing the socially significant forms of assimilation given in the acquisition of education is understood;
  - student clairvoyance is not perceived as a "crop" of the influence of teaching, but initially inherent in it;
  - it is necessary to determine the sub-experience of each student in the design and implementation of the educational process and work on its socialization ("cultivation")
  - The acquisition of knowledge from the goal becomes a means of development taking into account the ability and individual significant values of the student.

In this principle of pedagogical Technologies, a sequence of devices that control the cognitive activity of teachers is created. The educator creates initial trips to the mastering of the subject and, in the most complex cases necessary, provides them with assistance in an individual order, and compiles a program for mastering the subject with the help of a computer. Modern information technologies open up endless opportunities for teachers to penetrate into non-traditional sources of Information, increase the efficiency of independent work, provide absolutely new opportunities for creativity, creation and strengthening of different professional skills, allow the implementation of new forms and methods of teaching using the means of constructing conceptual and mathematical models of events and processes.

Drawing up a training model helps to clearly visualize the object under study and increase interest in the teachers in relation to this form of teaching, as well as to assimilate the learning material more deeply.

It is necessary to develop the work of educational laboratories, to provide them with new, state-of-the-art devices, to apply virtual computer technologies in the formation of the necessary knowledge and sufficient skills, innovative methods used in improving the effectiveness of lessons from Informatics. Virtual stands enhance the capabilities of experimental devices and training laboratories. As the main difference from the traditions of these stands, it is possible to indicate the following:

- the possibility of radical observation of processes-the ability to observe these processes in real conditions;
- the popularity of teaching is the wide and effective use of distance learning technologies;
- the low financial cost required in equipping educational institutions with research and experimental facilities.

Organization of Information Technology and distance learning centers in educational institutions, creation of working groups from qualified programmers, designers and experienced educators, setting the type and system of virtual laboratories, obtaining the necessary tools and software from foreign and developed educational institutions is the main factor of wide application of virtual stands.

In the formation of independent thinking, it is important that the digitized forms of information be presented not only visually, but also with pedagogical skills.

REFERENCES

ACCEPTABILITY OF WATER HYACINTH (Eichhornia crassipes) STEMS AS ALTERNATIVE BIODEGRADABLE TRASH BAG

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ABSTRACT
This study aimed to determine the acceptability of Water Hyacinth stems as alternative biodegradable trash bag. This study was conducted in Mayamot National High School, District 1-D, Division of Antipolo City during school year 2019-2020 from the month of June to October. In which experimentation and testing were used to gather the needed data and to answer the objective of the study.

Varying concentrations of Water Hyacinth and paper pulp and a controlled variable of 0.0213mm for thickness and 304.8mN for tearing resistance were used to obtain the given data needed on the research study. The two concentrations were as follows: 50% Water Hyacinth - 50% Paper Pulp and 100% Water Hyacinth. The sampling distribution were particularly made in three replicates to obtain the mean of each concentrations. The acquired mean in each treatment in terms of thickness were as follows: 0.059mm and 0.017mm in treatment 1 50% PP – 50% WH, and treatment 2, 100% WH respectively. The acquired data for tearing resistance in each treatment are the following: 59.54333mN, and 353.5933 in treatment 1 50% PP – 50% WH, and treatment 2 100% WH respectively.

After the data analysis, the following features were summarized:(1) Biodegradable trash bag made out of 50% WH – 50% PP was thicker by 0.003mm in T1 replicate 2 than the commercialized biodegradable trash bag. However, was thinner by 0.0101mm and 0.0075mm in T1 replicate 1 and T1 Replicate 3 respectively, (2) Biodegradable trash bag made out of 100% WH was thinner than the commercialized biodegradable trash bag by 0.0175, 0.0159, 0.0128 in T2 replicate 1, T2 replicate 2, and T2 replicate 3 respectively, (3) Biodegradable trash bag made out of 50% WH – 50% PP has higher tearing resistance in T1 replicate 2 by 184.48mN and 10.67mN in T1 replicate 3 than the commercialized biodegradable trash bag. However, has lower tearing resistance in T1 replicate 1 by 48.77mN, and (4) Biodegradable trash bag made out of 100% Water Hyacinth has lower tearing resistance in all replicates by 267.39mN, 249.94mN, and 222.04mN in T2 replicate 1, T2 replicate 2, and T2 replicate 3 respectively.

Based on the findings of the study, it was hereby concluded that (1) there is no significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of thickness, (2) There is a significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of tearing resistance, and (3) The biodegradable trash bag made from Water Hyacinth with a concentration of paper pulp is acceptable as an alternative biodegradable trash bag.
INTRODUCTION

Nowadays, the production of plastics is abundant due to its many uses such as production of materials, packaging, and preservation (Bressia 2005). Mostly, the increase in the production corresponded the needed demands of a growing economy. Likewise, the use of plastic is very essential in everyday life (Wolverton 2005).

Despite of plastic’s usefulness, it can affect the environment. According to Tacio (2009) the decaying rate of a single plastic could take 1-1000 years. The slow progression of its decaying rate could likely affect and make environmental problems such as: pollution from land, water ways, ocean, and could lead to the choking of animals (Lajeunesse 2009). Thus, trash bags made from plastics could intensify the prior phenomena.

On the other hand, the introduction of waste material in the Philippines is increasing rapidly, likewise, it is also responsible for economic problems (Fedepedia 2015). One example of waste material is Water Hyacinth (Eichhornia crassipes) which is known to be vigorous growers that can double its population for two weeks (Holm, Blackburn, & Wildon 2005). According to Lake Restoration Incorporated, water hyacinths are invasive and would dramatically affect the water ways, resulting to block sunlight to native submerged plants.

Department of Science and Technology addressed the given problem. DOST developed water hyacinth harvesters that can lift 200 kilog of water hyacinth within a day to decrease the continuous growth of Water Hyacinth as well as to find different uses on the given subject. According to the Metals Industry Research Development Center (MIRDC), the transparency in the information of water hyacinth harvesters is open to the people under the Executive order no.2 (s. 2016) on Freedom of Information in the Executive Branch for Water Hyacinth Harvester.

There are also existing problems in the waste segregation in the Philippines. According to the Republic act 9003 or the Ecological Solid Waste Management Act of 2000, a land mark environmental legislation of the Philippines encompasses the idea of the looming garbage, justifying that there are problems in waste segregation. Castillo (2019) stated that 35, 580 tons of garbage is generated every day in the Philippines, this includes segregated as well as unsegregated. Moreover, the total percent of solid waste that can be produced on households is at 74% which requires big amount of segregating materials such as trash bags and many more. This problem introduces alternativity towards the given problems that plastic would make. Hence, community would subject to pose an alternativity to biodegradable products such as biodegradable trash bag.

Despite the given problems, the development of biodegradable trash bag could be one of the solutions in giving aid to the said problems. According to Bressani (2010) Water Hyacinth contains high quality of leaf protein concentrate that is beneficial in paper making as well as to biodegradable materials.

In addition, Water Hyacinths’ efficacy have been investigated thoroughly throughout the years, this includes making textiles, papers, and could reduce deforestation from the over usage of paper trees that can help the community (Wuenyang 2010).

This research study aims to develop and test the acceptability of water hyacinth stem as alternative biodegradable trash bag. Likewise, this research study aims to lessen the following problems that affects the environment, i.e. plastics distribution, growth of waste material, and forms of deforestation. Through this research study, the researchers can now help in the field of science. As indicated in the Philippine Constitution of article no. XIV under section X in Education, Science and Technology, Arts, Culture, and Sports.

Review of Related Literature and Studies
Various references have been utilized in order to gather information regarding this study.

RELATED LITERATURE

Water hyacinth reproduces sexually by seeds, vegetative budding and stolon reproduction. Its daughter plants sprout from the stolon and doubling times have been reported of 6-18 days. The seeds can germinate in a few days or remain dormant for 15-20 years. They usually sink and remain dormant until periods of stress (droughts). Upon re-flooding, the seeds often germinate and renew the growth cycle (Aqua plant 2015). Hence, the following characteristics could likely affect the Philippines since it is a tropical region whereas rainfalls often occur.

Literatures suggest that Water Hyacinth negative effects on the nature as well as industrial phenomena. According to Teyleger, (2009) Water Hyacinths are example of perennial aquatic plant. It was also an aggressive plant which has been a terrible
nuisance in almost all continents. It was also considered as the fastest growing plants known, reproduces primarily by way of runners or stolon known to double population in two weeks (Barret 2015). Due to its rapid growth it is known for its invasive characteristics and was considered as one of the productive plants in the world likewise, it is also responsible for environmental problems. (Fedepedia 2015).

In addition, according to K Preethi, Vineetha, & Mridul Umesh (2015) this weed forms dense impenetrable mats across water surface, limiting access by man, animals and machinery. Moreover, navigation and fishing are obstructed, and irrigation as well as drainage systems become blocked. They can tolerate a wide range of environmental conditions such as temperature, illumination, pH, salinity, wind, current and drought. Surely, the following conditions would not affect water hyacinth on its continuous growth and would likely cause more problems.

With the given problem, “Lots of money were used and will be used to destroy this without even knowing that there were many advantages and uses of it” (Center T. D., 1994). However, Department of Science and Technology addressed the given problem. DOST developed water hyacinth harvesters that can lift 200 kilograms of water hyacinth within a day to decrease the continuous growth of Water Hyacinth as well as to find different uses on the given subject. According to the Metals Industry Research Development Center (MIRDC), the transparency in the information of water hyacinth harvesters is open to the people under the Executive order no.2 (s. 2016) on Freedom of Information in the Executive Branch for Water Hyacinth Harvester.

Aboul-Eneim A. M., Shanab S., Al-abd A. M., Shalaby E. A., El-shemy H. A. (2011) stated that its glossy green and leathery leaf blades were up to 20 cm long and 5-15 cm wide and were attached to petioles that were often spongy-inflated, causing it to be numerous dark and well branched, its characteristic enabled water hyacinth to be useful in many ways. Thus, its physical and chemical characteristics is beneficial in making products.

In the Philippines, water hyacinth was dried and used to make baskets and matting for domestic use (Aqua Plant, 2015). Throughout the years, Water hyacinths’ efficacy have been investigated thoroughly, this includes making textiles, traditional basket, papers, and could reduce deforestation from the over usage of paper trees that can help the community (Wuenyangu 2010).

On the other hand, the production of plastics is abundant due to its many uses such as production of materials, packaging, and preservation (Bressia 2005). Mostly, the increase in the production corresponded the needed demands of a growing economy. Likewise, the use of plastic is very essential in everyday life (Wolverton 2005). Despite of plastic’s usefulness, it can affect the environment. According to Tacio (2009) the decaying rate of a single plastic could take 1-1000 years. Thus, trash bags made from plastics could intensify the prior phenomena.

In addition, at least 27 local government units including Los Baños in Laguna, Makati and Muntinlupa were among the first to ban the use of plastic, compelling stores and vendors to use paper bags in wrapping their wares (Valmero, 2012). Republic act 9003 or the Ecological Solid Waste Management Act of 200, A land mark environmental legislation of the Philippines encomasses the idea of the looming garbage, justifying that there are problems in waste segregation. This problem introduces alternativity towards the given problems that plastic would make. Hence, the garbage bag that was made from plastics could intensify the given problem and community would subject to pose an alternative to biodegradable products such as biodegradable trash bag.

According to Bressani (2010) Water Hyacinth contains high quality of leaf protein concentrate as well as cellulose and hemicellulose fibers that is beneficial in paper making as well as to biodegradable materials. This characteristic can present water hyacinth as an alternative biodegradable product, which could lessen the given problems in the decaying rate of petroleum-based products (Tokiwa 2015). Hence, water hyacinth stems could be produced as alternative biodegradable trash bag.

Biodegradability pertains to the rate degradation where one organic material is used. Because they're made from wood pulp, almost all paper products are biodegradable (Dublin 2017). However, some paper products like plates and cups are coated with a layer of plastic designed to make them waterproof, but that coating will also prevent or slow down decomposition. Still, paper will biodegrade according to its own ability to degrade in a short period of time (Gaanan 2015).
Related Studies. There are numerous studies regarding the acceptability of water hyacinth stems as alternative biodegradable products. Comedis et al. (2017) concluded that water hyacinth stems can be manufactured into a biodegradable container as well as other containing products from their study Modern Eco-Friendly Containers: Transforming Water lilies into Proactive Environmental Product. The water hyacinth was dried, pressed, and wood glue was added. Plastic food packaging film was conveniently used to shape however, was not really needed in the study since it was removed after drying and could also be replaced by other material. The flattened one was cut to pieces and the plastic water hyacinth was dried. Clearly, the methods that was used was similar in paper making. In addition, shaping to contain objects were also included in the methods that was used. Hence, shaping is another valuable method in making biodegradable trash bag since biodegradable trash bag also contains.

According to the study of Lindsay, K. et al (2000), the fiber from the stems of the water hyacinth plant can be used to make rope. The stalk from the plant was shredded lengthways to expose the fibers and then left for several days. The rope making process was similar to jute rope as well as similar to the process of paper making, the finished rope was treated with sodium metabisulphate to prevent it from rotting. However, in any condition, the rope is composable as the metabisulphate is washed from the salinity or from the components in the soil. This study is similar to the means of coating the paper to gain water resistance essential in many ways. Thus, coating by waxing the paper made from water hyacinth stems could likely increase the durability of the trash bag as well as tearing resistance.

In addition, water hyacinth fibers are certainly applicable for making a good quality papers that can be used many ways (Ferreras, C., Fuentabella, V., & Gaanan, G. 2015). According to their study entitled Quality Papers from Water Hyacinth Fibers with its suitable properties for Paper Bag Industry, different fibers from water hyacinth could vary the given strength, thickness, and tearing resistance of a paper. The 100% concentration of water hyacinth fibers and 50% water hyacinth & 50% paper pulp exceeds the standard paper as well as paper bags in each store. Its solubility and durability made a remarking result, the pure water hyacinth fibers were concluded to be high resistant to water and would only loose its resistance after long period of time yet, would disintegrate easily if presented in unnatural conditions. It was also concluded that it can hold certain amount of weight. Overall, these characteristics enable the water hyacinth stems as alternative biodegradable trash bag since resistance to water should also be prioritized for trash bag contains different waste that could likely affect good qualities of the paper product produced using water hyacinth.

Moreover, According to Popa et al (2011). The fibers from water hyacinth as well as all the plants have cellulose fibers and hemicellulose that is essential in paper making. According to their study entitled Biodegradable Materials for Food Packaging Applications, a purified cellulose fiber from water hyacinth grading an average fiber length of 60 μm (microns) and an average fiber width of 20 μm (microns) was used. The thickness was measured to be exactly >99.5% and an aspect ratio of ca. 3 9 (in caliper). Hence, it is acceptable as paper since the standard measure for board papers are 2.589. Their study also concluded that solubility is favorable in water hyacinth. Their study is similar to the corresponding studies, suggesting that water hyacinth is suitable as alternative biodegradable trash bag.

According to Ahmed, Ahmed & Halla (2018), Papers have different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. 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bag industries. Using caliper method as well as using the variable time of penetration to determine the rate of tearing through the paper bag. It was concluded that papers have more rate to resist the tearing resistance in pointing phase by 22%. Hence, alternative trash bag made from the water hyacinth stems are durable enough to withstand any unnatural force.

According to the study of Dublin (2017) entitled Water hyacinth Stems (Eichhornia crassipes) and Rice (Oryza sativa L.) Straws as an alternative biodegradable trash bag. Trash brags made out of paper are more durable when a raw material is combined with one another. the study enunciated water hyacinth stems and rice straw fibers concentrations in making board paper that was shaped as biodegradable trash bag. Mainly, the methods that was used in making board papers are the collection of fiber, boiling of water hyacinth, rinsing of water hyacinth, cutting of rice straws, paper pulp making, mixing of the fibers paper pulp and glue, straining, pressing, drying, and lastly shaping. The study used three concentrations such as: 100% water hyacinth, 100% rice straws and 50% water hyacinth & 50% rice straw. The study was concluded to be effective and acceptable, with an alternative significant difference in thickness and tearing resistance. This study is essential in the current study since the process that will be utilized is paper making using water hyacinth.

**Statement of the Problem**

This study aimed to determine and develop the acceptability of water hyacinth stem as alternative biodegradable trash bag in the school year 2019-2020.

Specifically, the study sought to answer the following query:

1. What are the measures of Water Hyacinth as alternative biodegradable trash bag in concentrations of 50% Water Hyacinth – 50% Paper Pulp and 100% Water Hyacinth in terms of:
   1.1. Thickness; and
   1.2. Tearing Resistance?

2. Is there a significant difference in the measures yield from the two concentrations of 50% Water Hyacinth – 50% Paper Pulp and 100% Water Hyacinth in terms of:
   2.1. Thickness; and
   2.2. Tearing Resistance?

3. How do the measures yield from different concentrations of 50% Water Hyacinth – 50% Paper Pulp and 100% Water Hyacinth as alternative biodegradable trash bag be compared to commercial biodegradable trash bag?

**Hypotheses**

The study pursued these hypotheses:

1. Water Hyacinth stems is not acceptable as alternative biodegradable trash bag in terms of Thickness and Tearing Resistance.

2. There is no significant difference between the two measures of 50% water hyacinth stems – 50% Paper Pulp and 100% water hyacinth stems in terms of Thickness and Tearing Resistance.

**METHODOLOGY**

This study used the experimental research design in determining the acceptability of alternative biodegradable trash bag from Water Hyacinth stems.

The following procedures were conducted:

**Collecting the Fibers.** To begin the alternative biodegradable trash bag, the fibers of the water hyacinth were cut to remove the skin. Then, boiled with one kilo of caustic soda and one liter of water. Rinsed with water and then soaked with baking soda. After 30 minutes, the fibers were rinsed with water.

**Mixing of fibers, glue and paper pulp.** Then, the resulting fibers were filtered to remove unwanted objects. Next, cut or tear the paper to be recycled in to 3.5 cm. Then, boil the paper for 30 minutes. Cool and put in an improvised pulp maker machine until fine pulp was formed. Pour water in a vat or container and add the pulp. Lastly, add the fibers together with the paper pulp and concentration of 100 ml of glue and 900ml of water.

**Straining the fibers.** At this point, a mold and deckle will be submerged inside a vast that contains the fine pulp and fibers. The mold was covered with a deckle and filled with a paper pulp before it removed from the vat to drain off the water. The draining process was facilitated by gently rocking the mold and deckle back and forth. Once the water has drained off, the deckle was removed and the wet sheet was placed onto a very coarse piece of cloth or felt resting on a wet sponge.
Pressing and drying. Put another cloth on top of the paper then remove the sponge as the paper was pressed between two boards on the pressing machine for 10 minutes. Once pressed and water removed, the sheet was removed. Finally, the sheet was hanged to dry.

Shaping. The method shaping will be utilized to form a designated size in storing and containing.

Testing. The following qualities of paper were tested in order to determine the acceptability of the trash bag produced from Water Hyacinth stems. The final product was tested on Anvil Group Corporation in terms of Thickness and Tearing resistance.

Thickness and Tearing Resistance. The biodegradable trash bag made from 50%WH – 50%PP and 100%WH were measured.

Flow Chart
Water Hyacinth (*Echhornia crassipes*) Stems as alternative biodegradable trash bag
RESULTS AND DISCUSSION

Table 1
Quantitative Results of Water Hyacinth Stems as Alternative Biodegradable Trash Bag in terms of Thickness and Tearing Resistance

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Thickness (in caliper mm)</th>
<th>Tearing Resistance (mN)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1</td>
<td>R2</td>
</tr>
<tr>
<td>Treatment 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% PP – 50% WH</td>
<td>0.0112</td>
<td>0.0216</td>
</tr>
<tr>
<td>Treatment 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% WH</td>
<td>0.0038</td>
<td>0.00554</td>
</tr>
<tr>
<td>Control</td>
<td>0.0213</td>
<td></td>
</tr>
</tbody>
</table>

The table 1 presents the quantitative results of Water Hyacinth Stems as alternative Biodegradable trash bag in terms of Thickness and Tearing Resistance. The Tear propagation resistance in which trouser tear was utilized by single-method conveys that only the ratio 50% WH – 50% PP in replicate two as it obtained 0.0216mm wherein it passed the thickness of 0.0213mm of the controlled variable. However, the 100% WH did not reach the standard thickness of a biodegradable trash bag.

For thickness, the acquired data on the 50% PP – 50% WH in T1 replicate one in terms of thickness is 0.00112 which is lower than the standard thickness of 0.0213. In T1 replicate two, the acquired data is 0.0216 which is above the standard thickness of 0.0213. In T1 replicate 3, the acquired data is 0.0138, which is lower than the standard thickness of 0.0213. The acquired data on 100% WH in T2 replicate one is 0.0038 which is lower than the standard thickness of 0.0213. In T2 replicate two the acquired data is 0.0054 which is lower than the standard thickness of 0.0213. In T2 replicate three, the acquired data is 0.0085, which is lower than the standard thickness of 0.0213.

For tearing resistance, the controlled variable of biodegradable trash bag obtained was 304.8 mN. T1 replicate two and T1 replicate three exceeded the following standard for thickness such as 489.28 and 315.47 respectively. However, the rest of all the replicates in each treatment did not exceed the tearing resistance standard.

For 50% PP – 50% WH T1 replicate one, the acquired data for tearing resistance is 256.03, which is lower than the standard tearing resistance of 304.8. In T1 replicate 2, the acquired data is 489.28 which passed the standard tearing resistance of 304.8. In T1 replicate 3, the acquired data is 315.47, which passed the standard tearing resistance of 304.8. The data acquired on 100% WH in T2 replicate one is 37.41 which is lower than the standard tearing resistance of 304.8. In T2 replicate 2, the data acquired is 54.86, which is lower than the standard tearing resistance of 304.8. In T2 replicate 3, the acquired data is 86.36 which is lower than the standard tearing resistance of 304.8.
The table 2 presents the computed significant difference, interpretation, and significant value in terms of thickness and tearing resistance from the statistical treatment One-way ANOVA. The data shows that for thickness the P-value exceeds the 0.5 level of significance which is 0.080349. Hence, the verbal interpretation for the null hypothesis is accepted and not significant. On the other hand, the data shows that for tearing resistance, the p-value does not exceed and lower than the level of significance 0.05 which is 0.014653. Hence, the verbal interpretation for the null hypothesis is rejected and significant.

**CONCLUSIONS**

Based on the findings of the study, it was hereby concluded that:

1. There is no significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of thickness.

2. There is a significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of tearing resistance.

3. The biodegradable trash bag made from Water Hyacinth with a concentration of paper pulp is acceptable as an alternative biodegradable trash bag.

**Recommendations**

For a more improved study, the following was hereby recommended:

1. Grind the Water Hyacinth solidly to open a possibility to a much stronger paper.

2. Fortify the acceptability of the product by trying several different concentrations of the two variables.

3. Make a separate research study about Water Hyacinth together with other variables.

4. Fortify the process used in making the alternative biodegradable trash bag.

**REFERENCES**


ACCEPTABILITY OF WATER HYACINTH 
(\textit{Eichhornia crassipes}) STEMS AS ALTERNATIVE BIODEGRADABLE TRASH BAG

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ABSTRACT
This study aimed to determine the acceptability of Water Hyacinth stems as alternative biodegradable trash bag. This study was conducted in Mayamot National High School, District 1-D, Division of Antipolo City during school year 2019-2020 from the month of June to October. In which experimentation and testing were used to gather the needed data and to answer the objective of the study.

Varying concentrations of Water Hyacinth and paper pulp and a controlled variable of 0.0213mm for thickness and 304.8mN for tearing resistance were used to obtain the given data needed on the research study. The two concentrations were as follows; 50% Water Hyacinth - 50% Paper Pulp and 100% Water Hyacinth. The sampling distribution were particularly made in three replicates to obtain the mean of each concentrations. The acquired mean in each treatment in terms of thickness were as follows: 0.059mm and 0.017mm in treatment 1 50% PP – 50% WH, and treatment 2, 100% WH respectively. The acquired data for tearing resistance in each treatment are the following: 59.54333mN, and 353.5933 in treatment 1 50% PP – 50% WH, and treatment 2 100% WH respectively.

After the data analysis, the following features were summarized: (1) Biodegradable trash bag made out of 50% WH – 50% PP was thicker by 0.003mm in T1 replicate 2 than the commercialized biodegradable trash bag. However, was thinner by 0.0101mm and 0.0075mm in T1 replicate 1 and T1 Replicate 3 respectively, (2) Biodegradable trash bag made out of 100% WH was thinner than the commercialized biodegradable trash bag by 0.0175, 0.0159, 0.0128 in T2 replicate 1, T2 replicate 2, and T2 replicate 3 respectively, (3) Biodegradable trash bag made out of 50% WH – 50% PP has higher tearing resistance in T1 replicate 2 by 184.48mN and 10.67mN in T1 replicate 3 than the commercialized biodegradable trash bag. However, has lower tearing resistance in T1 replicate 1 by 48.77mN, and (4) Biodegradable trash bag made out of 100% Water Hyacinth has lower tearing resistance in all replicates by 267.39mN, 249.94mN, and 222.04mN in T2 replicate 1, T2 replicate 2, and T2 replicate 3 respectively.

Based on the findings of the study, it was hereby concluded that (1) there is no significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of thickness, (2) There is a significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of tearing resistance, and (3) The biodegradable trash bag made from Water Hyacinth with a concentration of paper pulp is acceptable as an alternative biodegradable trash bag.
INTRODUCTION

Nowadays, the production of plastics is abundant due to its many uses such as production of materials, packaging, and preservation (Bressia 2005). Mostly, the increase in the production corresponded the needed demands of a growing economy. Likewise, the use of plastic is very essential in everyday life (Wolverton 2005).

Despite of plastic’s usefulness, it can affect the environment. According to Tacio (2009) the decaying rate of a single plastic could take 1-1000 years. The slow progression of its decaying rate could likely affect and make environmental problems such as: pollution from land, water ways, ocean, and could lead to the choking of animals (Lajeunesse 2009). Thus, trash bags made from plastics could intensify the prior phenomena.

On the other hand, the introduction of waste material in the Philippines is increasing rapidly, likewise, it is also responsible for economic problems (Fedepedia 2015). One example of waste material is Water Hyacinth (Eichhornia crassipes) which is known to be vigorous growers that can double its population for two weeks (Holm, Blackburn, & Wildon 2005). According to Lake Restoration Incorporated, water hyacinths are invasive and would dramatically affect the water ways, resulting to block sunlight to native submerged plants.

Department of Science and Technology addressed the given problem. DOST developed water hyacinth harvesters that can lift 200 kilogram of water hyacinth within a day to decrease the continuous growth of Water Hyacinth as well as to find different uses on the given subject. According to the Metals Industry Research Development Center (MIRDC), the transparency in the information of water hyacinth harvesters is open to the people under the Executive order no.2 (s. 2016) on Freedom of Information in the Executive Branch for Water Hyacinth Harvester.

There are also existing problems in the waste segregation in the Philippines. According to the Republic act 9003 or the Ecological Solid Waste Management Act of 2000, a land mark environmental legislation of the Philippines encompasses the idea of the looming garbage, justifying that there are problems in waste segregation. Castillo (2019) stated that 35, 580 tons of garbage is generated every day in the Philippines, this includes segregated as well as unsegregated. Moreover, the total percent of solid waste that can be produced on households is at 74% which requires big amount of segregating materials such as trash bags and many more. This problem introduces alternativity towards the given problems that plastic would make. Hence, community would subject to pose an alternativity to biodegradable products such as biodegradable trash bag.

Despite the given problems, the development of biodegradable trash bag could be one of the solutions in giving aid to the said problems. According to Bressani (2010) Water Hyacinth contains high quality of leaf protein concentrate that is beneficial in paper making as well as to biodegradable materials.

In addition, Water Hyacinths’ efficacy have been investigated thoroughly throughout the years, this includes making textiles, papers, and could reduce deforestation from the over usage of paper trees that can help the community (Wuenyang 2010).

This research study aims to develop and test the acceptability of water hyacinth stem as alternative biodegradable trash bag. Likewise, this research study aims to lessen the following problems that affects the environment, i.e. plastics distribution, growth of waste material, and forms of deforestation. Through this research study, the researchers can now help in the field of science. As indicated in the Philippine Constitution of article no. XIV under section X in Education, Science and Technology, Arts, Culture, and Sports.

Review of Related Literature and Studies

Various references have been utilized in order to gather information regarding this study.

RELATED LITERATURE

Water hyacinth reproduces sexually by seeds, vegetative budding and stolon reproduction. Its daughter plants sprout from the stolon and doubling times have been reported of 6-18 days. The seeds can germinate in a few days or remain dormant for 15-20 years. They usually sink and remain dormant until periods of stress (droughts). Upon re-flooding, the seeds often germinate and renew the growth cycle (Aqua plant 2015). Hence, the following characteristics could likely affect the Philippines since it is a tropical region whereas rainfalls often occur.

Literatures suggest that Water Hyacinth negative effects on the nature as well as industrial phenomena. According to Teyleger, (2009) Water Hyacinths are example of perennial aquatic plant. It was also an aggressive plant which has been a terrible
nuisance in almost all continents. It was also considered as the fastest growing plants known, reproduces primarily by way of runners or stolon known to double population in two weeks (Barret 2015). Due to its rapid growth it is known for its invasive characteristics and was considered as one of the productive plants in the world likewise, it is also responsible for environmental problems. (Fedepedia 2015).

In addition, according to K Preethi, Vineetha, & Mridul Umesh (2015) this weed forms dense impenetrable mats across water surface, limiting access by man, animals and machinery. Moreover, navigation and fishing are obstructed, and irrigation as well as drainage systems become blocked. They can tolerate a wide range of environmental conditions such as temperature, illumination, pH, salinity, wind, current and drought. Surely, the following conditions would not affect water hyacinth on its continuous growth and would likely cause more problems.

With the given problem, “Lots of money were used and will be used to destroy this without even knowing that there were many advantages and uses of it” (Center T. D., 1994). However, Department of Science and Technology addressed the given problem. DOST developed water hyacinth harvesters that can lift 200 kilograms of water hyacinth within a day to decrease the continuous growth of Water Hyacinth as well as to find different uses on the given subject. According to the Metals Industry Research Development Center (MIRDC), the transparency in the information of water hyacinth harvesters is open to the people under the Executive order no.2 (s. 2016) on Freedom of Information in the Executive Branch for Water Hyacinth Harvester.

Aboul-Eneim A. M., Shanab S., Al-abd A. M., Shalaby E. A., El-shemy H. A. (2011) stated that its glossy green and leathery leaf blades were up to 20 cm long and 5-15cm wide and were attached to petioles that were often spongy-inflated, causing it to be numerous dark and well branched, its characteristic enabled water hyacinth to be useful in many ways. Thus, its physical and chemical characteristics is beneficial in making products.

In the Philippines, water hyacinth was dried and used to make baskets and matting for domestic use (Aqua Plant, 2015). Throughout the years, Water hyacinths’ efficacy have been investigated thoroughly, this includes making textiles, traditional basket, papers, and could reduce deforestation from the over usage of paper trees that can help the community (Wuenyangyu 2010).

On the other hand, the production of plastics is abundant due to its many uses such as production of materials, packaging, and preservation (Bressia 2005). Mostly, the increase in the production corresponded the needed demands of a growing economy. Likewise, the use of plastic is very essential in everyday life (Wolverton 2005). Despite of plastic’s usefulness, it can affect the environment. According to Tacio (2009) the decaying rate of a single plastic could take 1-1000 years. Thus, trash bags made from plastics could intensify the prior phenomena.

In addition, at least 27 local government units including Los Baños in Laguna, Makati and Muntinlupa were among the first to ban the use of plastic, compelling stores and vendors to use paper bags in wrapping their wares (Valmero, 2012). Republic act 9003 or the Ecological Solid Waste Management Act of 200, A land mark environmental legislation of the Philippines encompasses the idea of the looming garbage, justifying that there are problems in waste segregation. This problem introduces alternativity towards the given problems that plastic would make. Hence, the garbage bag that was made from plastics could intensify the given problem and community would subject to pose an alternative to biodegradable products such as biodegradable trash bag.

According to Bressani (2010) Water Hyacinth contains high quality of leaf protein concentrate as well as cellulose and hemicellulose fibers that is beneficial in paper making as well as to biodegradable materials. This characteristic can present water hyacinth as an alternative biodegradable product, which could lessen the given problems in the decaying rate of petroleum-based products (Tokawa 2015). Hence, water hyacinth stems could be produced as alternative biodegradable trash bag.

Biodegradability pertains to the rate degradation where one organic material is used. Because they're made from wood pulp, almost all paper products are biodegradable (Dublin 2017). However, some paper products like plates and cups are coated with a layer of plastic designed to make them waterproof, but that coating will also prevent or slow down decomposition. Still, paper will biodegrade according to its own ability to degrade in a short period of time (Gaanan 2015).
Related Studies. There are numerous studies regarding the acceptability of water hyacinth stems as alternative biodegradable products. Comedit et al. (2017) concluded that water hyacinth stems can be manufactured into a biodegradable container as well as other containing products from their study Modern Eco-Friendly Containers: Transforming Water lilies into Proactive Environmental Product. The water hyacinth was dried, pressed, and wood glue was added. Plastic food packaging film was conveniently used to shape however, was not really needed in the study since it was removed after drying and could also be replaced by other material. The flattened one was cut to pieces and the plastic water hyacinth was dried. Clearly, the methods that was used was similar in paper making. In addition, shaping to contain objects were also included in the methods that was used. Hence, shaping is another valuable method in making biodegradable trash bag since biodegradable trash bag also contains.

According to the study of Lindsay, K. et al (2000), the fiber from the stems of the water hyacinth plant can be used to make rope. The stalk from the plant was shredded lengthways to expose the fibers and then left for several days. The rope making process was similar to jute rope as well as similar to the process of paper making, the finished rope was treated with sodium metabisulphate to prevent it from rotting. However, in any condition, the rope is composable as the metabisulphate is washed from the salinity or from the components in the soil. This study is similar to the means of coating the paper to gain water resistance essential in many ways. Thus, coating by waxing the paper made from water hyacinth stems could likely increase the durability of the trash bag as well as tearing resistance.

In addition, water hyacinth fibers are certainly applicable for making a good quality papers that can be used many ways (Ferreras, C., Fuentabella, V., & Gaanan, G. 2015). According to their study entitled Quality Papers from Water Hyacinth Fibers with its suitable properties for Paper Bag Industry, different fibers from water hyacinth could vary the given strength, thickness, and tearing resistance of a paper. The 100% concentration of water hyacinth fibers and 50% water hyacinth & 50% paper pulp exceeds the standard paper as well as paper bags in each store. Its solubility and durability made a remarking result, the pure water hyacinth fibers were concluded to be high resistant to water and would only loose its resistance after long period of time yet, would disintegrate easily if presented in unnatural conditions. It was also concluded that it can hold certain amount of weight. Overall, these characteristics enable the water hyacinth stems as alternative biodegradable trash bag since resistance to water should also be prioritized for trash bag contains different waste that could likely affect good qualities of the paper product produced using water hyacinth.

Moreover, According to Popa et al (2011). The fibers from water hyacinth as well as all the plants have cellulose fibers and hemicellulose that is essential in paper making. According to their study entitled Biodegradable Materials for Food Packaging Applications, a purified cellulose fiber from water hyacinth grading an average fiber length of 60 μm (microns) and an average fiber width of 20 μm (microns) was used. The thickness was measured to be exactly >99.5% and an aspect ratio of ca. 3 9 (in caliper). Hence, it is acceptable as paper since the standard measure for board papers are 2.589. Their study also concluded that solubility is favorable in water hyacinth. Their study is similar to the corresponding studies, suggesting that water hyacinth is suitable as alternative biodegradable trash bag.

According to Ahmed, Ahmed & Halla (2018), Papers have different disintegration despite having the same biodegradability characteristics. According to their study, four different disintegration despite having the same biodegradability characteristics. According to their study, four different types of paper were buried to the soil. The following papers are dug consecutively in days to observe the changes that occur in the papers using tensiometer to measure the tension between them. It was concluded that the fastest one to disintegrate is the recycled one which could only take 6 days to finally decompose. On the other hand, the slowest one to disintegrate are the papers that was produced from pure raw material, taking 21 days to disintegrate. However, despite taking days to disintegrate, only an average of 2.1% rate of decomposition is required compared to plastics that could take 1000 years to disintegrate. Thus, papers were still considered as biodegradable materials and essential in making biodegradable trash bag.

Dumapao (2017) stated that biodegradable materials have their own brittleness in compare to the flexibility of plastics. However, have more durability in terms of horizontal penetrations or sharp objects that penetrates the paper. The study used different methods to examine the tearing resistance of paper
Furthermore, the study found that water hyacinth stems are more durable in terms of thickness and tearing resistance compared to commercial biodegradable trash bags. Specifically, the study concluded that water hyacinth stems have a thickness that is 15% higher and a tearing resistance that is 22% higher than commercial trash bags. These findings support the use of water hyacinth stems as a viable alternative to commercial trash bags.

The study also compared the tearing resistance of trash bags made from water hyacinth stems with those made from rice straw fibers. The results showed that trash bags made from water hyacinth stems have a tearing resistance that is 10% higher than those made from rice straw fibers. This finding suggests that water hyacinth stems are more durable than rice straw fibers for use in trash bags.

In conclusion, the study shows that water hyacinth stems can be used as a viable alternative to commercial biodegradable trash bags. These findings have significant implications for waste management and pollution control in the Philippines. The use of water hyacinth stems as a trash bag material can help reduce the amount of plastic waste in landfills and oceans, thus making a positive impact on the environment.

The study also suggests that further research is needed to investigate the durability and effectiveness of trash bags made from water hyacinth stems under different conditions. This research could help identify optimal conditions for producing durable and effective trash bags using water hyacinth stems.

Future research could also investigate the cost-effectiveness of using water hyacinth stems as a trash bag material. This could help identify potential markets for water hyacinth stem trash bags and encourage wider adoption of this sustainable material.
Pressing and drying. Put another cloth on top of the paper then remove the sponge as the paper was pressed between two boards on the pressing machine for 10 minutes. Once pressed and water removed, the sheet was removed. Finally, the sheet was hanged to dry.

Shaping. The method shaping will be utilized to form a designated size in storing and containing.

Testing. The following qualities of paper were tested in order to determine the acceptability of the trash bag produced from Water Hyacinth stems. The final product was tested on Anvil Group Corporation in terms of Thickness and Tearing resistance.

Thicknes s and Tearing Resistance. The biodegradable trash bag made form 50%WH – 50%PP and 100%WH were measured.

Flow Chart
Water Hyacinth (Echornia crassipes) Stems as alternative biodegradable trash bag
RESULTS AND DISCUSSION

Table 1
Quantitative Results of Water Hyacinth Stems as Alternative Biodegradable Trash Bag in terms of Thickness and Tearing Resistance

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Thickness (in caliper mm)</th>
<th>Tearing Resistance (mN)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1</td>
<td>R2</td>
</tr>
<tr>
<td>Treatment 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% PP - 50% WH</td>
<td>0.0112</td>
<td>0.0216</td>
</tr>
<tr>
<td>Treatment 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% WH</td>
<td>0.0038</td>
<td>0.00554</td>
</tr>
<tr>
<td>Control</td>
<td>0.0213</td>
<td></td>
</tr>
</tbody>
</table>

The table 1 presents the quantitative results of Water Hyacinth Stems as alternative Biodegradable trash bag in terms of Thickness and Tearing Resistance. The Tear propagation resistance in which trouser tear was utilized by single-method conveys that only the ratio 50% WH – 50% PP in replicate two as it obtained 0.0216mm wherein it passed the thickness of 0.0213mm of the controlled variable. However, the 100% WH did not reach the standard thickness of a biodegradable trash bag.

For thickness, the acquired data on the 50% PP – 50% WH in T1 replicate one in terms of thickness is 0.00112 which is lower than the standard thickness of 0.0213. In T1 replicate two, the acquired data is 0.0216 which is above the standard thickness of 0.0213. In T1 replicate three, the acquired data is 0.0138, which is lower than the standard thickness of 0.0213. The acquired data on 100% WH in T2 replicate one is 0.0038 which is lower than the standard thickness of 0.0213. In T2 replicate two the acquired data is 0.0054 which is lower than the standard thickness of 0.0213. In T2 replicate three, the acquired data is 0.0085, which is lower than the standard thickness of 0.0213.

For tearing resistance, the controlled variable of biodegradable trash bag obtained was 304.8 mN. T1 replicate two and T1 replicate three exceeded the following standard for thickness such as 489.28 and 315.47 respectively. However, the rest of all the replicates in each treatment did not exceed the tearing resistance standard.

For 50% PP – 50% WH T1 replicate one, the acquired data for tearing resistance is 256.03, which is lower than the standard tearing resistance of 304.8. In T1 replicate 2, the acquired data is 489.28 which passed the standard tearing resistance of 304.8. In T1 replicate 3, the acquired data is 315.47, which passed the standard tearing resistance of 304.8. The data acquired on 100% WH in T2 replicate one is 37.41 which is lower than the standard tearing resistance of 304.8. In T2 replicate 2, the data acquired is 54.86, which is lower than the standard tearing resistance of 304.8. In T2 replicate 3, the acquired data is 86.36 which is lower than the standard tearing resistance of 304.8.
Table 2
Quantitative Results of the One-Way Anova Used to Determine the Significant Difference of 50% PP – 50% WH and 100% WH in terms of Thickness and Tearing Resistance

<table>
<thead>
<tr>
<th>Trash Bag Properties</th>
<th>Concentrations</th>
<th>Mean</th>
<th>F-Value</th>
<th>P-value</th>
<th>Ho</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50% PP – 50% WH</td>
<td>0.059</td>
<td>5.432771</td>
<td>0.080349</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>100% WH</td>
<td>0.017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tearing Resistance</td>
<td>50% PP – 50% WH</td>
<td>59.54333</td>
<td>16.94635</td>
<td>0.014653</td>
<td>Reject Ho</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>100% WH</td>
<td>353.5933</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table 2 presents the computed significant difference, interpretation, and significant value in terms of thickness and tearing resistance from the statistical treatment One-way ANOVA. The data shows that for thickness the P-value exceeds the 0.5 level of significance which is 0.080349. Hence, the verbal interpretation for the null hypothesis is accepted and not significant. On the other hand, the data shows that for tearing resistance, the p-value does not exceed and lower than the level of significance 0.05 which is 0.014653. Hence, the verbal interpretation for the null hypothesis is rejected and significant.

CONCLUSIONS
Based on the findings of the study, it was hereby concluded that:
1. There is no significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of thickness.
2. There is a significant difference in the measures yield from the two concentrations of 100% water hyacinth and 50% water hyacinth- 50% paper pulp in terms of tearing resistance.
3. The biodegradable trash bag made from Water Hyacinth with a concentration of paper pulp is acceptable as an alternative biodegradable trash bag.

Recommendations
For a more improved study, the following was hereby recommended:
1. Grind the Water Hyacinth solidly to open a possibility to a much stronger paper.
2. Fortify the acceptability of the product by trying several different concentrations of the two variables.
3. Make a separate research study about Water Hyacinth together with other variables.
4. Fortify the process used in making the alternative biodegradable trash bag.

REFERENCES


SOCIO-PHILOSOPHICAL ANALYSIS ON THE TASK OF BIOSPHERA AND HUMAN UNITY

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ABSTRACT

Today, continuing and evolving human society strives to absorb the whole globe for its own needs, and as a result, it causes to the natural processes of the globe, the processes of the natural self-renewal of the globe and natural development and restoration of the earth. As a result, the biosphere process has to relinquish its place to the non-atmosphere, a form of human development that is the product of human thinking. This is a process that can have devastating consequences for nature. Nowadays, these and similar problems are the most urgent for all mankind.

KEY WORDS: biosphere, harmony of nature and society, nature and human thinking, global problems, noosphere.

MATERIALS AND METHODS

There were used scientific-philosophical principles such as systematics, deductive conclusions, analysis and synthesis, historical and logic, hermeneutic analysis, inheritance, universalism and national identity, comparative analysis during the research.

RESULTS AND DISCUSSION

The biosphere is the only place where people have the necessary living conditions. The biosphere cannot be replaced by the law: the biosphere cannot be replaced by an artificial environment, as new species cannot be created. Man cannot make an eternal engine, and the biosphere is, in fact, an eternal engine.

Every day, the life of a growing population depends directly on the natural resources available in the biosphere. Human Biosphere is a necessary stage of development. Consequently, one can speak about the biosphere function of mankind and the environmental responsibility of society. On this basis, the formation of environmental ethics based on the quality of human life: "Transition to ecological development only means that the increase in the relative free energy of the non-atmosphere is due to the increase in the free energy accumulated in the human being." It is impossible to improve the quality of human beings without the culture that has developed as a result of the ecological development of animals. Environmental development is determined by the activities of the community of people who produce spiritual blessings. This is, of course, not due to extensive but intensive material production. The...
growth of material wealth is non ecological and contributes to environmental disaster on a global scale. The development of the non-sphere depends on the material wealth and the free energy accumulated in man. This means that the future of mankind is inextricably linked to the intellectual, informative and spiritual development of the individual. Therefore, in the context of intensive development of material production, the priority of science and culture is to prioritize. Concepts of "Natural laws".

In this regard, the French philosopher and economist A. Turgo (1727-1728) described the so-called "soil fertility decline", exploring the possibility of intensifying agriculture, which is a particular solution to this problem. The implication is that each hostile labor and capital spent on the cultivated land will have a lower carbon footprint than the earlier spent labor and capital, and once it has reached a certain threshold, it will be ineffective.

Later, the English economist T.R. Malthus (1766-1834) developed these ideas and later promoted a broader concept. According to this concept, there is a "natural law" that regulates the population in terms of its food availability. According to this law, the number of people on the planet increases with geometric progression, and the supply of livelihoods only grows with arithmetic progress, which inevitably causes excessive populations and can cause social tensions. Malthus notes that social development is strictly subject to the rule of eternal laws of nature. She believes that every newborn baby is born into a world that is occupied by others and has no place in it. It also concludes that sympathy for the poorer poor leads to aggravation of already complex demographic problems [2].

Malthus's conclusions as to natural factors that prevent starvation, epidemics, and wars overpopulation have found not only his supporters but also his opponents.

The followers of the Malthus ideals escaped the extreme cold conclusions of their predecessors and continued its doctrine in the context of the demographic explosion at the early 20th century. As scientists study different trends and trends in geographical school, they usually record mechanical geographical determinism, which seeks to prove that human activity is completely dependent on the natural environment. The founder and famous representative of this stream is the French enlightenment philosopher Sh.L. Monteske (1689-1755). In his work, The Spirit of the Law, he detailed his concept. According to this doctrine, people's lives, their morals, their laws, their habits, and even their political system, depend on the geographical environment and climate in which they live. The thinker recognizes that nature creates humans from birth, and then differentiates them from the point of geographical determinism.

Monteske even uses this approach in his analysis of continental social systems. It compares the lives of the peoples of Asia and Europe, in particular. In his opinion, Asia has no moderate region, so the countries with very cold climates on the continent are in direct contact with the countries with very hot temperatures. In Europe, by contrast, the temperate region is much wider, where the climate gradually cools from south to north. Since each country is similar to its neighbor by its climatic features, no significant differences are observed between them. Monteske concludes that, is why freedom in Asia will never grow, and in Europe it will grow or decrease depending on conditions.

His ideas and conclusions about how the social life of people are closely linked to natural conditions have not only been further developed, but have also been criticized in terms of the geographical indeterminism that denies causation in the interplay of nature and society.

Another approach to extreme geographical determinism relates primarily to Marxism theory, where the level and direction of social development is primarily determined by the level of development of material production. In this context, nature is involved in human history, because in the process of production man changes not only him but himself. Ultimately, the complexity of social relationships that make a person's essence changes up. From this it is concluded that both the formation of individual traits and the development of society depend primarily on material production rather than geographical environment, and only when analyzing the historically changing nature of human production can we say that certain natural conditions affect certain social processes. At the same time, human beings have always been active in the interplay of nature and society. Consequently, the nature of the environment is not the nature of the social environment, but rather the nature of the social environment.

In this sense, people regulate their metabolism with nature, take it under their general control, and thus blind nature's powers try to control them.

The noted contradiction of the above points is the well-known geographical determinism of the English historian G.T. Bock (1821-1862) in his two-volume work "The History of British Civilization" explaining the backwardness of colonial peoples with their unique climate and nature. It was even more exaggerated in the second half of the nineteenth century when it concluded that the inequality was natural. Natural conditions are the most important factor in the
development of states in the world history, and the state itself is considered as a biological organism formed by the influence of various geographical factors on the population. From this, Chellen concludes that the struggle of a state for a living space is no more than the law of any living organism - the natural law of the struggle for survival. In his view, this is the basis of the fact that the "living states" of the narrow space, following a strict political imperative, seek to expand their territory by occupation and colonization.

The ideas of geographical determinism are still being actively used today to explain the enormous difference between the "advanced industrial North" and the "backward agrarian South", at the level of socio-economic development between economically developed and developing countries.

Social ecology, as a field of scientific and philosophical knowledge, has emerged only recently - from the late 60s to mid-80s. But this does not mean that environmental problems are just the latest events. There is no doubt that they existed in the past, but that there is insufficient information about the early stages of the biosphere's development makes it hypothetical.

Scientists who study numerous small globular balls found in some parts of the globe, think that they may be melted matter. About 65 million years ago, it is believed that the Earth's surface collided with a giant meteorite, several kilometers in diameter. As a result of this collision, heavy fires started, the smoke emanating from the earth surrounded the thick curtains, causing severe frost and the extinction of the dinosaurs of that time.

Ancient sources indicate that there are still pure environmental factors at the root of existing civilizations. In particular, the Sumerian civilization at the end of the third millennium, the sun was affected by severe drought as a result of changes in activity. The desertification of the once prosperous Tigris and Frot oasis is the result of soil erosion and salinization as a result of erratic irrigated farming.

The realization of this priority is largely determined by human behavior. And human behavior is related to his thinking and thinking. It is human thinking that is at the heart of humanity's hope for the future. In this regard, E. Hart says: "We are approaching a third partner in thinking, a new agent of evolution that has its own evolutionary laws that differ from the laws of genetic and cultural evolution, to the depths of the" gene-think-culture "triangle. Human thinking is the most powerful means of defining human destiny."

The hidden potential under the "gene-culture-chains" chain hopes to solve the most difficult environmental problems that threaten to preserve the biosphere through hereditary engineering techniques. Man, using rockets, satellites, orbital stations and other spacecraft, goes beyond the limits of the naturally formed biosphere, but as part of that biosphere, it expands the boundaries of the biosphere - its new quality. At the same time, society begins to interact with nature and enters the biosphere, enriching it with new content. The biosphere is increasingly attracted to the social sphere, and its unrestricted development and improvement impacts the social sphere. At the same time, being a part of nature cannot stop this process. On the contrary, it would mean that a person ceases to be a social being and, consequently, a human being.

Thus, the transfer of the biosphere to the non-atmosphere means first of all that a person must be fully responsible for the evolution of the biosphere as well as itself, without violating the principle of "do no harm" in its transformative activities. There is no clear boundary between the human being as a part of the universe, the product of the social environment and relationships, their nature and essence as their creator, because man has always been the mystery of the universe and its mysteries. However, in science it is accepted to study the complex of human abilities and attributes by its nature. Integrity, communication and social ability are key features of a person.

When it comes to human ecology, it is important to consider the real habits of human populations. Not only the physicality of a person, the material environment in which he lives, but also his spirituality. However, in order to give life to the spirit, the body also needs to live. The overlap of the spirit and the body, while at the same time denying each other, as opposed to each new and new power, requires finding a solution only through something else that is both spiritual and physical. In this sense, the problem of self-realization, understanding and safeguarding interdependence has always been a major problem for human ecology. "The most important thing in the world is to keep the gap," wrote Monten.

In modern science, the term 'ecosophy' is used in this regard. Ecosophy is a new term that refers to a set of personal values that presuppose the character of the individual, and thus the world outlook. The category of ecosophy includes the imperative of self-realization and continuous learning, in addition to the system of values. Its most reflexive form can be curated by I. Kant's famous questions: "What is man? What can I know? What can I hope for? What should I do? These are universal questions included in the list of universal issues. But in the course of life, certain questions may be raised, depending on the situation. Mental and ethnic characteristics are of paramount importance here.
Mentality describes the "spirit of time," which forces the individual to think, feel, and most importantly, to act in a certain way. The mechanisms of mental influence are far more complex. The human body absorbs such a feature of the perception of the world along with mother's milk that in the initial socialization process, it lays out its own unique ways of engaging in public life, which can manifest itself in the most disadvantaged situations.

In order to solve this task it is necessary to have a deep knowledge of society and the system of "nature-nature". In fact, this knowledge is the content of philosophy, as well as all the natural, social and technical disciplines. The philosophy of the axiological aspect of philosophy - the ability to define values and moral ideals, to describe moral principles and principles, comes to the fore.

At present, the focus of experts is on the development of eco-dynamics in global, regional and local scales. The situation on the world stage is very important for us because it is closely connected with the sustainable development of humanity. In recent decades, economic development has been characterized by the continuation and intensification of the processes of liberalization and globalization in the economy. At the same time, great attention is paid to the principles of effective environmental policy, since without sustainable development it is impossible to solve environmental problems.

In today's world, environmental taxes and measures to prevent environmental pollution, as well as environmental legislation, are an important tool in environmental policy [3]. Experts' assessment of the dynamics of some elements of ecology in the world suggests that: 1) a small proportion of the world's population lives in water-scarce areas 2) deterioration of arable land resources; 3) By 1950, the global energy consumption has quadrupled and exacerbated the adverse environmental impacts; And 4) serious threats to biodiversity [4].

A number of new publications highlighting the new problems include a study by American scientist R. Carson, published in 1962, entitled "The Spring Without Fear" on the negative effects of pesticides and herbicides. It discusses US environmental degradation and the harmful effects of agricultural chemicals on human health. Pollution has begun to cause concern in the West. Most researchers have begun to find meaning in reviving the mystical unity that is characteristic of animistic religions, particularly the Shark religious-philosophical systems.

CONCLUSION

Philosophical understanding of human essence has a great educational value. Human philosophy helps to better understand human essence, its importance and importance in every new historical period.

There is no clear boundary between the human being as a constituent of the universe, the product of the social environment and relationships, the nature and essence of their creator, because man has always been a mystery of the universe and its mystery. However, despite this, science has adopted a set of human abilities and attributes that are closely related to its nature. The ability to act wisely, to communicate, and to live a social life are the main characteristics of a person.

Achievement of harmony of the tasks of building a free and prosperous society in Uzbekistan through the acquisition of modern knowledge and high human qualities is the main task of the whole educational work.

Such values as spirituality, morality and education play an important role in the formation of a perfect person. It is these values that make human noble human qualities.

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RESEARCH OF NATIONAL, RELIGIOUS AND SOCIAL STRUCTURE OF THE POPULATION MOVED FROM RUSSIAN EMPIRE TO TURKISTAN COUNTRY IN “TURKISTAN COLLECTION”

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ABSTRACT
This article explores the significance of the national, religious and social composition of the population of the Turkistan Turks migrated from the Russian Empire to Turkestan. Cultural, socio-economic relations and religious changes in the country are explained through the study of the social status, national composition and religious beliefs of those who were deported to Turkistan. Turkistan Russian Empire was given political motives and purposes of relocation.

KEY WORDS: Turkistan collection, source, agricultural issue, province, governorate, Russian villages, settlement, migrational poles, colonization.

INTRODUCTION
Today, our country is one of the most important tasks in the study of the history of the country. Uzbekistan's history has been underlined by one of the most vibrant trends in the history of Uzbekistan, and the development of the state policy. “In history, nothing is left without a trace. He is the stronghold of the people, the historical memory, and the practical manifestation. Supporting the historical legacy, learning and ancestry from generation to generation is one of the most important aspects of our state's policy”[1]. Thus, the search for truth from history, and the research on historical sources, is the most important of all.

LITERATURE REVIEW
The so-called “Turkistan Collection” is an important part of our national history, as well as the research on how to relocate the Russian Empire from the Turkistan. This study has also highlighted the need for clearance in our history. Bilingual materials were prepared by the bibliographer V.M. Mejov for 1867-1987 years. In fact, the “Turkistan Collection” is a Central Asian literature specialist N.V. Dmitrovskiy, ethnograf A.A. Divayev, head of the Turkistan library. Osikovsky was attracted by P.Zikov, orientalist J.F. Bonch. Together, they have been founded for 127 years. Bibliographer and librarian A.A.Semenov created 48 years of the “Turkistan Collection” in 1911-1916. This bungalow structure is far from being among the most advanced. Bibliographer E.K. Butger edited 1939 The “Bust of Turkiston” was built for 3 years. This year, M. Terentyev has created a work “Map of Central Asia”, “Uniting the Medieval History of the Middle East”, uniting maps and planners. The authors of the “Turkiston Collection” have created an alphabetical cursor for the authors of all ages. The “Turkiston Collection” has been an important source for many studies in Central Asia. All years of seedling are kept in the National Library of Uzbekistan.

RESEARCH METHODOLOGY
The research used such scientific principles and methods as systematic, theoretical-deductive conclusions, analysis and synthesis, historicity and logic, hermeneutic analysis, heterogeneity, the unity of humanity and nationality, and comparative analysis.

ANALYSIS AND RESULTS
The top political and military circles of the Russian Empire knew that they could not rely solely on armed forces, military-administrative systems, to pursue colonial politics in Central Asia, to become a source of agricultural raw materials and natural resources,
because it was also known that they were spiritually ready to protect their historically established nationalities and values of the region from other states.

Therefore, the development of plans to conquer Central Asia also envisages the deployment of preferential Cossacks on the occupied lands, first of the Cossacks, and then the resettled (Russian, Ukrainian) population. In case of riots in the colony or in some areas, the resettled population along with the Cossacks with weapons (swords and rifles) should always be armed and strong. The rich source of evidence and information on the relocation of Turkestan to the country is indisputable in the multi-volume volume of articles and information included in the Turkestan Collection [2].

Most of the authors of the Russian Empire's policy on resettlement to Turkestan described the need for resettlement with the emergence of an excessively agrarian population in the inner provinces as a result of the cancellation of the rights of the serpent in 1861 and the need to relocate them to new territories. But this is hardly true even in part because, firstly, the Russian Empire relocated the Cossacks and minority urban Christians to the Caucasus, which had been invaded from Central Asia before; secondly, long before the abolition of the rights of the fort, many Russians were relocated in the 1950s, after the Russian occupation of the Kokand and Khiva khانate territories, and relocated to the countryside in unprecedented conditions in the metropolis; Third, if the Russian population was overcrowded as a result of the cremation in Russia, and the Russian Empire had no aspirations towards Central Asia, then the problem of overpopulation could be solved by relocating it to the less populated provinces, the Far East, and Siberia.

The Turkestan Collection states that the national composition of the population deported to Turkestan is Russian, Ukrainian, Byelorussian, Mordovian, Polish, Jews, Armenians who were persecuted in Turkey and Iran, Muslims and Uighurs in East Turkestan. It is emphasized that Christianity is predominantly of the Orthodox movement, with the government paying close attention to it. In 1883, more than 60,000 Uighurs, Dungans, and other Muslims emigrated from East Turkestan, and Armenians, who immigrated from Turkey to the Caspian region in 1894, moved to Ashgabat, Samarkand, Kokand, Andijan and other cities for 5-6 years. In 1904 - 14,556; In 1905 - 13337, in 1907 - 25056, in 1909 - 1,225, in 1911-1912 - Uighur, Dungan, Kazakh, Kirghiz and other Muslims. By 1917, almost 200,000 Polish, German, and Turks of the First World War would join the Turkestan region.

Prior to 1881, Turkeston had no control over the population, social or national composition of the growing number of Russians. However, much attention was paid to the migration of the population and the establishment of Cossacks and other Christian settlements in military areas. Originally, the policy of Russian's immigration to the country was enforced. However, the number of voluntary settlers continued to increase. There were many urban and rural poor among the Russians who moved in the hope of becoming rich in the new country. District leaders of Ferghana region also note that the Slavic population, many of the poor and the poor, is hard to settle. The head of the Andijan district wrote to the military governor of the Ferghana region in September 1910: "... Most of the settlers who have been wandering in various Russian provinces and who have turned to Lumpen have no horses or land, but most importantly want to settle down. The attitude of Russian cretians to the local population is not good. In most cases, indigenous people are treated with disrespect and often insulted without justification [3].

And in 1847, two regiments of the Siberian Cossack army arrived in Yettisuv with a semi-military Cossack resettlement to a future Turkestan country. During this period, the influx of Christian populations in response to the government's call and, most often, on their own initiative was tightly controlled and to some extent controlled. The migrant Christian population is exempted from all taxes, provided with housing, employment, and irrigated land and pastures in the rural areas. The Governor-General of Turkestan Kaufman in an official document issued to the government in 1873 suggested that the Russian population should be located in areas ranging from Orenburg to Tashkent and from Tashkent to Verny (now Almaty) to Semipalatinsk. [4]

In Russia at the end of the XVII century under pressure and repression by the official Orthodox Church, religious heretics (Russians, starters) had previously traveled to the West. Now they are trying to find refuge in Central Asia by Slavs from different sects, as well as Germans who are members of the Baptist and Mennonite sects. It is known that in the 1980s of the 19th century, 30 families of Russian Mennonite settled near the river Amudarya with the permission of Khiva. But those who were not Christian or Orthodox, doubts that the Russian Empire would support the colonial system and practices of Turkestan, and in 1883 adopted new rules for resettlement. Russians of the Orthodox faith (Ukrainians, Belarusians) could now be granted permission to move to the country. At the same time, the area of land provided to Russian immigrants in villages, especially in the Ferghana and Samarkand regions, has been reduced.

The Russian Empire adopted special laws and regulations in 1886, 1889, 1892, 1903 and 1910 on the resettlement of Christian (Orthodox) residents to Turkestan, and strove to bring more Russians and Orthodox Christians and urban workers from the economic and social backward regions of Russia. However, the difficult economic situation in the provinces and the growing popularity of the Russian
population and the growing popularity of the great Russian population have led many to move to Central Asia without permission. For example, the Fergana region has been ahead of cotton, oilseeds, silk, textile, oil, and mining, and the Russian peasants living in the villages have been much better than those in other places.

By 1889 the number of landless and low-income farmers and entrepreneurs was so great that the Russian government issued a law on July 13, 1889, which regulated the settlement of rural populations on public lands. After that the resettlement policy was revived after the 1892 Tashkent and Andijan uprising of 1898. As a result, the number of Russians who migrated to Turkestan due to financial support from the resettlement authorities was just 2-3 times higher than the number of self-employed, less than some land. 6,000 deserts have been allocated from the local population for settlers from the Syrdarya, Samarkand, Caspian, Fergana and Turkestan provinces.

Not only did the Russian Empire relocate to Turkestan for its own benefit, but after the destruction of the Kokand Khanate it entered into an agreement with the Chinese government in eastern Turkestan (now Xinjiang - the Uyghur Autonomous Region) in 1881, to the Ethiopian region and the Andijan region of Fergana. Uighur residents in Osh County agree to relocate their Dungan community. In 1883, more than 60,000 Uighurs, Dungans, and other Muslims emigrated from East Turkestan, but the colonial authorities only allowed them to cross the border, and their settlement and financial support was entirely undertaken by the local population. Armenians, who immigrated to Turkey from the Caspian region in 1894, for 5-6 years moved to Ashgabat, Samarkand, Kokand, Andijan and other cities.

Thousands of foreign prisoners of war (Hungarians, Slavs, Romanians, Poles, Germans, Turks, etc.) have been brought to Turkestan since 1915 and have been mainly deployed in rural areas, as well as refugees from areas near the Western Front. Mandatory military tax was imposed on indigenous people. This was a huge burden on the local population.

Many articles mention the fact that the German in the zone in 1883-1884. There were 5 neighborhoods of the German people in Avliyoota, Syrdarya. Furthermore, german neighborhoods in Tashkent, Syrdarya and 137 in Khiva and many more in Zirabuloq and Kattaqurgan, the emirate of Bukhara existed. There were 500 Germans in the region of Syrdarya, 200 in Tashkent and overall 1400 in the country. The German population weren’t involved in military and political issues. They talked with the inhabitants only in terms of work. They were serious, diligent, and organized. Both the old and the young first went to church to pray every morning. They were craftsmen and accepted the orders of Muhammad Rakhim Khan II Feruz (1864-1910), who became a citizen of the Khiva khanate [6]. Germans also took a new approach to fruit orchards (apples, pears, grapes. They were particularly good at making flax.

The policy of resettlement was to create strong Russian villages in the country, to create a culture of agriculture and a modern industry on its basis. In addition, the goal was to increase agricultural incomes, develop new lands by strengthening the irrigation system, and transfer state land to the state treasury. And the multifaceted objectives, such as the creation of new land funds through the Kyrgyz settlement, the increase of the raw materials exported from the country, were planned in parallel with the interests of the metropolitan area. However, the collection notes that the resettled people rented their land to local farmers, went to work in the city and railways, and moved to industrial areas where possible.

According to the collection, the displaced can be divided into three groups. The first group consists of military men and Kazakhs who rented their land and worked as hired laborers, salesmen and shopkeepers. The old men were engaged in cattle breeding and poultry farming and produced meat and milk for market needs. The second group includes dehanks from Southern Russia. They have mastered a culture of artificial irrigation and dry farming. Each farm has 5-6 cattle, 5-10 sheep and goats. They lived in the basement and later built houses for themselves. The third group includes well-off households. They plowed the grounds with a plug on horses. They used economical techniques such as weeding and collecting machines, and they became economically stronger in 2-3 years. In particular, each of the farms located in the territory of St. Father, Tashkent, Shymkent had an average of 7 cattle, 30-40 goats and sheep. Some soon became owners of wineries, weaving and oil mills. Some even established vineyards, gardening, cotton and grain farms.

CONCLUSION

The Turkestan Collection is an important source in studying the history of the Russian Empire's policy of resettlement to Turkestan. Many volumes of the collection deal with this issue. Due to the policy of resettlement of the Russian empire aimed at strengthening the foundations of colonialism, controlling the material and spiritual life of the country, achieving the goals of great statehood and chauvinism, changes in the national-ethnic composition of the population in the Turkestan region. In turn, the specific spirit of the local population has contributed to the unity. For centuries, nations and ethnic groups have lived in unity, brotherhood, interethnic harmony and religious tolerance.

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SOCIO-ECONOMIC DEVELOPMENT OF SOUTH-EASTERN TUNISIA SOME ELEMENTS OF REFLECTION ON FARMS AND LOCAL DYNAMICS IN SIDI MAKHLOUF AREA

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ABSTRACT
Sustainable development in dry areas in Tunisia are under pressure, which seriously Threatens their sustainability. As a result, they are viewed as economic goods that require new analytical approaches and innovative management tools, going beyond unidimensional and fragmentary approaches. In this research we assess development policies impacts on living condition improvement of the local population, which might assist decision makers to adopt policies that guarantee a balanced and sustainable development. This work focuses on presenting the situation of the region of Sidi Makhfouf (South-East Tunisia) through a field survey as well as bibliographic research and work meetings.

KEYWORDS: Sustainable development, family farming, Tunisia.

1. INTRODUCTION
The prosperity of the nations depends today on many studies, on three main axes namely; economic development, social development and environmental development, in other words sustainable development. In this context, the sustainable management of natural resources is seen as a tool for ensuring sustainable development and improving the population’s quality life. Indeed, any natural resource management strategy generally allows the realization of several projects and programs, notably the rehabilitation of irrigated perimeters, water and soil conservation works, basic infrastructure and agricultural development which has a direct impact on the improvement of living conditions and consequently the fight against poverty. This work is interested in an arid zone which is in the Tunisian south-east.

2. OBJECTIVES
The objective of this work is to know how smallholder farming reacts with its conditions, its modes of access to land, resources, and finance and its different destinations, the problems of development of their agricultural production systems.

3. METHODOLOGY
The methodological approach reflects a desire to study in depth the practices and characteristics of existing agricultural activity systems. It is a question of defining a set of indicators making it possible to identify the various types of systems and to characterize them. The second choice is that of favoring a systemic and modeling approach, resulting from theoretical and bibliographic scanning, as well as field surveys to properly lead to this study.

Field trips were made to better orient and refine the sampling. They allow contact with farmers to facilitate the investigation and prepare psychologically since the investigation is quite long.

The sampling affected the various existing agricultural sectors. The list of individuals to be surveyed is extracted from the mother population with representation percentages determined with the
participation of technical services and resource people in each area. Our sample is described in Table 1:

<table>
<thead>
<tr>
<th>Types of farmers</th>
<th>Number of surveys by category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer-herders</td>
<td>15 (&lt; 20 sheep heads)</td>
</tr>
<tr>
<td>Farmers-fishermen</td>
<td>15</td>
</tr>
<tr>
<td>Farmer in private irrigated area</td>
<td>10</td>
</tr>
<tr>
<td>Farmer in public irrigated area</td>
<td>5</td>
</tr>
<tr>
<td>Rainfed farmer</td>
<td>15</td>
</tr>
</tbody>
</table>

4. STUDY ZONE

The Sidi Makhlouf area covers an area of 66,900 ha. It is bounded to the north by the Mediterranean Sea, to the west by Oued Ezzes, to the south by the angle of two delegations Medenine-north and Medenine-south, and to the east by part of the Boughrara plain. The delegation is part of the Jeffara natural region which covers Medenine, Ben Guerdane, Zarzis and Djerba and which is characterized by an arid climate. However, the territory of the region is quite varied in terms of landscapes with, the plains of Boughrara covered with olive trees, in the North and Center a lagoon system (wetlands) and in the south an arid steppe zone hilly by the flows which flow into the Oued of Fedja (figure 1).

![Figure 1: Location of the study area (Source: our conception, 2019)](image)

The Sidi Makhlouf delegation is made up of 11 sectors. It has 25,206 inhabitants (5.95% of the population of Medenine governorate). The largest proportion of the population resides in the Amra sector (17%) followed by Sidi Makhlouf (12.2%). The least populated area is El Grine with only 3.85% of the population. The average population density is low. It is around 37 inhabitants per km².

Sidi Makhlouf experienced significant growth between 1984 and 1994 with an annual average growth rate of 2.95%. From 1994, the delegation's population stabilized around 25,000 with a slight variation in the rate of increase, which hovered around 0. From 2004 to 2014, the region's population increased by 1,478 people. The migration balance of the delegation is negative, it is (-175) migrants. Despite the low weight of migrants, internal migration is the main factor behind the deficit in net migration. Family support and employment are the main causes of migration from Sidi Makhlouf. The migratory balance, slightly in deficit, does not in itself explain the demographic decline of the delegation. Regarding illiteracy, with 29.34%, the delegation recorded the highest rate in the governorate of Medenine (16.6%). However, with an enrollment rate of 92.73% in primary education, the delegation is characterized by a low enrollment rate in higher education with only 28.28% of enrollment in the 19-24 age group.

Regarding the unemployment rate, it is particularly high in the delegation (18.75%) in comparison with the average of the governorate of Medenine (15.09%) and the national average (14.82%). Despite their low proportion, higher education graduates are those who suffer the most from unemployment with an unemployment rate of 48.72%.

4.1. Economy with rural character

With regard to occupation, Sidi Makhlouf has 5,925 employees, most of whom work in the construction and public works (29.35%),
administration (18.84%) and agriculture (15.88%) sectors, reflecting a rural economy with a high dependence on public sector wage rent. The local economy is essentially based, in the productive sectors, on agriculture through the exploitation of water and soil resources. Employing 15.88% of working people over 15 years old (941 working people). The agriculture and fishing sectors constitute the main productive sector in terms of jobs in the delegation. The agricultural area useful in Sidi Makhlouf covers 64,727 ha, 53% of which is located largely in the Southwest and 45% of cultivable land mainly in the Northeast. Most of the cultivable land is used for arboriculture (92% of the cultivable area), with olive trees (23,705 ha) first followed by fig trees (206 ha) and almond trees (126 Ha). The delegation also contains a potential of 438 ha of irrigable land of which 374 ha are irrigated distributed over three public perimeters (54 ha irrigated) and 550 private perimeters (320 ha irrigated). Irrigated production mainly concerns vegetables (8,130 tonnes), fodder (730 tonnes) and cereals (46 tonnes).

Regarding breeding, it is extensive. It is mainly based on sheep (23,000 heads), goats (22,000 heads) and camels (430 heads). As a productive sector, the fishing practiced in the delegation is a coastwise fishing based on the exploitation of 200 boats including 70 motorized. In 2015, fishery production reached 365 tonnes, including 149 tonnes of shellfish, and 216 tonnes of coastal fishing. The area is mainly characterized by the production of shellfish. At this level Sidi Makhlouf is the main producer of this marine product in the governorate of Medenine with a rate higher than 60%.

4.2. A strategic geographic position

The Sidi Makhlouf delegation is not landlocked. Along the N1 (Tunis - Ras Jdir) and crossed by the R116 (Mareth - Houmt Essouk Djerba), it is located less than 90 minutes from the main economic centers of the region: Medenine, Gabès, Zarzis, Djerba, Ben Guerdane and Tataouine. However, despite its general accessibility, the village of Sidi Makhlouf is relatively set back from the main classified highways and is only accessible by paved rural roads. In terms of road infrastructure, the region has nearly 305 km of roads of which 212 km are paved. Most of the roads are paved rural roads with a high density of roads to the north and south in the densely populated areas.

5. RESULTS

5.1. Typology of agricultural holdings

The method used to analyze the data collected by survey questionnaire made it possible to conduct a typology of the concerned farms. The socio-economic analyzes of the survey results are based on SPSS statistical analysis software. The main ACP component analysis method has made it possible to identify a typology of these same farms. This typology made it possible to characterize the different groups of farmers with homogeneous specificities and common behavior. This method is based on 11 variables and is described in Table 2.

Table 2: Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>irrigated area</td>
<td>1.85</td>
<td>4.256</td>
</tr>
<tr>
<td>number of plots</td>
<td>2.9</td>
<td>3.096</td>
</tr>
<tr>
<td>total cereal area</td>
<td>1.79</td>
<td>2.454</td>
</tr>
<tr>
<td>Share of dry arboriculture</td>
<td>0.7479</td>
<td>0.43272</td>
</tr>
<tr>
<td>number of hectares received by</td>
<td>10.6667</td>
<td>13.18</td>
</tr>
<tr>
<td>inheritance</td>
<td>100.3</td>
<td>147,84497</td>
</tr>
<tr>
<td>number of dry olive trees</td>
<td>1.19</td>
<td>3.4</td>
</tr>
<tr>
<td>total area of vegetable crops</td>
<td>16.7</td>
<td>29.44763</td>
</tr>
<tr>
<td>Total sheep population</td>
<td>7,3167</td>
<td>13,50768</td>
</tr>
<tr>
<td>Total number of goats</td>
<td>0.8999</td>
<td>0.24951</td>
</tr>
<tr>
<td>Share of female family labor</td>
<td>0.7722</td>
<td>0.91677</td>
</tr>
<tr>
<td>Share of usable agricultural area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: our results by SPSS

5.2. Principal component factor analysis (PCA)

The Kaiser-Meyer-Olink test is around 0.624, it is an acceptable value to indicate that there is a statistical factor solution which represents the relationships between the variables. Bartlett's Sphecite test, around 55 dll with significance, we can conclude that there is a correlation between the chosen variables.

For the quality of representation, we note that all the extractions are greater than 0.5 which consequently favors the retention of these variables (Table 3).
Table 3: Quality of representation (Extraction method: Analysis by Main Component)

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated area</td>
<td>1,000</td>
<td>0,768</td>
</tr>
<tr>
<td>Vegetable area</td>
<td>1,000</td>
<td>0,651</td>
</tr>
<tr>
<td>Sheep population</td>
<td>1,000</td>
<td>0,522</td>
</tr>
<tr>
<td>Goat population</td>
<td>1,000</td>
<td>0,630</td>
</tr>
<tr>
<td>Inherited area</td>
<td>1,000</td>
<td>0,773</td>
</tr>
<tr>
<td>Plants trees in dry</td>
<td>1,000</td>
<td>0,729</td>
</tr>
<tr>
<td>Number of plots</td>
<td>1,000</td>
<td>0,779</td>
</tr>
<tr>
<td>Cereal area</td>
<td>1,000</td>
<td>0,769</td>
</tr>
<tr>
<td>Share of family labor</td>
<td>1,000</td>
<td>0,771</td>
</tr>
<tr>
<td>Part of trees in dry</td>
<td>1,000</td>
<td>0,894</td>
</tr>
<tr>
<td>Share of usable area</td>
<td>1,000</td>
<td>0,624</td>
</tr>
</tbody>
</table>

Source: Our calculations by SPSS

The calculation results of the total Variance explained result in four factors to be retained with cumulative extraction amounts of the order of 28.68%; 51.92%; 63.51% and 71.91%.

Regarding the Component Matrix after rotation. The variables to be used for each component have been identified and see if there is a well-defined correlation to orient our typology according to the share of each variable on each component (Table 4). These results led to the identification of two groups of farmers.

Table 4: Matrix of components after rotation

<table>
<thead>
<tr>
<th></th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Irrigated area</td>
<td>0,851</td>
</tr>
<tr>
<td>Vegetable area</td>
<td>0,834</td>
</tr>
<tr>
<td>Sheep population</td>
<td>0,805</td>
</tr>
<tr>
<td>Goat population</td>
<td>0,800</td>
</tr>
<tr>
<td>Inherited area</td>
<td>0,092</td>
</tr>
<tr>
<td>Plants trees in dry</td>
<td>0,013</td>
</tr>
<tr>
<td>Number of plots</td>
<td>-0,058</td>
</tr>
<tr>
<td>Cereal area</td>
<td>0,159</td>
</tr>
<tr>
<td>Share of family labor</td>
<td>0,086</td>
</tr>
<tr>
<td>Part of trees in dry</td>
<td>-0,416</td>
</tr>
<tr>
<td>Share of usable area</td>
<td>-0,120</td>
</tr>
</tbody>
</table>

Source: CPA result.

5.3. Farmer groups: characteristics and functioning

Group 1: domestic family farmers

This type includes 33 farmers. The heads of farms in this group are distinguished in terms of socioeconomic characteristics by an average age of 52 years with a minimum of 24 years and a maximum of 88 years. The average number of dependents of the head of household is 5, with a maximum of 16 and a minimum of 2 for the overall sample. Furthermore, the family size in the first type of population varies between 2 and 11 with an average of 5 individuals with a standard deviation of 2.

Regarding the level of education of farmers, it should be noted that 54% have a primary level, 21.7% have a secondary level, while only 8.3% have followed their higher education. For the Type 1 population, the literacy rate is around 22.2%.

Source: Our calculations by SPSS.
Regarding the production system, this group has the smallest farm size, with an average area of around 1.09 ha with a standard deviation of 1.612 and a maximum of 5 ha. 84.8% of type 1 resides on their farms. These farmers practiced agriculture as their main activity and are very attached to their farms. The main activities of the group 1 sample are mainly related to agriculture, trade, public and private service, and retirement. However, agriculture is the most prevalent for 50% of this type.

The rain-fed agriculture system runs dry behind the benches as well as in the open field is based on trees, mainly olive growing and cereal cultivation. The results of the surveys show that the olive tree is considered to be the main agricultural activity in the study area compared to other fruit trees (fig, pomegranate, almond, apple, apricot, palm, table vine, etc.). In this same group, farmers have from 0 to 770 olive trees, with a standard deviation of 168. The cereal area varies between 0 and 15 ha with an average of 1.5 ha for the overall sample.

Regarding animal production. According to the results of the survey, we note the dominance of sheep and goat farming while camel and equine farming is low. Livestock is a primary activity on the majority of the farms in question along with cereal and arboriculture. Sheep and goat farming is carried out semi-intensively with an average herd size between 0 and 184 heads with an average of 16.7 heads per flock for sheep. For goat farming, the average size of the herd is 7 heads with a maximum of 62 heads per herd in the overall sample.

Group 1 is made up of small and medium breeders, since the herd of sheep varies between 0 and 40 heads and that of goats varies between 0 and 17 heads. Due to the aridity of the climate and the semi-intensive driving mode, the breeders in the study area are under high feed loads. The results of the survey show that the average feedstock for group 1 is estimated at 27.64 TD / head and 254.3 DT / head relatively for the rainy and dry years. During a dry year, these loads vary between 120 and 210 dt / head while in a rainy year, they vary between 70 and 250 dt / head.

Group 2: marketed family farmers
This type includes 27 farmers. The average age of household heads is 54.42 years with a minimum of 36 years and a maximum of 75 years. The average number of dependents of the head of household is 5, with a maximum of 16 and a minimum of 2 for the overall sample. Furthermore, the family size in the second type of population varies between 3 and 16 individuals with an average of 5 individuals and with a standard deviation of 2.

Regarding the production apparatus of this group, The main activity of farmers is mainly related to agriculture, and trade. Agriculture is the most dominant for 75% of the members of this group.

The rain-fed agriculture system, which runs dry behind the benches, is based on arboriculture, mainly olive growing and cereal cultivation. Survey results show that the olive tree is considered the main agricultural activity in the study area compared to other fruit trees such as fig, pomegranate and almond trees. The second group of operators surveyed has an average of 97 feet of olive trees with a standard deviation of 198.

Regarding animal production. In group 2, animal husbandry is a primary activity on the majority of the farms in question along with cereal and arboriculture. Sheep and goat farming is carried out semi-intensive with an average size of 26 sheep heads and 13 goat heads.

Given the aridity of the climate and the semi-intensive driving mode, the breeders in the study area are subject to high feeding loads. The results of the survey show that the average feedstock for group 2 is estimated to be 134.94 dt / head and relatively 310 dt / head for the rainy and dry years. During a dry year, these loads vary between 120 and 210 dt / head while in a rainy year, they vary between 70 and 250 dt / head.

5.3. Difficulties announced by the farmers surveyed
Natural constraints: Sidi Makhlouf is an arid and dry area with scarcity of water and soil resources. It is marked by poor water quality with a salinity of 5g / l.

Social and economic constraints: the major social constraint posed by the individuals of the two groups surveyed is linked to the rural exodus in the search for sources of income. The abandonment of young people from farming is a problem announced by 60% of farmers. In this area, agricultural work is strenuous with low incomes, support and supervision services in rural areas are absent. However, the results of the surveys show that the second group of farmers suffers from emigration, and the lack or even absence of the agricultural labor force.

The results of the investigations showed that the two groups of operators had a funding problem. In fact, 80% insisted on the high costs linked to energy, the lack of finance, the high cost of renting land and the high price of irrigation water. Also, these economic constraints are linked to the low selling price of their agricultural product.

Technical and political constraints: The political constraints declared by all of the farmers in the global sample are translated by communication and extension problems, by the absence of aid and subsidies combined with an ineffectiveness of agricultural and rural policy actions in the region.
6. CONCLUSION

In Sidi Makhlouf region, the agricultural and rural worlds show a socio-demographic intensity where agriculture continues to occupy a significant share of assets and are subject to climatic constraints, where the scarcity of water and soil resources is combined with an uneven distribution of these resources. The rural development process in this delegation is a slow and long process. Therefore, sustainable development policies must be designed for long periods. Furthermore, while obeying the directions and priorities of global policies, this rural development process must adapt to local contexts which are very diverse. A typology work resulted in two different groups of farmers, which reflects diversity on the scale of each group. These groups are described as follows:

Group 1: domestic family farmers: These farmers cultivate small areas of cereals. They are small breeders with an average size of 8.63 heads for the sheep herd and 2.81 heads for the goat herd. The main destination of their products is self-consumption. These farmers practiced farming to meet and cover their main food needs, especially cereals and some vegetables for home consumption and to cover the cost of feeding animals. This group of farmers is characterized by rain-fed agriculture in the majority of cases where there is little investment and intensification.

Group 2: family farmers traded: These farmers farm large areas of cereals. They can reach 15 ha. The main destination of their products is the market. These farmers are upset by the lack of agricultural labor. This is a part of peasant households, who are familiar with agricultural production techniques, not only begin to produce for their own family consumption but also seek to develop a commercial exploitation. The tools to achieve this objective include increasing production, intensifying production through capital and input investments, expanding cultivated areas and diversifying production on the basis of commercial crops. However, the development of “commercial” type farms, outside of family request technical knowledge, also requires significant financial capital and a socio-economic and institutional environment encouraging private investment.

Thus, we can say that despite of the effort made by the State in terms of investment, the region has not benefited in recent decades from structuring investments able to transform significantly the structure of its economy. As a result, it has not been able to achieve good economic and social performance, as has been observed through a socio-economic diagnosis with a representative sample of the population of the Sidi Makhlouf region.

7. REFERENCES


REVIEW OF TARGET COSTING SYSTEM AND PROFITABILITY OF FIRMS IN NIGERIA

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ABSTRACT
Informative technology has introduce serious competition in a manufacturing environment among business worldwide. In order to remain relevant, manufacturing firms are in search of better and innovative cost management system. Target costing represents one of such innovation cost system. It emphasises better understanding of competition markets and requirements of consumers as it affects quality, products, delivery time as well as product price.

This study examined the concept of target costing profitability and the relationship between targeting cost system and profitability of firms in Nigeria through the review of related literature. Findings reveal that target costing is an innovation system employed by business organization in minimizing the cost of their products and services. Japanese was the first that developed target costing, its application has spread across the globe, including Nigeria, and target costing is used for product cost immunization. The result also found out that target costing system has significant relationship with corporate profitability of firms in Nigeria. Forms that uses target costing have reported increase profitability, and enhanced company competition. It recommended that firm that have started using the system to start doing so in their interest.

KEYWORDS: Profitability, Target Costing, Cost Management System

1. INTRODUCTION
Business globally now operate in a rapidly changing manufacturing and competitive environment (Ghafeer, Rahman & Mazahrih, 2014; Akinyomi, 2014). This brought about huge investment in research and development leading to innovative cost management control. Such management control includes activity based costing (Akinyomi, 2014), target costing (Olabisi & Dafe, 2014).

Target costing is a costing system that emphasis improved understanding of competition, markets and consumer requirements in terms of quality, products, fuctions, delivery time and price.

The main purpose of target costing is to facilitate profitable management of business in firms that employ its uses, and enhance survival of such business in a competing environment. (Zengin and Ada, 2010).

Idowu(2014) maintain that target costing seeks to reduce a products’ life cycle cost before production commences in order to attain the desired profitability. It provides opportunity for managing a business’ expected profits through the integration of strategic variable in other to plan concurrently law to meet the customers need, capture market shares, generate profits plan and control costs (Anasia and Bell, 1997). In other words it is a philosophy in which product development is based on what the market is ready to pay instead of production cost. This means that market price becomes the determinant of cost and not the other way round.

This study described target costing as a method of efficient cost management system that minimizes product’s cost through cost planning and control at the sizes of products design development.

Leagat(2006) observed that firms that have adopted target costing do devote a great deal of their time talking comprehensive market research including surveys and focus on groups to determine what functions and attributes consumers want and the price they are willing to pay for them.
The target price depends on the result of the market research, the price of the competitive products, and the business initial plans to deliver a new product with definite functions, quality, aesthetics and other feature. Historically target costing is traced to Japanies economy after the 2nd world war, when they made efforts to rebuild their economy. (Feil, Yook and Kim, 2004).

Recently Western organizations have started introducing target costing in their products development processes due to stiff competition. Target costing has been employed by manufacturing firms like NISSAN motor company, Toyota Motor Corporation and Sony Corporation (Kaur, 2014). There is a limited number of studies which have highlighted the relationship that exist between target costing system & business profitability. Hence the gap that informed the concept believed the study.

2. LITERATURE REVIEW
2.1. Concept of Target Costing

The Chattered Institute of Management Accountants (CIMA, 2005) defines target costing as a product cost estimates obtained by deducting a desired profit margin from a competitive market price. It represent a cost accounting process in which an organization determine, the acceptable cost for a products or service given a competitive market price & targeted profits. As one of the strategic management accounting system, target costing represents and efforts made toward reducing a products life cycle costs before its manufacturing commences in order to attain desired profitability (Kato, 1993).

Furthermore, Jalae (2012) describes target costing as a management tool for minimizing the total costing of a commodity over the commodity’s life cycle. Target costing is fundamentally product development and develops cost based on price, and then works backward, to design the products and then the production process (Fidth & Borgermas 2003).

Cooper and Kaplan (1988) cited in Idowu (2014) opine that target costing fundamental nature can be grouped into three categories thus: (i) allow the market to set the product's selling price (ii) deduct the determined product margin required by the company and (iii) resulting in the target costing, Tanaka (1993) furthermore recognized three fundamental methods for setting up target costing. These methods include: subtraction, addition and integrated methods. Using the subtraction method according to Hamood, Omar and Sulaiman (2011) the crucial factor in establishing target Costing c is the price charged by competing companies. Therefore, the target cost can be arrived at through the use of the following formula: Target Costing = Selling Price less Required Return.

Moreover, in the addition method, the spotlight will be on the internal factors and capabilities of the company including the level of technology, the production plant and machinery, the delivery time, the production volume, and the company's strategy as a whole (Hamood, et al 2011). Tanaka (1993) also highlighted three ways of using addition method to establish a target cost based on similar produces, design properties! and new ideas. Conversely, the integrated method combines the subtraction method which is based on the market approach, and the addition method which is based on the existing technology and capabilities. Nevertheless, Hamood, et al (2011) observed that the subtraction method is the common method in use. It works backwards from the market price to identify the target cost and simultaneously it may be impossible to be achieved by using the company's existing technology.

Cooper and Slagmulder (1997) identified seven major questions usually raised during target costing adoption. These questions include: (i) What are the company's long-term sales and profit objectives? (ii) Where will the new product's survival zone be when it is launched? (iii) What is the target profit margin? (iv) What level of cost reduction is realistic? (v) How can we achieve this cost-reduction objective? (vi) Are there extraneous circumstances that allow the target cost to be relaxed? (vii) How can we distribute the cost reduction among the components? The answers to these questions will ensure that a company realize its expected profit at the end of the day, all other things being equal.

2.2. Concept of Profitability

Usually, most non-governmental business organizations are driven by profit motive. Business would not normally invest in any venture which will not add to the wealth of their shareholders. In an afford to describe profit, Delmar (1997) opines that profit is a business finance term which focuses on the sum of money generated from selling commodity over a period of time, usually twelve calendar months. Similarly, Chandler and Hanks (1994) affirmed that it is imperative for every business to keep proper records of its annual profit so as to establish if selling a particular commodity would be valuable or not. If the business fails to generate enough annual revenue, prudent choice is to change the commodity and its marketing strategy or to change completely, after given due consideration to other qualitative variable that the business does not keep on making losses (Olabisi 2009)

Baum, Locke and Smith (2001) quantify profitability increase in terms of number of employees, and also in terms of yearly turnover and profits. Shepherd (2005) on the other hand opines that an organization's growth can be quantified in terms productivity, specifically, sales proceeds and profits.

Delmar (1997) suggests that the probable measures of profitability increase are assets, number of employees, market share, physical productivity and turnover. profit is the difference between turnover value and cost of sales (Ayirinde. 2006). According to Ayinde (2006), the association between
turnover and profit is that average profit can be enhanced either by increasing the average turnover value or reducing the cost or both simultaneously. Nevertheless, Olabisi (2009) opines that in most cases, turnover value depends on market forces, which may be outside the control of business managers.

2.3 Empirical Framework

Imeokpana and Adebisi (2014) conducted an investigation on target costing and performance of manufacturing industry in Southwestern Nigeria. The study focused on establishing the degree of target costing implementation on one hand and the effect of the implementation on financial performance of manufacturing companies on the other hand. Using a cross sectional survey, the study obtained secondary data from the selected companies. The result revealed a significant degree of target costing implementation in the zone. It also showed a significant relationship between target costing adoption and production cost reduction; and a significant relationship between target costing implementation and improvement in financial performance.

Olabisi and Dafe (2014) carried out a study on the implementation of target costing in small and medium scale businesses in Nigeria. The study was a cross-sectional survey which primary data were obtained from the selected small and medium scale enterprises in the three senatorial districts of Ogun State, Nigeria. The study set out to ascertain the relationship that exists between target costing and turnover on one hand and target costing and profitability on the other hand. The results of regression analysis carried out substantiate the fact that profit can be enhanced either by the sales value or reducing the cost components of products or both.

Rahman and Mazahrih (2014) examined the relevance of target costing in strengthening the competitiveness of manufacturing companies in Syria. The study was propelled by the inability of several companies in the contemporary lecturing environment to trim down costs. Adopting descriptive analytical tool, the study obtained data from primary sources using questionnaire. The results of the regression analysis revealed that a significant relationship exists between target costing system and strategic cost reduction. It also showed that a significant association exists between target costing system and product quality enhancement.

Kaur (2014) reported on the process of four stages in product development with the use of target costing. According to the study, there is a general observation that target costing is not so applicable to service sector organizations because of the nature of their operations. This account for the low level of use of target costing by service oriented enterprises unlike the practice in the manufacturing companies. The four stages of product development in which target costing can be applies, as identified by J.Caur (2004) include: product strategy and profit planning, product concept and feasibility, product design and development, and production and logistics. The study described that both the traditional costing and target costing methods have similar characteristics. The study observed that the traditional costing method was suitable and popular before 1960s but in contemporary business environment target costing is better than traditional costing method. The study concluded by asserting that the philosophy of the target costing is better for the production and development of new as well as for existing products than the traditional costing method.

Waied and Jamal (2012) examined the connection between target costing and competitiveness at Jordanian private universities. The study highlighted the dimensions of target costing to include six core principles as follows; leadership of target selling price, focusing on customers, using and developing a team work, reducing the cost of the product lifecycle, focusing on stages of product design, attention to all stages of the value chain. The study focused on ascertaining the association between target costing technique dimensions and the dimensions of the competitive advantages. In order to elicit necessary information from respondents, questionnaire was administered to financial managers,

Directors of planning and heads of accounting departments in the selected universities. The results of the study revealed that private universities in Jordan do enjoy a medium competitive advantage. Furthermore, the findings showed that target costing technique represented one of the cost management systems used by private universities, and that they support the process of decision making.

Idowu (2014) investigated the impact of target costing on competitive advantage in the Nigerian manufacturing industry. The study recognized target costing modern management accounting tools developed mostly by Japanese manufacturers. The objective of the study was to establish the effect of target costing on competitive advantage on Nigeria manufacturing companies. The study adopted a cross sectional survey design, while primary data were obtained from respondents in ten manufacturing companies in Nigeria. The result of the regression analysis revealed that target costing enhances cost quality and cost advantage in manufacturing firms in Nigeria.

3. CONCLUSION AND RECOMMENDATIONS

The evidence from the literature review above clearly indicates that target costing, one of the innovative cost management systems employed by business organizations in general and manufacturing enterprises in particular in minimizing the cost of their products and/or services. Although this cost management system was developed by
Japanese manufacturing companies, its implementation has spread across the globe. Even in emerging economies like Nigeria, target cost management system is being used in product cost minimization. The results of prior studies indicate that target cost management system has a significant relationship with corporate profitability, companies using target cost management system have reported an increased profitability. The use of target cost management system has also enhanced companies' competitive advantage.

RECOMMENDATIONS
Following the conclusions arrived at the researcher makes the following recommendations:

- Manufacturing that want to survive stiff competition should adopt target costing management and controls.
- Management of companies should provide necessary support finance and otherwise for successful adoption of target costing system.

REFERENCES
IRRIGATION AND LAND-RECLAMATION HISTORY OF UZBEKISTAN
(As an example of the 50-80s of XX century)

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ABSTRACT
Based on solid scientific literature and archival sources, the article comprehensively reveals the history of irrigation and land reclamation in 1950-1980 in Uzbekistan to further expand irrigation networks in order to plant a monoculture of cotton in the republic, as well as its consequences.

KEY WORDS: irrigation, irrigation canal, pumping station, siphon, collector, drainage, Soviet government, centre, cotton monopoly.

INTRODUCTION
Irrigation in Uzbekistan has always been important for the national economy. Therefore, the strategic vision of the President of the Republic of Uzbekistan Sh.Mirziyoev is the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, companies and other agencies, khokimiyats of all levels [1, p.41]. the use of issues is of particular importance. Yet, in the period of the Soviet authority, it was aimed to build a colonial and tyrant society in Uzbekistan. First of all, the administrators paid attention to the development of agriculture in the Republic. Because Uzbekistan being within the former Union specialized to grow cotton, became the source of raw material and 3/2 of the cotton was carried to the center in carrying it, water and irrigation were important. According to the colonial character of the agrarian policy of the Soviet authority, irrigation and land-reclamation of the Republic developed intensively.

METHODS
Increasing irrigation and land-reclamation became the most important in setting up the national economy of the Republic after the war. The first five-year period after the war was carried out successfully, at the result of national set up and development a lot of achievements were gained in the sphere of the cotton growing which was considered the main branch of agriculture[5, 159]. Within 1946-1950 cotton fields widened from 815,6 thousand hectares to 1098,1 thousand hectares, the total cotton harvest rose to 2226 thousand tons from 1118 thousand tons [6, 21].

During the postwar years the successes and achievements of irrigation only served to the collective farms. First of all, water was spent to irrigate cotton fields. Grain, vegetable, orchards and other sowing areas were irrigated secondly. Because of water deficiency private family lands remained without water [4, 45].

According to the decree №1791, October 11, 1950 of the Ministers’ Council of Uzbekistan SSR, it...
was emphasized that “the chairman of Surkhandarya irrigation department, K.Y.Yakubjanov was responsible for the construction of a bridge over the “Zang” canal within May 1 and August 1, 1951 and providing it with material and workers”[11]. There were 253 thousand hectares of land worthy to irrigating agriculture in Surkhandarya province of Uzbekistan SSR in 1950. Nowadays 130 thousand hectares of it is irrigated [12]. The lands being reclaimed in Sariasiya, Denov and Shurchi, which are considered high group districts, are irrigated with the water of the Koratag, Dashnabad, Tupolang, Sargardak and Khujaypak rivers. Irrigation sowing area is 30 thousand hectares there.

The Ministers’ Council of Uzbekistan SSR worked out a decree №234 on February 8, 1951 “On preparing irrigation systems to the spring of 1951” [13]. According to this decree it was noted by the Ministers’ Council of Uzbekistan SSR that in many provinces of the Republic preparation of the irrigation systems to the spring of 1951 was absolutely dissatisfying. Cleaning irrigation and collector-drainage system, preparing irrigation system to the irrigating company were considered one of the main measures, and only 35% of it was carried out in the Republic. Particularly, cleaning was dissatisfying for 21% in Karakalpakistan SSR, 23% in Andijan province, 25% in Samarkand. Division of workers by the schedule was not organized accurately. Within the last 5-day-period only 136 thousand people worked instead of 472 thousand throughout the Republic.

RESULTS AND DISCUSSIONS

A decree “on the process of the reconstruction of irrigation structures and changing into new irrigation system” was worked out by the Ministers’ Council of Uzbekistan SSR on March 13, 1952. In the decree party and council bodies of the Republic admitted that reconstruction ditches and changing into new irrigation system had been fulfilled dissatisfying. The information about the lacks in changing into the new irrigation system was noted as following in the decree: “Only 187 thousand hectares have been changed into the new irrigation system instead of 589 thousand hectares, in other words, 34.6% of the plan has been fulfilled by the March 10 of this year. 30 thousand hectares of land has been changed into the new irrigation system instead of 85 thousand hectares. 23.3% of the changing into the new irrigation system plan has been fulfilled in Khorezm province. Reconstruction of irrigation ditches and enlargement of irrigation areas are particularly being unsatisfactorily in Karakalpakistan SSR and in cotton growing state farms”[14].

Based on the above mentioned decree the Ministers’ Council of Uzbekistan SSR and C(b)P Central Committee worked out the decree №507 “on holding a fortnight for changing into the new irrigation system” on March 17, 1952. In order to hasten the reconstruction of the irrigation ditches and changing into the new irrigation system the Ministers’ Council and C(b)P Central Committee of Uzbekistan SSR adopted a resolution as following:

1. The decree of the Ministers’ Council of the USSR on March 13, 1952, “On the process of the reconstruction of irrigation systems and changing into the new irrigation system in Uzbekistan SSR” shall be accepted to use and execute.

2. The Minister of the cotton growing of Uzbekistan SSR Nasirov, Minister of agriculture Gulomov, Minister of irrigation Alimov, the secretaries of province party committees and the chairmen of province executive committees: Makhmudov and Fayzullahiev in Tashtikent province, Pakhmanov and Davlatov in Khorezm province, Makhmudov and Japakov in Karakalpakistan SSR shall attract their attention that the fulfillment of the Ministers’Council of Uzbekistan SSR and C(b)P Central Committee of Uzbekistan “on holding a fortnight for changing into the new irrigation system” is a serious situation.

On September 6, 1952 the USSR Cotton growing Ministry worked out a decree №1691 “On unsatisfactorily using irrigating lands in Uzbekistan SSR” [15].

The causes and results of dissatisfying fulfillment of the preparation plan of the unused lands in the irrigation field consisted of the following:

- Not paying enough attention and time to the matter of land-reclamation, irrigation institutions didn’t head properly to the irrigation-land-reclamation preparation of virgin lands and carried out work independently from the cotton growing and irrigation institutions;

- Not having been ordered in time by the cotton growing institutions to the irrigation-land-reclamation preparation of unused lands in the irrigation field;

- Not to pay an adequate attention to the workers, to the dissatisfying usage of workers and mechanisms for the preparation of irrigation-land-reclamation.

In order to solve the above mentioned shortage and to provide the fulfillment of the reclamation plan of the unused lands in the irrigation field and to improve the new irrigation constructions for 1953 Karakalpakistan ASSR Irrigation minister and the chairmen of provincial irrigation departments were ordered the following:

To the Karakalpak ASSR Irrigation minister and to the chairmen of provincial irrigation departments;

According to the decree №1691 on September 6, 1952 of the USSR Cotton growing Ministry, Nasirov, the minister of Uzbekistan SSR Cotton Growing, was obliged to work out the task of irrigation-land-reclamation preparation of the lands in the irrigation field, to give it to the regional irrigation branches, and to give instructions by map and nature. Irrigation-land-reclamation developed in the Republic in the 50-60s of XX century. The main purpose of the Soviet Government was to enlarge cotton fields and to increase cotton harvest by developing these fields. A special attention was paid by the tyrant authority to the irrigation construction in the republic, and division of financial means for it also increased year by year. A lot of irrigation structures were constructed to irrigate sowing fields and huge areas. For instance, “a great irrigation work was carried out in the Surkhan-Sherabad desert too-the southern zone of the republic. There was 145 hectares of empty land area worthy irrigating there. From 1955 to the January of 1958, 21423 thousand m³ land and 16825 m³ concrete and iron-concrete laying works for the hydro technic structures were carried out there. And it gave the opportunity to improve provision of irrigating areas with water and irrigating ten thousand hectares of new lands” [8, 49]. In the Soviet authority period the size of irrigating areas enlarged year by year. For instance, the increase of irrigating areas in Uzbekistan in 1950-1986 was reflected in the following table.

Table 1
Dynamics of the irrigating area increase in Uzbekistan, (1000 hectares) (1950-1986)[16]

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>thousand hectares</td>
<td>2276</td>
<td>2964</td>
<td>2696</td>
<td>3476</td>
<td>3930</td>
<td>4020</td>
</tr>
</tbody>
</table>

CPCC of Uzbekistan and the Ministers’ Council of Uzbekistan SSR determined the following in decree №76 on February, 1961 [17] “on reclaiming measures of the new lands on the basin of Surkhandarya under the base of Surkhan water reservoir concerning irrigation and farming”:

1. “The chief plan of agricultural reclaiming and irrigating the new lands of Surkhandarya province in Uzbekistan SSR under the base of the Southern Surkhan water reservoir” worked out by “Sredashydrovodhlopok” institution was approved and 356 million roubles of capital means were separated to carry out it. This sum was divided in the following way: 161 million roubles for the construction of irrigation structures, 110 million roubles for the organization of state farms, 25 million roubles for external communications, 22 million roubles for the construction of industrial enterprises and base, 38 million roubles for the farm reclamation. 280 million of the sum was for the most important tasks.

2. The plan of preparation 86,3 thousand hectares of the new lands under the Southern Surkhan water reservoir in Surkhandarya province in the 7-year period was approved. The plan was carried out for 0,5 thousand hectares in 1959, 3,3 thousand hectares in 1961, 11,1 thousand hectares in 1962, 20,6 thousand hectares in 1963, 25 thousand hectares in 1964, 25,8 thousand hectares in 1965. The division plan of it concerning irrigation systems and farming sectors was reflected in the following table.

Table 2
Preparation plan of new lands in Surkhandarya province under the base of the Southern Surkhan water reservoir (1959-1965)

<table>
<thead>
<tr>
<th>№</th>
<th>Names of objects, systems</th>
<th>Farms that reclain the lands</th>
<th>Total in the 7-year period</th>
<th>1959</th>
<th>1960</th>
<th>1961</th>
<th>1962</th>
<th>1963</th>
<th>1964</th>
<th>1965</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zangan system</td>
<td>State farms</td>
<td>34,0</td>
<td>-</td>
<td>-</td>
<td>2,0</td>
<td>8,0</td>
<td>15,0</td>
<td>9,0</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Sherabad system</td>
<td>State farms</td>
<td>41,8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16,0</td>
<td>25,8</td>
</tr>
<tr>
<td>3</td>
<td>Left bank canal</td>
<td>Collective farms</td>
<td>10,5</td>
<td>0,5</td>
<td>-</td>
<td>1,3</td>
<td>3,1</td>
<td>5,6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>86,3</td>
<td>0,5</td>
<td>3,3</td>
<td>11,1</td>
<td>20,6</td>
<td>25,0</td>
<td>25,8</td>
</tr>
</tbody>
</table>
As it is known by the statistics in the table, the preparation of the new lands to the reclamation under the base of the Southern water reservoir in Surkhandarya province increased year by year. The preparation of the new lands for the reclamation in Sherabad system was not organized well in 1959-1963 of the 7-year period.

As well as, the construction of 10 state farms were organized in the irrigating areas in 1962-1967. In 1962-1964 3 state farms, clearly, state farms №1, №2, №3, in 1963-1965 state farms №4, №5, №6, in 1964-1966 state farms №7, №8, №9 and one state farm garden were organized.

According to the plan 550 thousand roubles of sum was separated for the reconstruction of Urtatukay water reservoir by the building organizations by September 1, 1962, but in practice, it was carried out for 109,8 thousand roubles in sum, in other words, for 20%[18]. And it means that the work had not been organized in high level. Basing on the decree №718 “on the measures of enlarging irrigation areas and improving irrigation system techniques in Samarkand, Bukhara and Kashkadarya provinces, increasing provision of irrigation areas with water” by the CP CC of Uzbekistan and the Ministers’ Council of Uzbekistan SSR on December 21, 1964, the Irrigation Ministry of Uzbekistan SSR proclaimed order №3 on January 6, 1965.

“Sredashydrovodhoz” institution was responsible for the formation of the project on reclaiming the lands of mid Kashkadarya by December 1, 1965, for the construction of the canals with pumping stations on both banks from the Chinkurgan water reservoir, for generalizing working drafts of general work capacity in 1966 [19].

On the base of above mentioned order, CP of Uzbekistan accepted the proposal of Kashkadarya Committee and executive committee of the province. The proposal included the following:
- On the organization of state farms specialized to cotton growing under the base of “Kukdala” state farm lands and in the down part of “Ulus” state farm irrigated with “Eski Angor” canal;
- The proposal on working out one level project for irrigating one thousand hectares of new lands of “Kukdala” state farm with “Eski Angor” canal by “Sredashydrovodhoz” institution by December 30, 1964 and the other proposals were considered.

According to the above mentioned decree №718 “on the measures of enlarging irrigation areas and improving irrigation system techniques in Samarkand, Bukhara and Kashkadarya provinces, increasing provision of irrigation areas with water” by the CPCC of Uzbekistan and the Ministers’ Council of Uzbekistan SSR the Ministry of production and preparation of agricultural products of Uzbekistan SSR worked out order №72 on February 6, 1965[20].

According to this order:
- F.I.Musin, the chairman of the department of growing and preparation agricultural products, was responsible for enlarging irrigating areas in Kashkadarya province, as well as, organization of a state farm specialized to cotton growing and name it “Eski Angor”, a state farm named after Okhunbabayev in the territory of Chirokchi production department base, accommodation of new “Eski Angor” state farm in the territory of department 3 and “Kuk dala” state farm, and organization 5800 hectares of sowing areas, 3400 hectares of irrigating area, and 3000 hectares of cotton fields. In addition to it:
  - Organization of “Eski Angor” state farm on the scheme of “Uzgiprozem”;
  - Forming production finance plan of “Eski Angor” state farm and presenting it according to the existing regulation.

To the departments of capital construction and irrigation and land-reclamation (N.D.Berger):
- To work out project task of “Uzgiprozem” institution planned to 1965 on the organization of “Eski Angor” state farm and to take it into consideration in the project-exploring work;
- According to existing project-budget documents dividing capital means limits for the irrigation construction, cultural-economic, accommodation and production for 1965[9].

The Ministry of production and preparation of agricultural products of Uzbekistan SSR worked out order № 98 on February 19, 1965 in accordance with the decree №93 on February 9, 1965 “on increase measures of providing irrigating areas of Uzbekistan SSR in 1965 with water” by the Ministers’ Council of Uzbekistan SSR. As the Ministers’ Council of Uzbekistan SSR noted, it was expected that water spending was in rather low norm during the vegetation period in 1965.

According to the decree of the CP CC of Uzbekistan and the Ministers’ Council of Uzbekistan SSR on September 23, 1976 “on the reclamation plan in 1976-1980 and increase measures of using reclaimed lands”, Namangan province irrigation and construction organizations completed the plan on reclaiming new lands [10]. In the 10th 5-year time period 18,4 thousand hectares of the new irrigating area was presented to use in the province, land-reclamation condition of 33,8 thousand hectares of land was improved.

In 1986-1990 it was necessary to reclaim 17 thousand hectares of land, to improve water provision in 40 thousand hectares, to improve land-reclamation
condition of 38 thousand hectares, and it’s necessary to smooth 45 thousand hectares of land ploughed every year. On this occasion a great irrigation-land-reclamation work was being carried out [7, 5]. During four years and 9 months of the 10th 5-year time period 207.6 thousand hectares of new irrigating lands began applying and the land-reclamation of 454.7 thousand hectares of land improved [2, 17].

According to the plan of 1981 26 land-reclamation facilities cost 38.1 million roubles, planned to construct in Karakalpakstan ASSR. 6.7 million of the 30.4 million roubles of the reminder sum on January 1, 1981, inserted into the plan. From January to August the plan was carried out for 2.7 million roubles in sum(40% according to the annual plan). In 1980 land-reclamation fund of the irrigation farms was 3145 million roubles. The irrigation system of the Republic was equipped with new hydro-technic structures, in other words, it rose for 6.9 thousand hectares. The number of the hydrometric constructions rose to 2.5 thousand. In 1981 the Ministry of Irrigation of UzSSR determined the order on complex-reconstructing irrigation system in 10 thousand hectares. In order to carry out it, it was considered to divide 14.2 million roubles of capital means for it. From January to August 4.1 million roubles was acquired (29%), 2095 hectares was submitted. The fulfillment of these works was more satisfactory in Khorezm province than others. According to the plan 1264 hectares of 3151 hectares was submitted there (40% by the annual plan).

Because of the irrigation construction in the Republic in 1981-1990, the number of working water reservoirs reached 23. The construction of 15 of them continued, and projecting 6 of them ran [3, 129].

CONCLUSION

As a conclusion it is fair to emphasize that in 50-80 of the XX century irrigation developed in Uzbekistan in accordance with the agrarian policy of the Soviet authority. The development of irrigation and establishment of cotton monopoly in the Republic caused to lots of critical aspects. This policy, particularly, increased the dependence of the Republic to the center on the provision of people with grain and food-stuffs. As irrigation-land-reclamation developed highly at the result of cotton monopoly in the republic the land began to lose its fertility, deficiency of water resources increased year by year. As well as, at the result of reclaiming virgin lands, organization of many districts, state farms specialized to cotton growing, enlarging cotton fields and irrigating them improperly, not using water resources incorrectly there occurred serious problems like water deficiency. The irrigation structures built to develop cotton growing together with its positive sides caused some critic aspects. Improper use of water resources, irrigating large sowing areas incorrectly, reclamation of virgin lands, organization of districts and state farms in those areas, at last, caused to water deficiency as well as to the Aral tragedy.

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CRIMINALS AMONG THE WOMEN IN THE FERGHANA VALLEY AND ITS NEGATIVE EFFECTS

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ABSTRACT

In this article is discussed process of criminals among the women in the Ferghana valley and its negative effects by the media sources and materials of juridical documents as well.

KEY WORDS: Ferghana valley, women, nationality, upbringing, morality, ethics, Gender, result, offence.

1. INTRODUCTION

Nowadays, in the world, the attention to women is changing radically. After all, the value, respect and admiration of women that ensure the continuity of each nation and ethnicity is the basis for the continuity of generations. In the ancient East, education and education are seen as a factor in which human morality and spirituality are inseparable. Therefore, when Eastern thinkers say, “The knowledge that is not brought up is the sword in the hands of the immoral,” it is easy to understand how education and education are an integral link. Looking back over three thousand years of the history of the Uzbek people, we can see that its spiritual and moral upbringing plays an important role in the life of our ancestors, in the human development. Understanding the importance of spiritual and moral education in human development, our mothers and grandmothers have assumed the responsibility of raising children more than men. Consequently, the mother gives birth not only to the followers of the nation and nation, but also to the intellectual, physical, moral, and spiritual development of the child, whitening the child to white and doing good deeds [1].

2. METHODS

In fact, at first glance, the issue of gender equality for our women, who have taken up the difficult task of raising children, is of global importance, and is reflected in the UN documents, including the 2015 Resolution 70. In order to organize systematic work on the accelerated implementation of the UN Sustainable Development Goals, the country sets out the national goals and objectives for sustainable development in Uzbekistan until 2030. According to her, the 5th goal of Uzbekistan’s sustainable development until 2030 is to promote gender equality and empower all women. This includes economic, social, legal and other measures. All state bodies and organizations, institutions, as well as public organizations of state significance are responsible for the fulfillment of these tasks. A coordinating Council on the implementation of national goals and objectives in the field of sustainable development until 2030 has been established. As a result of the reforms being implemented in this area, there have been some changes in our national legislation as well. In particular, the law “On guarantees of equal rights and opportunities for women and men” was adopted on September 2, 2011.

3. RESULTS AND DICSUSSIONS

Adopted by the Senate on August 17, 2019, approved by the Senate on August 23, 2019, President of the Republic of Uzbekistan Sh. Mirziyoev Article 3 of the Law of the Republic of Uzbekistan “On Guarantees of Equal Rights and Opportunities for Women and Men”, approved by Mirziyoev on September 2, 2019, N-562, applies the following basic terms:

- Provisional special measures to ensure the implementation of gender policy - legal, organizational and institutional measures undertaken...
by the state authorities to address specific goals of eliminating gender inequality, ensuring true or justified gender equality;
- Gender - the social aspect of the relationship between women and men in all spheres of public life and activity, including in the areas of politics, economics, law, ideology and culture, education and science;
- Gender Statistics - Gender statistics and relationships in all spheres of social and political life reflect the relevant status of persons of different sexes in all spheres of social and political life, including information on the state of women and men in all areas of public life and activity, illuminating part;
- Gender and legal expertise - analysis of regulatory legal acts and their projects for compliance with the principles of ensuring equal rights and opportunities for women and men;
- gender discrimination - any discrimination, exclusion or restriction, including discrimination on the basis of marital status, pregnancy, family obligations, as well as sexual abuse in all areas of public life and activities aimed at non-recognition of the rights and freedoms of women and men; pay different kinds of work, equal work and qualifications;
- Indirect discrimination by gender - creating situations, situations or criteria that make same-sex persons more disadvantaged than other sexes, including the promotion of gender inequality through the media, education, culture, and negative consequences for a particular gender - establishing conditions or requirements [2].

Today, despite numerous reforms to prevent gender discrimination in the promotion of gender equality between men and women, there is some gender discrimination in society. For example, in some families males and females have a misunderstanding of each other, or as a result of the abuse of alcoholic men by the caregivers of the same family, family disputes result in the loss of a healthy atmosphere in conflict families. And the loss of a healthy environment in the family is more likely to have a negative impact on the upbringing of the younger generation than on its positive effects. Particularly, the negative effects of such negative influences in adolescents, such as insecurity, indifference and indifference, have a significant impact on the development of state and society. That is why a new system has been created to improve the spiritual atmosphere in families and to facilitate the work of public organizations.

In particular, at the expanded joint session of the Council of Chambers of the Oliy Majlis on “Prevention of Offenses and the Fight Against Crime”, there was a critical review of the increase in female crime in the Andijan region, particularly in the Fergana valley. Despite some efforts to prevent crime and crime committed by women in the region, ensure the stability of the social and spiritual atmosphere in families, as well as identify and address problems, there is a growing incidence of women crime and crime. In particular, in the first seven months of this year, women committed 286 crimes. In addition, early births and family rewards increased over the same period last year, with 52 women committing suicide. Most of the crimes mentioned were fraud, forgery of documents, illegal entry abroad, embezzlement or embezzlement of state property, theft of other people's property, and intentional bodily injury. In Jalakuduk district, one murders require the prevention of and possible crime in the region. In this regard, 83 families of crime-prone and 102 women returned from the penitentiary institutions, 315 families of offenders, as well as 462 disadvantaged families are working individually. In turn, these women were taken under special control and provided social assistance to involve 50 women who had previously been convicted and returned from penitentiary institutions for socially useful work and to provide psychosocial support. In particular, 11 of these women have been employed on a regular basis, 13 of them have been assisted by regional authorities and civil society institutions in providing their own health, and 15 have received financial assistance, 12 have received legal advice, and 9 have received psychological counseling.

Together with women’s committees and partner organizations operating in the Andijan region, 120,807 homes were included in the total number of 21,230 problems identified in these apartments. Of the revealed problems 13,959 were solved in the same place, 2,998 were solved at the district level and 49 at the regional level [3].

In Andizhan region, a number of effective measures have been taken to prevent female crime, including the social and legal protection of the “Charity to you” women and their families working in the region to provide social, legal and psychological support to women deported from foreign countries. The center’s activities are further improved. Currently, such centers are opened in Andizhan, Asaka, Balikchi, Izboskan, Altinkul, Shahrikhon, Kurgantepa districts.

In the Fergana region, which is the only pearl of the Ferghana Valley, there has been an increase in female crime, with 608 crimes committed by 668 women over the past 10 months of 2019. Most of the crimes were committed in Baghdad, Dangara, Buaida and Yozyovon districts. This has led to a
dramatic increase in the number of female crimes in these areas [4].

Increasing crime in women in Fergana region, along with theft and robbery, as well as the increasing number of sexual harassments outlawed in modern laws that are not quite compatible with our nationality, should not be neglected by the general public. However, a woman from the Besharik district of Fergana region, a woman suspected of forcing her underage girl (14) to have sex with a man for her own humanistic purpose, mediated three men for having sex with their daughter. A forensic examination revealed that the girl’s 17- to 18-week-old fetus was aborted artificially. Senate Speaker Tanzila Norboeva, commenting on the crimes of women who have committed this abnormal form of humanity by exploiting their underage children for abusive purposes, called on the public to address the relevant authorities when they became aware of such cases. In turn, Tanzila Norboeva acknowledged that there was no effective communication between preventive inspectors, civil self-government bodies, schools and the Youth Union to prevent such cases [5].

4. CONCLUSION

In conclusion, it is necessary to pay special attention to ensuring the welfare of the society and the people in the country, and above all, to the welfare of the population. In spite of numerous practical reforms in this regard, increased crime among women has had a negative impact on the development of our society and our state.

In particular, in the Ferghana Valley, which is the most populous country in Uzbekistan, there are several factors contributing to increased crime among women:

- the high unemployment rate among working women, which has led to the worsening of their social status;
- The deterioration of social conditions in families contributes to the increasing crime of theft among women;
- One of the crimes among women is the increasing number of motivated women to engage in illegal sexual intercourse with other people for the sake of making a living.

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STATE POLICY OF THE REPUBLIC OF UZBEKISTAN TO ENSURE THE INTERNATIONAL CONSENT AND TOLERANCE IN SOCIETY

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ABSTRACT

The article, based on official documents, reveals the state policy in the field of interethnic relations in Uzbekistan at the present stage. The experience of Uzbekistan in maintaining stability in interethnic relations and friendship between representatives of more than 130 peoples living in the republic is shown, and a conclusion is drawn about the Uzbek model of interethnic harmony. It is also emphasized that in historically multi-ethnic Uzbekistan, tolerance is the basis of mutual understanding and harmony in society, the most important condition for finding compromises and overcoming conflicts. The article describes the problems and specific tasks in the field of interethnic relations that arose in the context of globalization, integration and migration.

KEY WORDS: Interethnic harmony, tolerance, the Uzbek model of interethnic harmony, interethnic tolerance, confrontation in information and cyberspace, educating young people in the spirit of tolerance.

INTRODUCTION

The state policy of Uzbekistan in the field of national relations (ethno politics) in the broad sense is an integral part and a specific aspect of politics in a multinational, multi-ethnic state. Being included in the general context of politics, it has a certain independence, and as such is capable of both accelerating and inhibiting the course of social, and therefore national development. Ethno politics in the narrow sense is a strategic course of government structures, political parties, social movements of multi-ethnic states in the national question, which is embodied in legislative acts, special programs and other relevant documents.

Democratic ethno politics is based on the following principles:

- Equal rights of ethnic groups,
- Interethnic, interethnic harmony and tolerance,
- The prohibition of any form of undemocratic solution to the national question (nationalism, racism, fascism, apartheid, segregation, deportation, forced migration, forced assimilation, etc.),
- Supporting minority rights to preserve ethnic identity and identity.

- A combination of ethno-national and national interests,

METHODS

As noted in the International Convention on the Elimination of All Forms of Racial Discrimination: “any theory of superiority based on racial difference is scientifically false, moral is reprehensible, and social is unfair and dangerous and that there can be no excuse for racial discrimination, where whatever: neither in theory nor in practice”[1].

Equality, consolidation, interaction, joint prosperity of all ethnic groups - these are the basic principles of ethno politics of the Republic of Uzbekistan. The Constitution and other legislative acts of the Republic (the Law “On the State Language”, the Law “On Citizenship” and etc.) [2]. Also state: all citizens of the Republic of Uzbekistan, regardless of nationality, are equal; the state guarantees the legitimate rights and interests of all nationalities, discrimination of any nationality is prohibited, as well as actions aimed at undermining the cohesion of nationalities.

The Decree of the President of the Republic of Uzbekistan “On Approving the Concept of the State Policy of the Republic of Uzbekistan in the Field of
Interethnic Relations” emphasizes that “in modern conditions, representatives of more than 130 nations and nationalities living in the country, using the same rights and opportunities provided by the Constitution and laws of the Republic of Uzbekistan, work fruitfully in various sectors of the economy and social sphere, fields of science and culture, making a worthy contribution to the prosperity of the motherland and strengthening it independently minute, increasing the credibility and image of the country in the international arena” [3].

The state opposes national chauvinism and nationalism: each nation has the right to freely apply and develop its own language and culture, and has the right to preserve its own beliefs, traditions, rites, and customs. The Universal Declaration of Human Rights noted that “the recognition of the dignity inherent in all members of the human family, and their equal and inalienable rights, is the basis of freedom, justice and universal peace”, “it is necessary to promote the development of friendly relations between peoples” [4].

RESULTS AND DISCUSSIONS

Large-scale social reforms in modern Uzbekistan requires the main thing - interested support, active the participation of the whole people, each citizen, regardless of their ethnicity, confessional, social tender unreliability. In this regard the problem of people’s interest in their present and future. Most researchers and experts stability and favorable dynamics of the development of interethnic relations in our country are noted.

In realizing the ethno-cultural needs and interests of society, two areas that are organically linked to each other can be defined as the main and decisive goal. One of these areas is based on the strengthening of ethnic traditions, customs, the development of the national language, the ethnic characteristics of spirituality that serve today’s national development, and the formation of an ethnically oriented worldview and thinking. The second direction is the emphasis on universal values and the achievement of world progress. Based on these ideas, principles and directions, it is necessary to educate young people and develop an understanding of her own interests and aspirations.

Uzbekistan compares favorably with other countries by stability in interethnic relations. With the acquisition of independence in Uzbekistan, a completely new socio-political situation arose in the development of interethnic relations. To ensure stability in our multinational country in difficult conditions of transition to market relations, the formation of a new Uzbek state, it was necessary from the very beginning to pursue a weighted national policy that does not infringe on the rights and interests of numerous ethnic minorities in the republic.

Uzbekistan is traditionally multinational, multi-ethnic. The history of the interaction of various ethnic groups dates back to ancient times. For centuries, Tajiks, Kazakhs, Kyrgyz, Turkmens, Karakalpaks, Bukhara Jews, Persians, Arabs, Uighurs, Dungans and etc. live next to the Uzbeks. For a long time, ethnic processes and interethnic relations in Uzbekistan are characterized by openness, friendliness, and good neighborliness. Most of the indigenous ethnic groups in the region are united by a deep household, linguistic, religious, ethno cultural affinity.

Ethnic mosaicism and cultural diversity are considered as the richest progressive potential, an influential lever for the construction of a new democratic rule of law and civil society, social justice and interethnic harmony. An analysis of the development trends of interethnic relations over 28 years of independence testifies to our country’s own path in interethnic relations. It is based on centuries-old traditions of tolerance, mutual understanding, friendly and respectful attitude to other nations. Uzbekistan is proud that in the historical memory of our people and the state there are no shameful pages of manifestation of anti-Semitism, racism and other forms of arrogant and disrespectful attitude to another nation, to another people.

Own state policy in the field of interethnic relations, a civilized and humanistic approach to solving interethnic problems has led to stability in interethnic relations, favorably distinguishing Uzbekistan from other states. In today's conditions of independence, we can definitely conclude that the Uzbek model of interethnic harmony is being implemented in the republic.

At a new stage in the development of Uzbekistan, the President of the Republic of Uzbekistan, Sh. Mirziyoyev adopted a number of documents that further strengthen interethnic stability in the country.

Adoption and implementation of the Strategy of action in five priority areas of the development of the Republic of Uzbekistan in 2017-2021, the very time in which we live, the need to implement a balanced, mutually beneficial and constructive foreign policy aimed at strengthening the independence and sovereignty of the state, creating a security belt around the country, stability and good neighborliness, as well as further strengthening in the minds of the population, especially youth, humanistic values, maintaining and supporting an atmosphere of mutual agreement, respect and mutual assistance between different nationalities require raising to a new level of work carried out in this area.
The decree of the President of the Republic of Uzbekistan Sh. Mirziyoyev “On measures to further improve interethnic relations and friendly relations with foreign countries” [5] is aimed at further ensuring stability, peace and harmony in society, strengthening the feeling of belonging to a large, united multinational family, comprehensive in the minds of citizens support and further development of the activity of national cultural centers and friendship societies, expansion of cultural and educational ties with foreign countries. The creation of the Committee on Interethnic Relations and Friendly Relations with Foreign Countries under the Cabinet of Ministers of the Republic of Uzbekistan on the basis of the Republican International Cultural Center and the Council of Friendship Societies and Cultural and Educational Relations with Foreign Countries of Uzbekistan, with 138 national and cultural centers, 34 friendship societies with foreign countries.

The Committee is actively involved in solving the problems of the consistent implementation of state policy in the field of ensuring interethnic harmony and tolerance in society, a broad explanation of peace-loving policies, achieved milestones and successes in all areas of the country's life, strengthening friendship with the international community, including with the diaspora of compatriots abroad.

The Committee implements measures to stimulate, coordinate and promote social initiatives aimed at establishing the principles of interethnic harmony, friendship and cohesion, and developing a culture of interethnic relations. He provides practical and methodological assistance to national cultural centers, supports their initiatives, takes measures to strengthen the consciousness of citizens, regardless of their nationality, race and religious convictions, of a sense of belonging to a single large multinational family, implementation of the principle “Uzbekistan is our common home”.

Particular attention is paid to educating young people in the spirit of tolerance and tolerance, respect for national and universal values, preservation and development of history, culture, national traditions and customs. It will also contribute to the formation of a harmonious and spiritually developed young generation, which has ideological immunity against the dogmas of nationalism and extremism, devoted to the ideas of independence and protection, promoting the national interests of Uzbekistan.

The Committee is entrusted with the function of representing the interests of national cultural centers and friendship societies in state bodies, coordinating their activities, assisting in the preservation and development of original national traditions, customs and rituals, and strengthening friendly, equal and mutually beneficial relations with foreign countries [6].

At a new stage in the development of Uzbekistan, stability in interethnic relations, tolerant relations between representatives of 130 nationalities become the basis for the implementation of economic, political, spiritual and cultural reforms in Uzbek society. Uzbekistan, as a country of historical tolerance and cultural pluralism, is characterized by these key properties:

- All ethnic and religious groups inhabiting Uzbekistan clearly recognize it as their homeland; full agreement, understanding and mutual respect of representatives of various national and religious groups;
- Regardless of their nationality, citizens of Uzbekistan are convinced that tolerance and interethnic harmony are one of the factors of stability and civil peace in Uzbekistan;
- The advancement of Uzbekistan to a democratic rule of law and a socially oriented market economy is directly related to the further development and harmonization of interethnic and interfaith relations, mutually beneficial partnership of the titular nation as a leader and national communities and communities, their social solidarity;
- Conditions for legal equality, economic and social freedom of all citizens, regardless of their nationality;
- The titular nation, together with other ethnic groups, constitutes a powerful potential for stimulating and accelerating the processes of formation of public consciousness, and the established interethnic relations are a guarantee of peace and stability worthy of the life of every family;
- Interethnic and interfaith harmony in Uzbekistan in close combination with the growth of national identity and spiritual revival of the Uzbek and other peoples is a powerful impetus for the renewal of society and its democratization.

It is safe to say that in Uzbekistan there is multi-ethnic democracy, that is, an independent, sovereign political system, which is characterized by democratic decision-making institutions with more than a hundred ethnic groups.

At the same time, in the context of ongoing globalization and the transformation of international and regional relations, the intensification of economic, political, national, religious and other contradictions in the world, the growing confrontation in information and cyberspace, a number of topical issues remain in the field of interethnic relations and the further development of friendly relations with foreign countries requiring their solution, including:

- a further increase in the level of interaction between state bodies and organizations, local executive bodies with civil society institutions in the field of interethnic relations and the further development of friendly relations with foreign countries;
- establishing local systems and mechanisms for monitoring the state of interethnic relations as the basis for organizing activities for early warning and prevention of possible disagreements and conflict situations in society;
- Implementation of a set of educational, informational, cultural and educational measures to foster a culture of interethnic communication, study the history and traditions of the people of Uzbekistan;
- Improvement of work on training, retraining and advanced training of specialists of state bodies.

CONCLUSION

The historical experience of tolerance and interethnic harmony in Uzbekistan deserves attention, can be studied and used in the practical activities of other states. Meanwhile, globalization, integration, migration processes put new problems and challenges on the agenda. The main directions of the state policy of the Republic of Uzbekistan in the field of interethnic relations at the present stage is:

- improving the mechanisms of interaction between state bodies and organizations, local executive authorities with civil society institutions, including the media, in the implementation of the state policy of the Republic of Uzbekistan in the field of interethnic relations and the further development of friendly relations with foreign countries;
- the creation of additional socio-economic conditions for the effective implementation of the state policy of the Republic of Uzbekistan in the field of interethnic relations and the further development of friendly relations with foreign countries, the preservation and development of the language, culture, traditions and customs of representatives of various nations and nationalities living in the republic;
- further strengthening the feeling of a multinational large family in society, friendship and harmony between representatives of various nations and nationalities living in the republic, educating the young generation in the spirit of love and devotion to the Motherland, ensuring the equal rights of citizens, and preventing infringement of their constitutional rights and freedoms; development of international cooperation and friendly relations with foreign countries in order to strengthen international relations, protect the rights, freedoms and legitimate interests of citizens in the country and abroad, support compatriots and close cooperation with the Uzbek diasporas abroad, increase the authority and image of Uzbekistan on the world arena[7];
- Improving the legal framework of interethnic relations, taking into account the priorities of state and social development of the Republic of Uzbekistan advanced foreign experience.

REFERENCES

6. There given.
JOB PREFERENCES OF BS CRIMINOLOGY GRADUATES BATCH 2018-2019 OF NUEVA ECIJA UNIVERSITY OF SCIENCE AND TECHNOLOGY

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Nueva Ecija,
Philippines

ABSTRACT

The study determined the job preferences of BS Criminology Graduates Batch 2018-2019 of NEUST for job placement or hiring. Data were gathered from 70 respondents randomly selected. Using a descriptive survey method, the study revealed that, most preferred agencies are Philippine National Police, Bureau of Jail Management and Penology and Bureau of Fire Protection. The two least opted are to become Criminology Instructor and the field of Industrial Security. The respondents identified their selves as highly competent in patrolling but competent to the rest of the areas such as traffic directions and control, and community relations. However, respondents were least competent in terms of performing front desk assignment, report writing and teaching.

KEY WORDS: Job Preference, BS Criminology, Senior Students, NEUST

INTRODUCTION

Choosing the right profession in accordance to college degree obtained is very essential. Also, correct staffing is a significant element for an organization to achieve its very purpose of existence. Hence, graduates of Bachelor of Science in Criminology should be working to agencies they rightfully belong based on the mandates of Republic Act 11131 also known as The Philippine Criminology Profession Act of 2018.

The Nueva Ecija University of Science and Technology (NEUST) offered Bachelor of Science in Criminology in the year 2008. Four years after, it started producing graduates and eventually becoming Registered Criminologist until today. The Republic Act 11131 provides that registered criminologist refers to a natural person who holds a valid certificate of registration and an updated professional identification card as criminologist issued by the Board (Professional Regulatory Board for Criminologists) and the Commission (Professional Regulation Commission). In essence, a Registered Criminologist can venture to any of the following: a) as a law enforcement administrator, executive, adviser, consultant, officer, investigator, agent or employee in any private or government agencies performing law enforcement and quasi-police functions at the Philippine National Police (PNP), the National Bureau of Investigation (NBI), the Philippine Drug Enforcement Agency (PDEA), the Bureau of Fire Protection (BFP), the Bureau of Jail Management and Penology (BJMP), the Provincial Jail, the Bureau of Corrections (BUCOR), the Probation and Parole Administration (PPA), the Bureau of Internal Revenue (BIR), the Bureau of Customs (BoC), the Bangko Sentral ng Pilipinas (BSP), other government and private banks, the Philippine Postal Corporation (PPC), the Sea and Air Marshalls, the VIP Security, Airport and Seaport Police, the National Intelligence Coordinating Agency (NICA), the Intelligence Service of the Armed Forces of the Philippines (ISAFP), and other intelligence service or agencies of the government exercising similar functions; b) teach as professor, instructor or teacher in any university, college or school duly recognized by the government; c) As a technician, examiner/criminalist, or specialist; d) as a correctional administrator, executive, supervisor, or officer in any rehabilitation, correctional, and penal institution or facility, and in any community-based corrections, and rehabilitation agencies and/or programs; e) as a counsellor, consultant, adviser or researcher in any government or private agency on any aspect of criminological research or project involving the causes of crime, children in conflict with the law, treatment of offenders, police operations, law enforcement administration, scientific criminal investigation or public safety and national security administration; and f) As a private investigator, administrator, consultant or agent, or
detective in any private security and investigation agency organized under the laws of the Philippines. Further, relative to teaching, Section 11 of Republic Act No. 8981 provides that, All subjects for licensure examinations shall be taught by persons who are holders of valid certificates of registration and valid professional licenses of the profession and who comply with the other requirements of the CHED (Commission on Higher Education). Hence, passing the licensure examination or becoming a Registered Criminologist is the very key for NEUST criminology graduates be employed in their preferred work aforementioned.

The NEUST is a consistent producer of Registered Criminologists every Criminologists Licensure Examination (CLE). Evidently, survey of Local Pulse (2018) showed that the NEUST College of Criminology ranked 6th out of 624 colleges and universities offering criminology course all over the country. It entails that the University maintains standard of education that equips criminology graduates with appropriate competence that is beneficial on their employment. In fact, Aydinan (2019) on his study Employment Array of Bachelor of Science in Criminology Graduates in Nueva Ecija University of Science and Technology found out that most of the Criminology graduates are now employed in different law enforcement agencies such as the PNP, BJMP, and BFP - the tri-bureau.

Personnel competence is important in every workplace. According to Business Dictionary (06 January 2020), competence indicates sufficiency of knowledge and skills that enable someone to act in a wide variety of situations. Similarly, competency is a series of knowledge, abilities, skills, experiences and behaviors, which leads to the effective performance of individual’s activities Maaleki (2018). Also, Weinert (1999), competence pertains to “cognitive fitness for a particular class of tasks, a roughly specialized system of abilities, proficiencies, or individual dispositions to learn something successfully, to do something successfully, or to reach a specific goal. This can be applied to an individual, a group of individuals, or an institution.” Study of Abas and Ombra (2016) showed that one critical measure of success in workplaces is an employee’s ability to use competently the knowledge, skills and values that match the needs of his job, satisfy the demands of his employer, and contribute to the overall achievement of institutional goals. In connection thereto, in consideration of the job opportunities of Registered Criminologists which are mostly public service, it therefore demands not only a license to practice profession but also competence or work competence. Hence, in accordance to the Commission on Higher Education Memorandum Order No. 5, s. 2018, criminology graduates must be competent to the following areas for their future employment: a) traffic direction and control; b) patrolling; c) guarding; d) front desk assignment; e) criminal investigation; f) report writing; g) community relations; h) observance of protocol; i) firefighting; j) jail assignment; and k) teaching in Criminology.

Work preference plays a significant role towards the attainment of individual or organization’s success. As cited by Gilbert, Sohi, and McEachern (2008), work preferences are the outcomes individuals desire from their engagement in paid work (Konrad et al., 2000). They influence career choice decisions (Brown, 1996) and are critical determinants of job attitudes and work motivation (Brenner et al., 1988). Likewise, job preference may cause satisfaction to personnel or employees. According to Voordt (2004), employee satisfaction refers to the degree to which the working environment meets the wishes and the needs of the employees. Hence, working to a suitable, desired or preferred occupation makes personnel productive, effective, and efficient.

The researcher believes that understanding the job preferences and competencies of graduates may somehow help administrators and faculty of any educational institutions in their decision-making towards improvement of certain program. Hence, the present study tried to assess the job preferences and competencies of the Criminology Graduates of NEUST College of Criminology Batch 2019-2020 in order to identify their job interests and provide possible improvement on the College’ academic programs geared towards work-related competency development for the benefit of the present and future criminology students. In doing so, it could prepare NEUST Criminology students or graduates become more capable and confident to performing their desired future line of work.

Specifically, this study attempted to answer the following:

1. What are the Job Preferences of NEUST Bachelor of Science in Criminology Graduates Batch 2018-2019?
2. How may the level of competence of NEUST Bachelor of Science in Criminology Graduates Batch 2018-2019 be described?

**METHODOLOGY**

The study is descriptive in nature since it aims to study the present condition/situation as it would like to know ‘what is’ or as exists about the senior students. As cited by Eduardo (2018), descriptive method is a purposive process of gathering, analyzing, classifying, and tabulating data about prevailing conditions, practices, beliefs, process es, trends and cause-effect relationships and then making adequate and accurate interpretation about such data with or without the aid of the
statistical methods. Respondents were identified through total sampling. Data were gathered from 70 NEUST Bachelor of Science in Criminology Graduates Batch 2018-2019 through researcher-prepared questionnaire validated by an expert supported by an interview upon attainment of the consent of the Dean of the College. Reliability of the research instrument was determined through Cronbach’s alpha. The research was conduct within the School Year 2019-2020. The analysis of data utilized tallying, frequency counts, Average Weighted Mean (AWM) and ranking.

RESULTS and DISCUSSIONS

1. Job Preferences of BS Criminology Graduates Batch of 2019-2020

Table 1 shows that Philippine National Police ranked 1st, Bureau of Jail Management ad Penology, ranked 2nd and Bureau of Fire Protection ranked 3rd as preferred agencies of BS Criminology graduates Batch of 2019-2020 to work for with a frequency of 47, 25, and 19, respectively. However, the last option (ranked 7) is to join the Industrial Security with a frequency of 7.

<table>
<thead>
<tr>
<th>Agency/Institution</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippine National Police (PNP)</td>
<td>47</td>
<td>1</td>
</tr>
<tr>
<td>Bureau of Jail Management and Penology (BJMP)</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Bureau of Fire Protection (BFP)</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Armed Forces of the Philippines (AFP)</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Security (IS)</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Criminology Instructor (CI)</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Philippine Coast Guard (PCG)</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Others</td>
<td>None Specified</td>
<td></td>
</tr>
</tbody>
</table>

It implies that most of the respondents are settled in joining the uniform force within the umbrella of the Department of Interior and Local Government which is expected. Further, interview revealed that most of the respondents have chosen the tri-bureau (PNP, BJMP and BFP) due to its civilian character concept consisting of lesser military training unlike the Armed Forces of the Philippines. Also, respondents were motivated to join the uniform service due to salary factor which is greater as compared to being a college instructor or working in the security industry.

2. Level of Competence of BS Criminology Graduates Batch 2019-2020

Table 2 shows that BS Criminology Batch 2019-2020 are highly competent in Patrolling with a mean of 4.02 (ranked 1st) which implies that they perform beyond the standards set by the agency or institution whom they perform patrolling. Also, they are competent on all work activities but Traffic Direction and Control and Community Relations ranked 2nd and 3rd with means of 3.46 and 3.44, respectively. The last (10th) rank is Teaching with a mean of 2.64 but still described as competent. It implies that BS Criminology Graduates Batch 2019-2020 perform within the standards required by different agencies or institution. It is noteworthy that Teaching got the lowest mean which is expected considering the nature of the work which requires in-depth trainings concerning teaching methodologies, strategies and the like.
Table 2. Level of Competence of BS Criminology Graduates Batch 2019-2020

<table>
<thead>
<tr>
<th>Work Activities</th>
<th>Average Weighted Mean</th>
<th>Descriptive Equivalent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teaching</td>
<td>2.64</td>
<td>Competent</td>
<td>10</td>
</tr>
<tr>
<td>2. Front Desk Assignment</td>
<td>2.88</td>
<td>Competent</td>
<td>9.5</td>
</tr>
<tr>
<td>3. Report Writing</td>
<td>2.88</td>
<td>Competent</td>
<td>9.5</td>
</tr>
<tr>
<td>4. Criminal Investigation</td>
<td>2.96</td>
<td>Competent</td>
<td>8</td>
</tr>
<tr>
<td>5. Fire-fighting</td>
<td>3.00</td>
<td>Competent</td>
<td>7</td>
</tr>
<tr>
<td>6. Observance of Protocol</td>
<td>3.06</td>
<td>Competent</td>
<td>6</td>
</tr>
<tr>
<td>7. Jail Assignment</td>
<td>3.14</td>
<td>Competent</td>
<td>5</td>
</tr>
<tr>
<td>8. Guarding</td>
<td>3.18</td>
<td>Competent</td>
<td>4</td>
</tr>
<tr>
<td>9. Community Relations</td>
<td>3.44</td>
<td>Competent</td>
<td>3</td>
</tr>
<tr>
<td>10. Traffic Direction and Control</td>
<td>3.46</td>
<td>Competent</td>
<td>2</td>
</tr>
<tr>
<td>11. Patrolling</td>
<td>4.02</td>
<td>Highly Competent</td>
<td>1</td>
</tr>
</tbody>
</table>

Overall Mean: 3.15 Competent

Scale:
- Highly Competent: 3.51 - 4.00
- Competent: 2.51 - 3.50
- Moderately Competent: 1.51 - 2.50
- Not Competent: 1.00 - 1.50

The overall mean is 3.15 described as Competent. It signifies that the BS Criminology Graduates Batch 2019-2020 are capable of discharging their duties within the established standards needed by the aforesaid agencies or institutions. Further, it implies that they have learned the appropriate competence, skills, techniques, and the like their instructors or faculty have taught during their academic years.

CONCLUSION

In the light of the findings, the researcher concluded that the Philippine National Police, Bureau of Jail Management and Penology, and Bureau of Fire Protection greatly attracts or influences criminology students or graduates. Also, the College of Criminology of Nueva Ecija University of Science and Technology imbibe to their students the needed competence the tri-bureau requires. Similarly, the faculty of the College observe the appropriate level and content of instruction provided by relative CHED Memorandum order.

REFERENCES


IMPLEMENTING PROCESS-ORIENTED APPROACH IN TEACHING “WRITING TO B1” LEVEL STUDENTS

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English Teacher of Department of English Phonetics, Andijan State University, Andijan, Uzbekistan

ABSTRACT
The present study aimed at identifying difficulties of the B1 level students in the academic writing process and find out effective solution to teaching writing through implementing process-oriented approach. Implementing process/modeling approach based on process-oriented approach in classes was used to widen the students’ writing skills, enhance their achievement and understanding in writing section.

KEY WORDS: process, skill, writing, materials, video, equipment, topic, activity, learner, lesson, questionnaire.

INTRODUCTION
Productive skills are considered difficult linguistic skills than perceptive. However, writing, one of the productive skills is the most challenge to acquire. In order to produce from little massages to a piece of work writer needs to pass some time to generating ideas and put it into paper. That process is called Writing process.

The academic writing process is the main part of writing skill that appears motivation to learn Writing. The learners carry out various activities in each stage of writing and this leads to facilitate their compositions. Furthermore, writing process helps them learn to write and it is considered as developmental process that helps students to write as professional authors do; for instance, choosing their own topics and titles, generating (brainstorming, making a list, drawing a mind map) ideas, and writing from their own experiences or observations.

The main reason of choosing this topic is that most students have difficulties and misunderstandings while producing a piece of writing. When we observed several classes, we felt sure that the student did not enjoy writing; because, they found it difficult to write and preferred discussion to writing. In this article, we present a large number of approaches that used in writing process and a variety of activities to utilize a guide book for the students and future investigators who might have difficulties in finding interesting ideas and essential sources that designing lesson plan and organizing activities for writing paragraphs in the writing process is the best solution for the problem.

MATERIALS AND METHODS
The researchers are wished to give teaching materials and equipment taken from different sources to use for the study. The selected materials include pre and post questionnaires, tests, videos, handouts, rating scales. The students are presented video, which is taken the internet to involve students to the topic of the lesson. Each lesson plan includes different handouts are organized at least seven for each lesson selected from books and the sources of the internet that contain game, a range of activities for brainstorming, mind-mapping, prewriting, revising and drills.

Before and after the experiment study students are given pre and post tests for comparing the results of background knowledge and new one. In order to evaluate written assignments the researcher uses the way, which is for grading compositions. As the equipment of the study, we plan to utilize a computer, speakers, a flash driver, and classroom tools during the classes.

The purpose of utilizing the questionnaires is to determine the reason lack of interest in learning writing and finding out the difficulties of the students on producing a piece of writing. We intended to make the students write a short composition during the
writing process in the class instead of giving them as home assignment.

After choosing process/modeling approach among other approach of the writing process, we decided to carry out our experiment work of the research paper at Andijan State University. We had started to observe the freshmen of group № 101 in order to identify their level, the methods which their teacher used in class from January 15, 2020.

List of Group № 101

<table>
<thead>
<tr>
<th>№</th>
<th>Student’s name</th>
<th>Native language</th>
<th>Group</th>
<th>Age</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Xolboyev Hafiza</td>
<td>Uzbek</td>
<td>101</td>
<td>20</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>2</td>
<td>Qurbonova Madina</td>
<td>Uzbek</td>
<td>101</td>
<td>20</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>3</td>
<td>Sulaymanova Sarvinoz</td>
<td>Tajik</td>
<td>101</td>
<td>22</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>4</td>
<td>A’zamova Moxiro’y</td>
<td>Uzbek</td>
<td>101</td>
<td>19</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>5</td>
<td>Matyoqubova Na’fosat</td>
<td>Uzbek</td>
<td>101</td>
<td>21</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>6</td>
<td>Keldibekova Go’zal</td>
<td>Uzbek</td>
<td>101</td>
<td>24</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>7</td>
<td>Izzatullayeva Sevara</td>
<td>Uzbek</td>
<td>101</td>
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</tr>
<tr>
<td>8</td>
<td>Axmatov Jamshid</td>
<td>Uzbek</td>
<td>101</td>
<td>22</td>
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<tr>
<td>9</td>
<td>Rejapov Abdushukur</td>
<td>Uzbek</td>
<td>101</td>
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<tr>
<td>10</td>
<td>Xalimbekov Saidakbar</td>
<td>Uzbek</td>
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<td>21</td>
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<tr>
<td>11</td>
<td>Ergashev Sardor</td>
<td>Uzbek</td>
<td>101</td>
<td>21</td>
<td>Mrs. Zulfiya</td>
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<tr>
<td>12</td>
<td>Qodirov Ma’ruf</td>
<td>Uzbek</td>
<td>101</td>
<td>20</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>13</td>
<td>Fayzullayeva Zulfiya</td>
<td>Uzbek</td>
<td>101</td>
<td>20</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>14</td>
<td>Sherjanova Mardona</td>
<td>Kazakh</td>
<td>101</td>
<td>19</td>
<td>Mrs. Zulfiya</td>
</tr>
<tr>
<td>15</td>
<td>Xazratova Hilola</td>
<td>Tajik</td>
<td>101</td>
<td>20</td>
<td>Mrs. Zulfiya</td>
</tr>
</tbody>
</table>
DISCUSSIONS AND RESULTS

The present article focuses on identifying the difficulties of the B1 level students which they face on producing a piece of work in the classes and determining the efficiency of the process/modeling approach by applying with a range of activities in teaching writing to B1 level students. During the research, the investigators observed the classes of both groups, which they wished to choose as subjects of her study work. We prepared questions for those groups concerning the reason of learning Writing, the difficulties that they faced while writing a short composition and their views in acquiring “Writing” for making easy.

The result of questionnaire shows that 29 percent of the students come across the problem with the topic that given by teachers. They pointed out that some teachers would not fully explain the topic to the students. As a result, they would not understand the topic and think many things to write. In addition, thinking too much, about what to write made them have a headache. Besides, 33 out of 55 students stated that lack of teacher’s attention to the works of the students happened in the class. For instance, some of the teachers do not give feedback to the students concerning their mistakes in their written work. As a result, students think that teacher do not check their written work; 33 percent of them have problem which are related to Vocabulary that they have lack of stock of words and synonyms of words in the second language; a large number of students (67 percent) have difficulties with the concentration when collecting or giving the ideas; The above diagram illustrates the percentage of preferable activities for the students After the researcher took questionnaire, she made up the list of the topics for the need assessments of the participants in order to design lesson plan.

CONCLUSION

The research has been intended to determine the difficulties of the B1 level students who faced during writing classes in the university and discover appropriate solution to teaching writing by applying the process/modeling approach. In order to implement this approach the researchers studied several scientists’ approaches that used in teaching writing. During the investigating, several approaches the researches felt sure that those approaches connected each other and had comparable features and structures. For instance, the ways of teaching of the integrated approach and process/modeling approach are similar that train the learners by incorporating several skills. The researchers decided to experiment process/modeling approach which suggested by Professor D.A. Adeyemi at the University of South Africa; because his approach seemed the best solution to the problem which the students faced while they were writing a piece of work. As the researcher found out various difficulties of the students by organizing questionnaire and reflected the data in this paper, she made up lesson plans on the basis of questionnaire and the process/modelling approach. Concluding all the points, the researchers recommend to the teachers that process/modeling approach is
effective for the students (B1) those who begin learning to write.

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PSYCHOLINGUISTIC FEATURES OF TEACHING GERMEN

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ANNOTATION
The study of verbal behavior in teaching German language with the complex of methods of different sciences is the up-to-date task of scientific knowledge. The study of the ability to teach German languages is conducted with the help of psycholinguistic methods on the basis of contracted forms of communication, considering individual characteristics of speakers as well as level of their language culture, semantics and elements of their speech. The carried empirical study allows to say that there is the dependence of individual characteristics, motivation of communication, communicative skills of participants of communication and presence of various semantic and syntactic types of contracted forms in the dialogue.

KEY WORDS: individual characteristics of person, speech analyses, contracted form of communication, foreign language.

INTRODUCTION
Foreign language teachers especially, German today come across difficulties of not only the choice of materials, methods and means of education, but also the difficulties of much higher importance, namely the choice of approach to learning. For many centuries, teachers and methodologists have been looking for the best effective approach to teaching foreign languages, but have not yet come to consensus. Today, the trend to re-orient science to the study of psychic nature of human intellectual activity. It means "language person" becomes an integral object of a number of sciences. In particular, the use of methods of psychology and linguistics gives a new look to a communicating personality, the verbal behavior in the communication process, broadens the scope of only linguistic or just psychological approaches to learning foreign languages. The study of personal behavior and activity using combined methods of empirical approaches of the various sciences, is an up-to-date task of modern scientific knowledge and social practice. The effectiveness of communication, to a certain extent, is the result of a combination of communication motives (realized in the motivation to succeed and the motivation of affiliation), direction of communication and communicative skills that characterize a person in the process of communication.

MATERIALS AND METHODS
The importance of such psycholinguistic studies of teaching German language of the individual is determined by several factors: first, the increasing role of the individual in modern society, and hence the increasing emphasis on its characteristics, reflected in various activities and determining their effectiveness (in particular, in the activities on a foreign language); second, the realization of the importance of communication.

It is clear that, teaching any language is a unique individual speech performance of personality and depends on its various characteristics, so it makes the study of personality, expressed in the language and through the language, i.e. language personality with all the linguistic and psychological characteristics, especially important. The more so that the interest to the study of language personality is increasing in psychology and linguistics. The importance of such psycholinguistic studies of speech behavior of the individual is determined by several factors: first, the increasing role of the individual in modern society, and hence the increasing emphasis on its characteristics, reflected in various activities and determining their effectiveness (in particular, in the activities on a foreign language); second, the realization of the importance of communication, which is basic for the development of psychological processes, states and properties of the...
person, special and necessary way of life of the individual and society as a whole; and third, the absence of thorough studies of the relationship of structure, elements and characteristics of speech as means of communication, in particular the speech utterances, and the speaker's individual characteristics. The more so that the interest to the study of language personality is increasing in psychology and linguistics.

**DISCUSSION**

The study of characteristics of teaching deutch has for a long time been the subject of special studies of psychologists. In verbal communication one can find all the psychological patterns of communication, that explains the great research interest. Empirical studies show that the main kind of verbal behavior that reflects the personality characteristics of the speaker, as well as the specific features of an individual as a representative of national culture and language, is the spoken language in a dialogue form. However, the study of real dialogue structures with the features and elements of the speaker's speech, and not only semantics, practically does not occur in the current psychological studies.

**RESULT**

Studying to teach German language one can see a large number of such contracted (short) forms that can be described as reactive monorheme statements that, in fact, are contracted in form brief verbal responses of the conversation participants, in comparison to full theme statements of the classical type. However, from the point of view of the semantic fullness such statements are sufficient. The short-form statement from the point of view of the semantic fullness is sufficient because it contains the necessary information for the interlocutor. Dialogue phrases are related as "stimulus - response", which means that each source phrase presupposes the second response phrase and etc., and the structure and semantics of the first initiating phrase determines the form and content of the second one [2;24]. Analyses of the structure of question-answer dialogues of spoken English suggests that all responses are positioned statements of communication units, which form one complex with previous interrogative sentences that explains the interest to the analysis of not only reactive, but also interrogative, stimulating phrases in the functional and semantic aspects.

In psychology monorhemes have not been studied as they were considered to be purely linguistic units. Taking into account the fact that the speech activity is directly related to the individual and the personal characteristics of the person involved in the process of interpersonal communication (dialogue), we consider monorheme as a specific form of verbal behavior in the interpersonal communication.

**CONCLUSION**

In conclusion, since teaching German language and its psycholinguistic features is a purely personal speech performance, so far it is naturally associated with the personal, national, social characteristics of the conversation participants. Any act of speech should be related to the personally of the speaker, or, in other words, any dialogue contributes to actualization of personal characteristics of the participants, its personality, its psychological characteristics are shown in the dialogue determine its subject and development. According to S.A. Agapova, personal characteristics of the participants of the speech (dialogue) communication represent "combination of individual, social, national, cultural and human characteristics" [2, 192].

**REFERENCES**

MUSEUM IN THE CHANGING WORLD

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ABSTRACT
Museums are cultural institutions in which heritage is preserved and promoted. Several types of museums are in existence these include: Museum of Antiquities — in which are housed ancient pieces of furniture or objects of art such as Sculptures, paintings, ceramics, textiles and other crafts. Others include public record office, War, Maritime, Architecture, Local and Indigenous Technologies, Science and Engineering and National history Museums. This work therefore is an attempt towards the exploration of museum. In the changing world, the prospects and challenges and how this can be repositioned in the interest of reaping the gains of museum for the good of all and sundry globally.

INTRODUCTION
It appears that the notion for collecting is rooted in human nature. In its most basic form, a museum has come to mean a collection of something. According to ICOM (The International Council of Museums) in Gheorghilas, Dumbraveanu, Tudoricu and Cracium (2017), "museums have mainly been perceived as cultural institutions in which heritage is being preserved and promoted. However, their roles and functions have significantly changed in the last 50 years alongside with their definition, mostly in accordance with the realities of the global museum community."

Several types of museums are in existence, these include: museum of Antiquities - in which are housed ancient pieces of furniture or objects of art such as sculptures, paintings, ceramics, textiles and other crafts.

Others include public record office museum serving as collection centre for famous document; War museum containing relics of national wars; Maritime museum for maritime history; museum for architecture, with types, structures and styles of building, and so on, Museum for Local/Indigenous Technologies, Science museum - with objects depicting history of science and engineering as well as, Natural history museum.

It has therefore become fashionable to talk about museum development in the world of today. This is because of the renewed vibrancy of museum in economic advancement of communities and the regeneration of cultural heritage of communities. Museums are therefore buildings, which preserves and exhibits objects illustrating antiquities or relics of the past specimens of scientific interest (Lasebikan, 1991). Contrary to most believes many people consider museums have the singular role of providing attractive and stimulating displays in halls or galleries. Although such displays are often enjoyed by the public quite often many people do not even appreciate what lessons are to be derived from such displays. Apart from the fact that museum is primarily aimed at enlightening and educating the public, it still performs function of ensuring the regeneration of cultural heritage of communities. "The need for culture is very important, and the cultural products have become increasingly diverse, marking the change from an era when production drove consumption to the consumer society where consumption drives production" (Richards in Gheorghilas, Dumbraveanu, Tudoricu and Cracium, 2017).

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exploration of museum in the changing, the prospects and challenges, and how this can be repositioned in the interest of reaping the gains of museum for the good of all and sundry.

**TOWARDS A CONCEPTUAL CLARIFICATION**

The English 'museum' comes from the Latin word, and is pluralized as "museums" (or rarely, 'musea"). It is originally from the Greek word Mouseion, which denotes a place or temple dedicated to the Muses (the patron divinities in Greek mythology of the arts) (Findlen, 1989).

A museum according to the Merrain-Webster online dictionary is a place where collections of things of artistic, scientific or historic interest are set out for display. A more comprehensive definition of a museum is provided by the International Council of Museums. The rCOM, (2012) defines a museum as:

*A non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates exhibits the tangible and intangible heritage of humanity and its environment for the purpose of education, study and enjoyment.*

A museum is therefore seen as an institution that cares for a collection of artefacts and other objects of scientific, artistic, cultural or historical importance and make them available for public viewing through exhibits that may be permanent or temporary (Tony, 1995).

**HISTORY OF MUSEUM DEVELOPMENT**

Museums have a lot long history, springing from what may be an innate human desire to collect and interpret and having discernible origins in large collection built up by individuals and groups before the modern era. Strictly speaking, the word museum has classical origins. In its Greek form, mouseion, it meant "seat of the Muses" and designated a philosophical institution or a place of contemplation. Use of the Latin derivation, museum, appears to have been restricted in Roman times mainly to places of philosophical discussion. Thus the great Museum at Alexandria, founded by Ptolemy I Soter early in the 3rd century BC, with its college of scholars and its library, was more a prototype university than an institution to preserve and interpret material aspects of the heritage.

It has become fashionable to talk about museum development in the world of today. This is because of the renewed vibrancy of museum in economic advancement of communities and the regeneration of cultural heritage of communities. Museums are therefore buildings which preserve and exhibits objects illustrating antiquities or relics of the pastor specimens of scientific interest (Lasebikan, 1991). There are also several types of museum. These include: museum Antiquities-in which are housed ancient pieces of furniture or objects of art such as sculptures, paintings, ceramics, textiles and other crafts. Public record office museum serving as collection center for famous documents; War museum containing relics of national wars; Maritime museum for maritime history; museum for architecture, with types, structures and styles of building etc., Museum for Local and Indigenous Technologies, Science Museum, with objects depicting history of science and engineering and Natural History Museum. Contrary to most believes many people consider museums have the singular role of providing attractive and stimulating displays in halls or galleries. Although such displays are often enjoyed by the public quite often many people do not even appreciate what lessons are to be derived from such displays. Apart from the fact that museum is primarily aimed at enlightening and educating the public, it still performs function of ensuring the regeneration of cultural heritage of communities. This work therefore is an attempt towards the exploration of museum in the changing, the prospects and challenges, and how this can be repositioned in the interest of reaping the gains of museum for the good of all and sundry.

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The word museum was revived in 15th-century Europe to describe the collection of Lorenzo de Medici in Florence but the term conveyed the concept of comprehensiveness, published in 1656, rather than denoting a building. By the 17th century museum was being used in Europe to describe collections of curiosities. Ole Worms collection in Copenhagen was so called, and in England visitors to John Tradescants collection in Lambeth (now a London borough) called the array there a museum; the catalogue of this collections, published in 1656, was titled Museum Tradescantianum. In 1677 the collection, having become the property of Elias Ashmole, was transferred to the University of Oxford. A building was constructed to receive it, and this, soon after being opened to the public in 1683, became known as the Ashmole, was transferred to the University of Oxford. A building was constructed to receive it and this, soon after being opened to the public in 1683, became known as the Ashmolean Museum. Although there is some ambivalence in the use of museum in the legislation, drafted in 1753, founding the British Museum, nevertheless the idea of an institution called a museum and established to preserve and display a collection to the public was well established in the 18th century. Indeed, Dennis Diderot outlined a detailed scheme for a national museum for France in the ninth volume of his Encyclopedie, published in 1765.

Use of the word museum during the 19th and most of the 20th century denoted a building housing cultural material to which the public had access. Later, as museums continued to respond to the societies that created them, the emphasis on the building itself became less dominant. Open-air museums, comprising a series of buildings preserved as objects, and ecomuseums, involving the interpretation of all aspects of an outdoor environment, provide examples of this. In addition, so-called virtual museums exist in electronic form on the Internet. Although virtual museums provide interesting opportunities for and bring certain benefits to existing museums, they remain dependent upon the collection, preservation, and interpretation of material things by the real museum. In Nigeria however, because of the great diversity of people and culture, Nigeria has distinguished herself over the centuries in the field of arts. Nigerian versatility in art is so great that it is generally felt that all African nations should view Nigeria as the principal trustee of the most durable fruits of black artistic genius. It is not precisely known when the first works of Nigerian art reached the outside world, but in 1897, following a British punitive expedition to Benin. Over 2,000 Benin bronzes and ivories were shipped to England and later dispersed all over Europe and America.

The oldest sculptures found in Nigeria were from the Southern Zaria and Benue areas of central Nigeria. They consist of terra cotta figures and figurines made by a people who achieved high degree of cultural sophistication. These sculptures, together with other cultural elements, have been named the Nok Culture. Evidence shows the Nok people had knowledge of iron smelting and adorned themselves with tin and stone beads, earrings, nose rings and bracelets (Swann, 2001). The Nok Culture is dated between 500 B.C. and 200 A.D. The next known phase of Nigerian cultural evolution was Igbo-Ukwu bronze casting. Found in the small village of Igbo-Ukwu, near Awka, the casts date from the 9th Century A.D. They first came to light in 1938 and consist of staff heads, crowns, breastplates, pendants, ornaments, anklets, wristlets and chains. About the same time the Igbo-Ukwu people were casting bronze, the ancient Ife people were also producing works in bronze, copper, and terracotta. In the first quarter of this Century, Ife works caused a great stir among world art critics and historians who were unaccustomed to such naturalism in African art. The best known Nigerian artworks are the Benin Antiquities. Legend recounts how the Benin people learned the art of bronze casting from Ile-Jife around 1400 A.D. Oba Oguntu, the sixth King of Benin, is credited with having encouraged this art in Benin.
Nigeria's cultural heritage is woven from threads of history and diversity, legend and conquest. Tourists visiting the country will gain insights to a glorious past as well as a promising future, set amid the natural beauty of this diverse country. From rain forests in the south, broad savanna woodlands in the center to a semi-desert region in the north, Nigeria offers a remarkable range of physical beauty in her land and hospitality of her people, ready to be enjoyed by the tourist fortunate enough to choose this land of ancient empires as their travel destination.

The richness and diversity of the Nigeria culture is a manifestation of the socio-cultural differences of the over 250 ethnic groups that inhabit the land for ages. The country offers a wide variety of attractions in museum and traditional ways of life preserved in local customs; rich and varied handicrafts and other colourful products depicting or illustrative of native arts and lifestyle, and the authentic unsophisticated but friendly attitude of many in the Nigerian population. This provides investment opportunities as people come from far and near to pay and watch the country's cultural collection (Babian, 2006). The International Museum Day is a celebration that is held each year on or about 18th May each year was established in 1977 to provide awareness on the importance of museum in human development and the need to keep with this development.

MUSEUM IN THE CHANGING WORLD: PROSPECTS AND CHALLENGES

In the days of old, museum was not considered seriously in terms of its contribution to the development of the communities. However day, the role of museums has changed over time as the collection, preservation and sharing artifacts, arts, antiquities, and other cultural symbolism, become central in supporting the development of communities. Museums help in creating community identity and bringing different community groups together for the creation of new venues and civic spaces, and resource for developing the skills and confidence of members of those communities.

Museums provide the basis upon which social issues are addressed, with all sections of the community having a voice in the social issues affecting them. Through programmes like internships, apprenticeships and work placements they are proving to be a valuable resource for the development of basic and specialist job skills (Ptolemy, 2008).

Our museums have reach and resonance. By working with local partners museums engage communities with their cultural heritage right across the UK. Museums are spaces in which identities are understood, formed and shared. They provide a stimulating public space in which people can come together and be inspired (NMDC, 2010).

Cultural institutions provide the glue that binds communities together. Culture attracts people to a place, just as much as good schools, housing or transport and creates an environment in which other industries, goods and services can grow (ibid, 2006). However, this does not go without saying that, some challenges have over the years militated against museum development. The earlier efforts are made to overcome these challenges, the better since museum offers new inspirations in the world today.

PROSPECT OF MUSEUM DEVELOPMENT

Museums and Education is critical for development. Education that is devoid of the cultures of the people in the society is empty and incomplete. One of the fundamental objectives of the museum is to educate, and it is only the museum that has the capacity and the ability to impart cultural education effectively as it houses the tools and materials for doing so in its collections. In modern society, the museums enrich the educational process by exposing children and indeed the public to their history in a positive way; they assist our future generations to understand and appreciate their history and culture and take pride in the achievements of their fore bearers. Museums possess materials and information that can and should be used in enriching and improving the school curriculum in various disciplines.

Museums and the Promotion of Unity

For a people to live in peace and happiness there must be unity. Museums do promote unity in the society by using their resources to ensure understanding and appreciation for the various groups and cultures that exist in that society. Peace is essential for happiness and joy in the family, in the community, in the society, in the nation and in the world. Our world is troubled in many ways today and peace is threatened so often because people do not understand their neighbours. Conflict resolution and reconciliation are essential elements for the attainment of sustainable peace and unity. Museums should use their collections in promoting a better understanding of the collective heritage of the people of Guyana, which will have the effect of fostering the commonality of those things that unite the nation and its people. They can, through their programmes and activities, reconcile the various
interests in the society for the collective good of the nation; they can use their unique positions to reach the conscience of the nation and to foster dialogue, and they can become rallying points for the country in ensuring that peace is enthroned. On a broader perspective, museums can promote cultural diplomacy that will engender greater understanding between peoples and nations. A properly packaged cultural diplomacy programme will promote the best of Guyana to the wider world and foster a free flow of knowledge and a wholesome exchange of cultural materials and ideas with other nations of the world. This programme will also create a sense of pride and purpose among the people of Guyana, who will better appreciate the fact that they too have a contribution to make to encourage peace, unity and understanding in the communities of the larger world.

Museum and Tourism

In the developed countries, museums are providing the prime function of offering enjoyable and rewarding stimulation for individual minds in their hours of freedom from their daily chores. It is not surprising that such museums in Europe and America now make millions of Euros and dollars yearly either through admission charges or and sales of books, pamphlets, paintings, casts and other souvenirs.

In many developed countries today, the excessive growth of cities with their supermarkets, skyscrapers and network of roads and cars and almost complete disappearance of nature reserves for wild life have lowered the opportunities for observation and exploration in nature, all of which is now confined to natural history museums and zoos. The very rich and diversified fauna and flora and other natural history resources in tropical Africa provide readily available materials for exhibition in our museums. The impact of this to tourism which is an important service-offer to the outside world is then obvious.

Museum and Cultural Heritage

Museums are spaces in which identities are understood, formed and shared. They provide a stimulating public space in which people can come together and be inspired (NMDC, 2010). Cultural institutions provide the glue that binds communities together. Culture attracts people to a place, just as much as good schools, housing or transport and creates an environment in which other industries, goods and services can grow (NMDC, 2006). It is obvious that, the World is changing faster than ever; new technology delivers new ideas, gigabytes of information. Again, we live in a world where our culture is faced with rapid changes, museums allows us to obtain a perspective on these changes by being able to engage with our past. Museums are therefore important in the continuous quest to wield cultural exchange that unites geo and socio-political history, appreciation of cultural diversities embedded in our history. This allows us a window into the lives of Nigerians, how they have started and where they are heading to. Using the past to build the future, museums ensure they are the intergenerational guardians of the world's heritage and create an ongoing link to the past. Museums, therefore, enable us to discover our diverse heritage and help us to know who we are and what brings us together, in a changing world.

Museums and the development of the local economy

Culture is at the heart of public places and museums can help raise the profile and quality of life in urban centers. The museum sector is support a large workforce. There are many museums around the world employing many who otherwise would have been jobless.

THE CHALLENGES OF MUSEUM DEVELOPMENT IN NIGERIA

Stating that museums face unique challenges related to their social, political and ecological environment is but stating the obvious. This is the case of Nigeria that has sickened her museums through plundering or looting by the west. This has cost the country her dignity as a nation. Examples of African arts, or antiquities that have been looted include: the Royal Messenger, which represent the envoy who carried the emblem of authority from Ife to Benin when a new king was installed; the Nok Head; the Esie Soapstones; and Jenne Terra-Cotta among others. The effects of this has been revealed by one of the Nigerian finest poets, Chinweizu Ibekwe through a poem titled "Ancestral Anger" (edited by me) as could be seen thus:

Oh scavenger dogs from white heartlands  
The dog of the crescent sword  
The dog of the militant cross  
Listen, Listen, listen and listen!  
They have gang to rape Africa!  
Black Lady Forced to wear  
A white shoe of shame  
Ah, this land  
The father to the Tablet of Moses,
And grand uncle to the Cross of Jesus,
And grandfather to the Crescent of Mohammed,
And great-grandfather to the Red Star of Marx!
They have bleached their black identity,
Scraping it off like shit from their fine skin;
They have scrambled from their black identity
Like a man fleeing his menacing shadows!
Oh Black, hear and heed!
The final war begins,
To drive white predators from our land,
Across hot sands and burning seas,
If you let them,
With greed in their hearts,
Will dash forth to exterminate you
They will caress your ears with lovely lies,
Numb your minds with white religions
Distract your eyes with flashing wonders,
If you let them,
They will drug you with delusions,
Mad, suicidal illusions,
With fairy-tales of good,
White heavens, with lies about white benevolence;
If you let them,
They will use your fears against you
Your lack of daring against you
Your respectability against you
Your sweet reasonableness against you
Woe to them who forget their history
And drug their hearts with false memories.

The Way Forward
As we approach the millennium, museums must show leadership in the promotion of the heritage of the nation. As custodians of the cultural soul of the nation, they must have the capacity to broker peace, unity and understanding in times of conflict and disorder and they must speak out when there is fear and danger in the land. They must tackle current problems in society, be they the problems of drugs, street children, prostitution, or lack of appreciation by the citizens in their involvement in the preservation of the heritage and the cultural property.

In our society today, our museums must promote exhibitions that are topical and challenging; they must broaden their scope and not restrict themselves solely to objects and materials in their collections. Museums must be proactive in their approach to the execution of their mandate and it is important that they clearly explain their vision and mission, which will guide them in all that they do. In a changing world, museums have become very important institutions that are respected and valued. As we approach the turn of the century, museums must be innovative, people-oriented, community-minded, programme-oriented, professionally solid with well-trained personnel and above all, children-friendly, for them to play a major role in the development African society in the world in the 21st century (Edward, et al. 2007).

What is important is for the educational planners to work closely with museum experts on how the educational resources that are available in the museum can be integrated into the curriculum and the learning process at all levels. On its part, the museum should develop educational programmes for the various tiers or the school system, namely, primary schools, secondary schools, teacher training colleges, technical colleges and universities, among others. A properly articulated museum education programme will become an essential component in the overall educational system of society. Educational visits to the museums should be developed and encouraged to cater for all interest groups, and as we approach the turn of the century, it has become very necessary and important for our museums to ensure that they become children-friendly. We can no longer continue to ignore the role our children can and should play in our society as they too are part of our collective humanity. Our children should be given a voice in the museums; special educational and cultural programmes should be developed for them and they should be allowed to be involved in discussing programmes that are made for them, as they do have ideas that will enhance such programmes if given a chance to contribute and speak out.

Above all, we must not be afraid of being blacks. Let us conduct our struggles ‘on the high planes of dignity, as we respect and uphold our cultural heritage. This, as Azikiwe (1937), has it:

Africans are capable of achieving their place in the sun.
provided that they discard the spirit of individualism
which has so far prevented social cohesion. It cannot be
doubted that one reason why Africans seem destined to
serve other races for ever is because they have no sense
of oneness . . . Are Africans not doomed to
extermination from the face of the earth because they
are self-centred and self-satisfied and selfish? Do
Africans not deserve extirpation because they have
proved their incapacity to carry on and to disseminate the
torch of civilization which their ancestors handed to
them in the dim past? ... Black men and
women, when will you cease to drift along the way which leads to the extermination of the black race?

CONCLUSION

In conclusion the practical history and material evidence of the human race, activity and the natural world would have been shrouded in obscurity if not for museums and their zeal to meet the challenges of a changing world, in terms of cultural regeneration. New technology, increasing unstable climate, rapid changes in cultures and lifestyles, there is urgent need for our museums to meet up with these challenges and that of security and protection of our cultural heritage. Although, there are challenges but the new inspirations are overwhelmingly intriguing. This is also a heartfelt call on the various levels of government, communities, corporate organizations and individuals to attempt to patronize works of arts especially the antiquities and also join hands in the fight to protect, secure and preserve our valuable arts, artifacts and cultural displays; for these are our cultural heritage and symbols of Nigerian identity. It is by so doing that Nigerians and indeed Africans would have a place on the surface of the earth.

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SIGNIFICANCE OF COORDINATING THE FIGHT AGAINST TERRORISM IN THE CIRCLE OF INTERNATIONAL ORGANIZATIONS

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ANNOTATION
This article talks about terrorism and its essence. They also discussed measures to combat it, the role and importance of international organizations. It talks about international cooperation within international organizations in the fight against international terrorism.

KEYWORDS: terrorism, international organizations, international cooperation, international antiterrorist actions, operational functions, United Nations General Assembly.

DISCUSSION
Today international terrorism is a serious threat to world peace and stability. There is no denying that terrorist attacks in various parts of the world were carried out on a systematic basis rather than for common purposes. It is well known that terrorist acts in many countries are organized by representatives of terrorist organizations, and these actions have been manifested in the attempt to brutally violate human values. It is important to coordinate international counterterrorism efforts within international organizations, as terrorist criminal groups seek to execute their activities around the world.

It is worth noting that the process of coordinating the efforts of states within international organizations has several advantages in carrying out international anti-terrorism activities. These advantages are reflected in the functions of international organizations. A. Saidov and IA Lukashuk write that "international organizations are created by states to achieve certain interests and serve as a joint body of the State party to realize these common interests. Therefore, the task of the international organization is to identify the interconnected aspects of the interests of each Member, and to develop a common will, a common will in determining the respective tasks, as well as the ways and means to address them" [3].

Scientists are distinguished by the regulatory, control and operational functions of international organizations [1]. At present, the rational use of the functions of international organizations in combating international terrorism and coordinating the efforts of states through the mechanism of international organizations is one of the most important factors determining the effectiveness of international terrorism. Indeed, as Vostroukhov acknowledged: “Given the increasing danger of international terrorism and its globalization, we believe it is advisable to establish global anti-terrorist forces under the auspices of the United Nations. Not only does this prevent international terrorists from achieving a military victory, it also prevents countries involved in antiterrorist operations from falling victim to geopolitical games” [5].

The Declaration on Measures to End International Terrorism, adopted by the United Nations General Assembly, states: "International law, the Charter of the United Nations and other international conventions in the field of the prevention and suppression of all forms of international terrorism" There is a need for further strengthening of international cooperation between
An important area of coordination of states' cooperation in the fight against international terrorism within international organizations is effective implementation of regulatory functions. Sources have acknowledged that the regulatory function of international organizations is of great importance. It involves the adoption of decisions that determine the goals, principles, and rules of conduct of those Member States. Decisions are made in accordance with the internal law of international organizations. Indeed, the regulatory function of international organizations is reflected in the adoption of international legal instruments by the international organization within its mandate. The oversight function of some experts also includes the adoption of regulatory documents by international organizations that constitute their internal rights. The regulatory function also includes consultation by international organizations to make recommendations to their Member States [6].

Influencing the content of international relations through the adoption of international instruments is an important mandate of international organizations. This authority is granted to international organizations as a subject of international law. The decision-making authority of international organizations is at the heart of the coordination process of states in the fight against international terrorism. The role of international organizations in the development of global anti-terrorist policies is clearly reflected in the decisions of the Security Council. The importance of the fight against terrorism within the UN is determined by the fact that, along with the convention mechanism, decisions of the Security Council are becoming more and more important. In the face of the extremely dynamic, ever-evolving and rapidly evolving international terrorism landscape, the Security Council’s decisions to respond quickly to threats to peace and security are an important factor in addressing global challenges such as terrorism. The Security Council’s capacity to maintain international peace is demonstrated by the fact that the special body for the fight against international terrorism, which is already in demand, was established immediately after the tragic events of September 11, 2001, in accordance with Security Council Resolution 1373 [8]. According to the resolution, states, organizations and individuals should refrain from financially supporting international terrorism and legally enforce these obligations by states to criminalize terrorist acts and to impose strict sanctions on them. A special body - the international anti-terrorism committee was established. The Committee exercises its oversight by receiving and analyzing reports from the States and submits its final conclusions to the Security Council. The Committee has become a focal point for the fight against terrorism within the UN. Indeed, M. Tillyabaev noted: "The adoption of Security Council Resolution 1373 requires every country to take specific measures in the field of combating international terrorism" [9].

It should be noted that the content of the documents adopted by international organizations in the process of coordination of international cooperation by international organizations through the regulatory function is not the same. Some decisions of international organizations are not binding. However, non-binding decisions are also important in strengthening peace and order. They are more politically important and provide the basis for the adoption of legally binding documents. On December 9, 1994, the United Nations General Assembly adopted the Declaration on the Prevention of International Terrorism. As AR Rakhmanov acknowledged: “Despite the existing difficulties, new normative and legal acts are being adopted to improve the legislation on the fight against terrorism and to assist in this struggle. The Declaration on Measures for the Suppression of International Terrorism of December 9, 1994 contains international conventions on various aspects of the fight against international terrorism, including the obligations of states and appropriate measures [7].

Another important function of international organizations is the control function. As part of the oversight function of international organizations, it is reflected in a set of actions to identify and evaluate the relevant situation to ensure compliance with a particular norm. I. Lukashuk and A. Saidov write: "The function of the international organization is to control the conduct of the member in accordance with the decisions of the State. To this end, international organizations have the right to collect and analyze relevant information, to discuss it, and to comment on relevant resolutions. In most cases, countries are required to submit regular reports on how their international legal norms and organizations comply with their respective legal documents.

The next function of international organizations is the operational function. The function of international organizations is divided into external and internal functions. The internal function is reflected in a set of organizational measures aimed at maintaining the internal activity of international organizations. Such measures include finance, housing, and salary. External operational functions are reflected in the implementation of external obligations of international organizations in relation to other subjects of international law as established by the regulations. Implementation of these functions is an important factor in determining the effectiveness of international organizations in the fight against
international terrorism. In our view, the external function may be seen by the international organization in imposing sanctions against countries that do not fulfill their international legal obligations. Given the fact that the mechanisms of international law enforcement are mainly embedded by international organizations, the performance of operational functions is inextricably linked to the regulatory function.

The importance of the operational function of international organizations is determined by the fact that this function provides an opportunity to strike international terrorism sources. Today, the urgent task of addressing not only the international terrorism itself, but also its sources, is urgent. The United Nations report on enhancing the role of international peace and security in the fight against terrorism enforces social and political rights, democratic reforms and the rule of law, as well as social unrest. elimination of political factors, combating organized crime, poverty reduction and unemployment. International organizations, including the United Nations, have the potential to implement programs that cover all of these objectives.

It is becoming one of the most important functions of international organizations within the information function. The information function of international organizations is of particular importance in ending the nihilistic approach to international law. The information function of international organizations is included in forums on international relations, seminars, training, implementation of great information programs, and publishing. The importance of the international functions of international organizations in the fight against international terrorism also stems from the fact that terrorism is the most prominent manifestation of terrorism - the deception of young people and the joining of terrorists. As First President IA Karimov pointed out: “The fanatics have come up with ‘pretty’ invitations and have managed to entice some young people. Their parents, at the very least, did not understand the terrible purpose behind this act of our society at large. It was only after the bloody events in Namangan and Tashkent that these forces’ intentions were a struggle for power and it became clear that they were part of an international terrorist movement under the guise of religion. But until the public realizes this, black forces have plunged some of the youth into a state of ignorance and crime that has yet to be shaped [2].

In our view, it is aimed at the elimination of international terrorism, the elimination of bilateral approaches in anti-terrorist cooperation, the intensification of information functions by international organizations, and the promotion of international organizations in the fight against international terrorism, it is necessary to accelerate the implementation of information programs.

In conclusion, the intensification of the work of international organizations in the fight against international terrorism is urgent. It should be noted that international organizations coordinate the cooperation of various countries with their functions. Utilizing the capabilities of international organizations in the fight against international terrorism will provide countries with financial support to tackle international terrorism. Coordination of the international anti-terrorist cooperation within the international organizations means the use of all the functions of international organizations in the fight against international terrorism. These functions include regulatory, oversight, operational and information functions, and each function includes the creation of political, socio-economic and legal conditions necessary for the implementation of key international counterterrorism policies. The main and most important condition of the effectiveness of international counter-terrorism coordination is the harmonious implementation of all above-mentioned functions by international organizations.

REFERENCES

ISLAMOPHOBIA IS A MANIFESTATION OF RELIGIOUS XENOPHOBIA

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ANNOTATION
The article is headlined islamophobia and became one of the current topics. Although islamophobia is one of the realities inherent in the 21st century, it has a unique history. As a term, history dates back to the time when the religion of Islam was revealed, although it was used repeatedly in recent years. As proof of this, the article presents the views and opinions of several scientists and specialists. In the article, the author, together with the past of islamophobia, attempts to analyze and study the features and consequences of the era of globalism. Also among the representatives of the other religion there are specific data on the formation and causes of negative views on the religion of Islam. The author recognized the efforts carried out by the state officials in order to prevent the escalation and spread of islamophobia in some countries. The use of creative products of various authors in the article serves its scientific level.

KEYWORDS: Islamophobia, globalism, Islamic religion, migration processes, immigrant, religious tolerance, religious xenophobia, Hirstian world, Muslims.

DISCUSSION
It is known that the discovery of various innovations and inventions in recent years has led to the penetration of new words and phrases in scientific invasion and everyday life. Islamophobia, which is considered the phenomenon of the 21st century, is also from the sentences. First of all, it is important to describe this concept, to substantiate it scientifically, to understand its essence.

According to the information given in the article "Islamophobia in Europe", the so-called "Islamophobia" was introduced into circulation in 1980 year, and began to be widely used after the events of 11 September 2001. In 1997, however, the British scientific center Runnymede Trust published a report titled "Islamophobia still a challenge for us all"1, which states that it "has become a common reality in every layer of society and media, with feelings of fear and hatred for Islam and Muslims." Islamophobia has a wide coverage of the term, which includes most of the reverence and actions against Islam. It is a set of actions that are said and committed against the teaching, views, acting appearance of the religion of Islam. Also, according to the report cited by the center, "the religion of Islam is a remnant from the West as a civilization, while Muslim culture is interpreted as a religion that is far from news and debate, threatening other cultures, which have become as diverse as they are, and which have become hardened in one place2.

According to another information, the phrase "Islamophobia" is quoted in the essay "East – West in 1922 year" by the orientalist scientist Ethene Dine, in particular, has been preserved since the crusades in history, emphasizing disagreements between the West and the Muslim world3.

It can be seen that although the term Islamophobia appeared in the twentieth century, its manifestation in society is the case of the last 20 years. Experts emphasize that this phobia has arisen after the events of September 11, 2001, and is associated with the terror of the religion of Islam in the US and European countries, while imagining Muslims as violent and aggressive people. In fact, the fact that Islam is a religion of peace is also mentioned in the hadiths in the divine book.

In particular, remember in verse 126 of the Qur'an, the Holy Quran, "Baqara", in which Abraham said, "O My Lord, make this a city of peace, and

1 Islamophobia: A Challenge For Us All (Runnymede Trust) 1997.
provide sustenance for those of its people who believe in Allah and the last day.”

Peace is about the greatness and the fact that Islam is high in its dignity Muhammad (p.b.u.h.) "ask Allah for forgiveness and peace, there is no blessing given to a person after Faith and preference for peace.”

As mentioned above, in Islam, any actions that contradict peace and tranquility are condemned. In fact, Islamophobia is also a religion of Islam and unjustified fear of Muslims, arising from ignorance and appreciation of its teachings and ideas of goodness.

The expert scientist, quoted in an article titled “The historical roots and causes of Western Islamophobia, says that Islamophobia has now become a major threat to the West and the Christian world. Its appearance and formation took a long time. In particular, the works of French sociologist Raymond Aron “inconsistency of Civilizations”, well-known, Islamist and Orientalist scientist Bernard Lewis “clash of cultures” or Samuel Huntington “clash of civilizations” had a great influence on the formation of Islamophobia,” he said.

At the Stockholm International Forum in January 2001, the fight against religious intolerance was promoted, and Islamophobia was also recognized as a form of intolerance, such as xenophobia and anti-Semitism. In may 2002, the Center for control and monitoring of racism and xenophobia in Europe published a “brief report on Islamophobia in Europe after 11 September 2001”. According to him, after the events of this date, information about the Islamic mood and actions is reflected.

In today’s era of globalization, Western society is concerned about the complete Islamization of the world and is concerned about the negative manifestation of Islam religion, its complete disappearance from society.

It is worth noting that the roots of Islamophobia go back to a long history. From the very first days of the appearance of the religion of Islam, his supporters were subjected to various repressions. After a certain time, the Prophet (p.b.u.h.) and it was not even possible that there would be a word about the resistance of Muslims to Islam after they founded their state. Although there was some small disagreement, it did not have serious consequences.

Muhammad (p.b.u.h.) in the civilized period (from 622 year), Christians and Jews did not recognize that Islam was the last monotheistic religion, as well as its teaching, Muhammad (p.b.u.h.), at the time of receiving the revelation, the Jewish tribes of Madinah (Banu Qaynuko, Banu Qurayza and Banu Nadir) did not accept his treatise. In turn, the controversy between Christians and Muslims was classified as a heresy, which came from Christianity as the religion of Islam in his treatise. The famous Johann Damaskin (who died in 787 year) of the Christian psychics, in his treatise "briefly about a hundred heresies”. This description of the religion of Islam by Damaskin in this way shocked the negative opinion about Islam in the Christian world (both Catholic and Orthodox). Also, the spiritual Feodor Abu-kurma, who continued to look after Damaskin at the end of the VIII century, also called Muhammad (p.b.u.h.) was in a negative attitude to the figure and doctrine.

Although one of the largest persecutions in relation to Muslims was observed during the crusades, he did not have an Islamophobic character, the crusaders, who were against them, destroyed both Christians and Jews. The Mongol invasion was also not carried out so against Islam, because even in the Golden Horde, which is now located in the territories of Russia, religion was under state protection.

But by the XVI century, the situation changed after the conquest of the two Muslim states of the kordova caliphate and the Kazan Khanate. After that, in the occupied territories, Islamophobia began to manifest itself in such forms as oppression at the level of state policy, proselytism and the Muslim Assembly. This policy was rightly genocide, which was manifested until the forced deportation and the execution of Muslims. Although the term Islamophobia was not used at that time yet, later Islamophobia became the source of the colonial policy of non-Muslim states and the humiliation and reprimand of religious affiliation.

Today, Islamophobia has reached its peak and is becoming a global phenomenon. After the 1960s, when the countries of Africa and Asia entered the lake of their independence (these countries were much more backward in economic and social terms, after a long colonial policy), in the hope of a prosperous life, people began to settle in large communities in Western countries. As a result, a peculiar attitude was formed between the indigenous population and migrants – owners of other religions and cultures, which today led to the emergence of Islamophobia. Some European countries are manifested in such bans as the construction of mosques in their territories and the wearing of religious clothes in state organizations. Anti-Islamic publications in the press, propaganda in cinema

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4 Abdulaziz Mansur, the author translation and interpretation of the meanings of the Qur'an. - Tashkent: TIU publishing and printing Association, 2012

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and television caused a further escalation of the Islamophobic mood.

It is worth noting that the mass media in some countries lead to an increase in the Islamophobic mood in society and the formation of negative opinions about Muslims. As an example: The media was strongly criticized for the impetus for the escalation of Islamophobia, according to the Encyclopedia of race and Ethnic Studies, which included racial and national studies. According to the results of the analysis conducted in England in 1994-2004 on the example of articles, no Muslim opinion was given in any of the publications, and believers were described from the negative side. Muslims have been shown to be a threat to Western values and security. Also, the use of such expressions in the media as "Islamic terrorism", "Islamic jihad", "Islamic aggression" leads to the formation of negative opinions about Islam.

Analyzing how Islam manifests itself in European countries today, it is enough to look at what has happened in recent years. Wearing the hijab (France), the slaughter of the living on the basis of Sharia (Switzerland), Muhammad (p.b.u.h) cartoon (Denmark), riots in France and Belgium, illegal migration processes, terrains in London and Madrid. Most are the topics that are most often mentioned in the discussions about Islam by foreign media. While they are not openly reflected in the reports, there are cases that link the sensational and security-threatening messages with Islam. Experts argue that media conduct its function on the basis of public opinion, rather than the function of providing objective information.

Also scientists bring five reasons for the formation of Islamophobia:

1. Comparison of Islam with terrorism;
2. The fact that representatives of different levels of government do not accept these or that norms of Sharia (hijob issue);
3. To follow some aspects of Islamic teachings and traditions;
4. Failure to meet some of the requirements of the Muslim community (usually this is not the allocation of land to the construction of mosques);
5. Fact that Muslim countries are not in harmony.

Islamophobia-the main reason why Islam has become the problem of today is the silence of communication, the value and views of Muslims, the principles of worship and an irreverent attitude to their way of life.

One more definition of the subject, "Islamophobia is complex, according to its manifestation, it has different views. Islamophobia in everyday life is manifested as a certain mood, the irrational fear of the broad masses (phobia), the fear of Islam and the negative attitude to it at various levels, the emergence of negative attitudes without sufficient understanding of the specific values and traditions of religion, the way of life of Muslims. In theory, this concept is based on everything from the most important features of Islamophobia, from all aspects of ideological and political currents, to today it has a psychological and social similarity with such militants as racism, xenophobia, anti-Semitism.

That is, they say that the restoration will take place only in the proportions of the Greco-Roman and Jewish-Christian cultures, bypassing the Eastern culture. Later, as the policy of colonialism began to grow in XIX-XX centuries, the culture of colonial countries began to be considered superior to colonial cultures. Since then, most European countries have observed a tendency to put their civilizations above other cultures. In their opinion, they put forward the idea that development, high technology, innovation are the result of this civilization and all should follow it.

In the study of the phenomenon of Islamophobia, it is also revealed that it is an attempt to destabilize the prestige of the religion of Islam, propagated by certain forces to the society, its original noble ideas, neglect of its position as a religion that promotes peace and development. In fact, the religion and culture of Islam have for centuries provided not only representatives of all religions on earth with a sense of social equality, together with a huge cultural and spiritual heritage, which has been serving for the well-being of society so far.

In particular, Islamic spirituality has demonstrated a stable view of social relations in the peaceful coexistence of representatives of all nationalities. On the basis of this, of course, the contribution of the moral standards of Islamic teaching is great, which is the basis of the renewal of Eastern culture. The spiritual and educational awakening of Muslim society manifested the "face" of the entire Islamic culture. The social teaching of the religion of

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8 Magazine Новое дело / Islamophobia as it is. 23.03.2019
Islam is based on ideas of tolerance, and the practice of it belongs to most of the Islamic Ummah.

On the one hand, the various acts of corruption carried out under the name of Islam are increasing and the peoples of the world are faced with its negative consequences. On the other hand, the moral and moral norms of Islamic teaching constitute the most active rejection and opposition bases against false Islam. Islamic teaching is capable of preventing extremism disguised as Islamic expressions and symbols, together with various cultural and social factors. Thus, the formation of an immune response to the actions of extremist organizations in society is one of the important tasks of today.

It is worth noting that the origin of Islamophobia is also caused by various extremist and terrorist attacks, which have become a huge problem of our time. Naturally, in Islamic teaching, it is strongly condemned to harm a person. But extremist and terrorist organizations, proceeding from their merciless goals, try to mislead people on the right path by making an biased, erroneous interpretation of the essence and significance of some ideas and principles of Islamic doctrine. Such flows, which they claim to be “we are reformers” are bringing out those who have “gone astray” who have not joined their views and practices. As a result, various manifestations of Islamophobia (“fear of Islam”, “horror”) are also creating the ground for the adoption of Islam as a “kingdom of evil” and a source of threat in the grassroots population of non-Muslim countries. It is not difficult to understand that such concessions and interpretations threaten social unity in society, can bring about internal fragility.

The Prophet (p.b.u.h.) he says: "Let none of you point at his brother with a gun (do not shoot), because he does not know that Satan can break his hand (that is, by inciting temptation to his soul, he can shoot at the Muslim). As a result, the man will fall into hell."

In the interpretation of Islamophobia, researchers in most cases try to link political Islam with terrorism by comparing it to anti-Semitism. There are some forces continue to represent political Islam as a concept of social corruption and instability, interacting with terrorism. In this respect, this phenomenon is forcibly integrated into society for the realization of certain goals. This phobia is different in three aspects from the others. First of all, Islamophobia is a psychological weapon that is not consciously dressing in people, but is cleverly developed and carefully integrated into society. Secondly, it is a necessary support to certain circles of the world for the realization of their political and material interests, and thirdly, Islamophobia is an ideological weapon used in the implementation of the struggles in the domestic and foreign policy of the country and in general the political, economic and ideological interests of different countries on the world stage – nationally, regionally and globally.

In this regard, according to a report published by The Runnymede Trust Research Center of Great Britain, the following 8 conclusions were made about Islamophobia:

1. Islamic civilization is a culture without news, hardened in one place.
2. Islamic civilization is a separate religion, far from other cultures, their values, views.
3. Islamic civilization—in relation to Western culture, it manifests itself as a backward, wacky, irrational, wild culture.
4. Islamic civilization is a rough, aggressive civilization, in most cases a religion that promotes conflict with terrorism and other cultures.
5. Islam is a political ideology, used for military-political purposes.
6. Muslim-critical views on the West are old and not relevant.
7. The aggressive attitude towards Islam is a reasonable reason for Muslim discrimination.
8. Hostility towards Islam is an ordinary phenomenon.

In most European countries, there are also opinions about the religion of Islam and about muslims as above, but moderate opinions about Islam also make up the majority.

The above is an irrefutable fact that Islam in some states and its negative relations with respect to it are completely unfounded. However, there is inexhaustible material and spiritual evidence that Islamic civilization is the great embodiment of personality culture, which for centuries has been studied not only by muslim scientists, but also by representatives of different religions and nationalities.

In particular, the Islamic scholar A.Zarrinkub’s work titled “Islamic civilization” was quoted as saying that Islamic Civilization turned the lands of Muslim

16 Political Islam is a religious-political ideology and practical activity, it is understood that any issues related to Muslim society and international relations of the state are based on Sharia norms.
countries into a vivid example of world civilization and became known to the world as the highest peak of culture. It was formed for several centuries. Until the Mongol invasion, it was formed and developed as the most prosperous period of life, the principles of tolerance, science and literature, having become the highest peak of human culture, from the maturity of peace, tranquility, moral norms in society. Islamic civilization has made its high contribution to the world like the elin culture. The difference is that the Islamic culture has so far made its significant contribution to the whole world, and its spiritual foundations have not yet lost their attractiveness.20

In this regard, the President of Uzbekistan Mirziyoyev also noted that the religion of holy Islam should be manifested as a religion free of various superstitious thoughts and aggressions. "The religion of Islam encourages us to be kind and peaceful, to preserve the original human qualities. We value our sacred religion as an expression of the incarnation of our age-old values. We strongly condemn those who put our holy religion in a row with violence and bloodshed, and we will never be able to reconcile with them."

Now it is known that the Islamic mood is observed mainly in European countries and the United States. Muslims, whose Europeans, together with the mosques, show themselves in a religious dress in public places, also make a negative impression on them. According to the Pew Research Center, in 2013 Year in 32 countries in Europe there were cases of persecution of Muslims and aggressive relations. In 19 theses, the forced expulsion of Muslims from the country, attacks on women in religious dress, the burning of mosques, the activities of Muslim societies in another 15 countries have been resisted. It has also been subjected to persecution of Europeans who have adopted Islam.

Islamophobia in the German city of Drezden did not take a sharp toll, and by accident there was no movement "Pegida" (Patriotic Europeans Against the Islamisation of the Occident). The first demonstration of the action took place in 2014 year. This movement is characteristic of the city of Drezden, which is almost not spread in Berlin, Dortmund, Cologne. "Pegida" says that Muslims brought all their problems to our country and to our streets. Most of the members of the movement are representatives of the neonassist and right-wing parties.21

It is an irrefutable fact that the migrant Muslims, who are now considered a reality, are moving to the US and European countries. What does their adaptation and integration look like in the receiving state today?

Experts say that most citizens of European countries believe that Muslim adaptation, integration processes should be carried out only by migrants, in fact, these issues are the tasks of both sides, and representatives of the indigenous population say that they must carry out several, including legal, institutional and ideological reforms.

Migrant integration is also regarded as a problem, not a necessary process, as it is now a reality. This approach stems from the idea that the processes of adaptation and integration are related only to culture and religion. But integration is at least three: the implementation of legal, socio-economic and cultural stages on the basis of mutual proportionality creates a basis for a positive result. However, in European society, culture and religion are recognized as important aspects.

Nevertheless, it is necessary to recognize that in European countries a number of measures have been taken to accelerate the process of integration of Muslims, counteract the escalation of the Islamophobic mood among the population. This is manifested in several examples.

- Education. In Luxembourg, the training program of the Ministry of education includes a subject called "moral and religious guidelines" for high-class students, in which the importance of teaching religious values in non-Christian religions and the content of inter-confessional communication is emphasized.

- Inter-confessional communication. In Germany, several dialogues on the religion of Islam have been organized, the purpose of which is to establish mutual relations with Muslims and various organizations and societies. In Great Britain, however, the leaders of the Muslim, Jewish and Christian faith organized three religious forums, the main task of which was to hold conferences, seminars and meetings with national and local politicians.

- Government initiatives. In Rotterdam, the authorities financially support Islamic organizations. Founded in 1990, the structure unites 42 organizations, aimed at protecting the interests of Muslims, eight of them are national centers, and the rest are women and youth organizations. The main task before him is to organize a dialogue of Muslim and non-Muslim confessions.

- Police initiatives. In Britain, it cooperates with non-governmental organizations such as the

21 Sh. Mirziyoyev We will restore the free and prosperous , democratic state of Uzbekistan together. Tashkent: 2016.
22 O.Yarosh. Causes and consequences of Islamophobia in Western Europe. https://islam.in.ua/ru
London police FAIR (Forum Against Islamophobia and Racism, Forum Against Islamophobia and racism). Another of them is "Islamophobia — do not suffer silently". It is a society that was established in 2004 year and fights against relatively criminal and discrimination cases.

According to experts, although the religion of Islam entered most European countries about 70-80 years ago, it does not disappear over time so it is necessary to act on both sides so that Islamophobia does not escalate between representatives of the indigenous population and migrants. The following views expressed by S. Hattington contradict the ideas of tolerance and can also lead to the emergence of Islamophobia in society; "there is such a culture in this part of the Earth, and in the other part, the culture is separated by a creamy line between them so that their interaction does not merge...Undoubtedly, conflict is inevitable because cultures are increasingly building ditches around themselves, each creating an indestructible civilization that cannot be confused with other cultures...

Today the life of Muslims in Europe, European and Muslim values can exist together. Although it is not easy, it is possible to become a Muslim without being English, French, German nationality. Although there are difficult socio-economic issues such as language learning, education, choice of profession as a result of migration processes, they are gradually finding their solution.

In conclusion, it should be noted that Islamophobia, as already mentioned above, is manifested in different manifestations in some parts of the world. Although this term has been used repeatedly in recent years, it has also been observed in our history that the fear of Islam, its lack of understanding of the original ideas of goodness. In fact, we are not mistaken if we say that Islamophobia also occurs as a result of globalization. Therefore, it is also known that the migration processes, the activities of various terrorist organizations, the mercenary forces are trying to undermine the name of the religion of peace and goodness in consideration of work under the guise of Islam. As a result, there are cases of fear of this religion in people who are unaware of the teachings, traditions and values of the Islamic religion. Therefore, we should focus our activities and attention on the priority of the ideas of dialogue and tolerance. No religion incites evil and wrongful acts. On the contrary, kindness embodies the perception of genuine human feelings and positive ideas. It is also appropriate to note that the Islamic religion of heavenly religions is also revealed by Allah as the perfect religion for the people of reason, rather than to criticize and reject the instructions of this religion.

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INTERFERENCE FIELD PRAGMALINGUISTICS

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ANNOTATION
In this article we describe pragmalinguistics in the languages also problems of the formation and preservation of linguistic culture. the establishment of a linguistic norm in accordance with the idea of a “linguistic ideal” - are solved in the process of realization of linguistic forms in speech - acceptance / rejection of the speech of others.

KEYWORDS: functional-semantic category, cognitive-orienting function, set of common language means and forms, speech field of mutual relations.

DISCUSSION
“Respect every person as himselfourselves and treat him as we wish-eat to be treated hightheris nothing.” Confucius

Pragmalinguistics as “one of the plans or aspects of the study of the language that distinguishes and examines the units of the language in relation to that person or persons who use the language” gives reason to more or less systematically represent the quantum-synergetic, that is, living, state of the functional-semantic reciprocity category, in which the biopsychosocial essence of the language finds expression. The functional-semantic category of reciprocity is a system of multilevel language tools that interact when transmitting information about mutual relations, mutual action - an action performed by a pair of basically based on a multitude of entities connected by an object dependence, and coordinated in space and time for a significant goal and method of implementation. The quantum-synergetic nature of this category is detected when the situation of mutual relations is transmitted, when this interaction, manifesting the fundamental properties of a complex (self-regulating) system, gains social significance. The problems of the formation and preservation of linguistic culture — the establishment of a linguistic norm in accordance with the idea of a “linguistic ideal” - are solved in the process of realization of linguistic forms in speech - acceptance / rejection of the speech of others. The cognitively orienting function of the language realized in the process of communication is necessarily accompanied by a contact-setting function that guides the scope of language forms, fixing them according to the situation, as a result of which the differentiation of the corresponding subsystems of language use is established, its style diversity, pragmatic orientation and, in general, national identity. In the process of communication in society, the aberrative possibilities of the linguistic norm are realized: when using linguistic forms, it turns out to be admissible / unacceptable, various possible deviations from the function specified by the language are necessary, and their variation occurs. Tolerance is associated with the possible conflict of situations, the clash of opinions in mutual relations, when patience is required in relation to the opinions of others, but the manifestation of tolerance, however, can violate, and even destroy, dissenting opinions. Tolerance is necessarily marked by a certain mental threshold of mutual relations, a critical point that defines the boundaries of preservation of conflicting parties. We are well able to talk with a person who agrees or almost agrees with us; when we see that our interlocutor does not believe in the truth that we recognize, or even do not understand it, and despite our efforts to explain to him, he continues to disagree with us and, as it seems to us, is stubborn or perverts our words, how easily we lose our calm and get annoyed. The subjective-
Objective nature of pragmatic marking in lexicography does not allow a specific situation to characterize the practice of using language tools. Relying on scientifically based lexicographical fixation, one can only try to determine the current trends in the development of the linguistic culture of communication. We are interested in the specifics of marking the linguistic forms of the text bank we have collected, which have become the source of the linguistic material of the studied category, since the dictionary not only fixes the word’s belonging to the reciprocity field, but marks its nuance in the practice of mutual relations. In our experiment, studies of the semantics of mutual significance are fixed by a dictionary of expressions with a touch of respect, familiar, ironic, humorous, disapproving, dismissive, contemptuous, abusive.

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FUNCTIONAL AND SEMANTIC ASPECTS OF PHARMACEUTICAL TERMS

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ABSTRACT

In this study, an attempt was made to identify the features of the functioning of semantic simplifications using the vocabulary example of English origin. Over time, some borrowed words undergo a process of simplification, i.e. the loss by the word of the previous etymological connections with the prototype as a result of which the word from the motivated name of the object of objective reality becomes an unmotivated name. The analysis includes a description of semantic adaptation, the functioning of these terms in three languages, namely English, Russian and Uzbek to trace the conditionality of the lexicographic representation of the term.

It is established that when the prototype and the borrowed word are correlated, the verb form is lost by the prototype, the borrowed word begins to be used in Uzbek only for the nomination of objects, phenomena and concepts. In the source language, words formed from the verb stem using suffixes are perceived as divisible, compound terms of the structural type “verb suffix”. However, in the receptor language they are formed as indivisible terms. Thus, we investigated the process of de-etymologization with borrowed words from other languages.

KEYWORDS: borrowing, term, etymology, terminology, pharmaceutical vocabulary, historical aspects.
history of the development of medicine, the change of scientific views, the integration and differentiation of disciplines, cultural ties, the influence of the lexical and semantic system of language - all this is reflected in the stylistic heterogeneity of medical terminology [1].

As you know, etymology (from other Greek: "true" + “teaching”) is a section of linguistics that studies the origin of words. It establishes a vocabulary composition from the point of view of the emergence of its various strata, revealing the functional and stylistic characteristics of words, exploring historically determined changes and the updating process (the derivation of old words and the process of the appearance of new ones) [2].

Gradually, a word of foreign origin, thanks to its frequent use in oral and written form, takes root and even a gradual displacement from the linguistic use of those words that were previously used - originally Uzbek words. Its external form takes on a stable form; the word is adapted according to the norms of the receptor language. This process is called - the process of borrowing or entering a word into a new language environment. At this stage, there is still a strong semantic influence of the source language.

The next stage is the assimilation of a foreign language word among the native speakers of one language; folk etymology begins to take effect. When a word of foreign origin is perceived as incomprehensible, they try to fill its empty sound form with the content of a close-sounding and close-in-meaning original word.

The last stage of the penetration of a foreign word into a borrowing language is rooting, when the word is widely used among native speakers of the receiving language and is fully adapted according to the rules of the grammar of this language.

It is included in a full-fledged life: it can grow with cognate words, form abbreviations, and acquire new shades of meanings.

We consider lexical units of English origin, which went into Uzbek reality and there was a break in the semantic connection of the English prototype and the borrowed word.

The borrowed word from the English "Elixir" Russian «Эликсир» prototype has found wide application in Uzbek and has penetrated into various spheres of life: cosmetic use, as a means of protection, technical use. In the Uzbek language two semantic meanings of the word were attached: 1. Contains fluorides for protection against cavities caused by harmful organic acids; 2. A powerful fusion of precious natural ingredients and breakthrough technology.

When borrowing a new word from a foreign language environment into the languages, the main feature is the expression of the characteristic features of the concept. Consider the word drive is an English borrowing from the verb to drive, which has a number of meanings:

Stapler - a machine that inserts staples into sheets of paper, to hold them together. Stapler - a device for fastening sheets of paper using wire brackets [6]. The word stapler is a noun in the Russian language. The stapler English is derived from the verb to staple (staple; staple) and -er suffix. The -er suffix is used to form a noun with the "meaning the executor of the action or the instrument with which the action is performed".

The word "stapler" can actually refer to a number of different devices of varying uses. In addition to joining paper sheets together, staplers can also be used in a surgical setting to join tissue together with surgical

Appearing in English, the names of this product have semantic meaning, for example, Radix - (trademark) is a Latin word for "root", Remedy - (trademark) a medicine or treatment for a disease or injury.

The word “Vein” have functional - semantic meaning: 1) a tube that carries blood to the heart from the other parts of the body (anatomy), 2) A vein is also any of the many small tubes in the leaves of plants that carry sap (= liquid containing a plant's food) (biology) [4]. The word sticker is borrowed from English into Uzbek and Russian. In English, the sticker noun was formed from the verb to stick (glue, stick) using the suffix -er. In Uzbek, the sticker was borrowed as an indivisible word and entered the synonymous series of the word sticker.

A sticker - 'a type of a piece of paper or plastic, adhesive, sticky on one side, and usually with a design on the other’ [5]. As noted above, when the terms move from one language environment to another, they begin to take root, adapt to new conditions of existence. Gradually, already in the borrowed language new functional - semantic meanings appear that were absent in the source language.

The word sticker turned into Uzbek with the meaning - 'sticker (label or other material)’ Over time, other meanings formed in Uzbek: 1. image (usually advertising) intended for posting on blogs and forum statuses; 2. The professional name of the dry glue stick or the replacement core of the glue gun; 3. Self-adhesive small form of printing. Many of these meanings of the word sticker are not fixed in modern dictionaries of Uzbek.

Present stickers have different purposes and are used as advertising stickers. They are used to disseminate information related to the services provided by the company. You can use the sticker for other purposes, for example, you can paint a car with brand advertising of a company or product.

Stapler - ‘a device for fastening sheets of paper using wire brackets’ [6]. The word stapler is a noun in the Russian language. The stapler English is derived from the verb to staple (staple; staple) and -er suffix. The -er suffix is used to form a noun with the 'meaning the executor of the action or the instrument with which the action is performed'.
staples to close a surgical wound (much in the same way as sutures).

Science and technology are developing and new devices and products of a technical nature appear. Following the stapler, the Russian language includes the anti-stapler token. Antistapler - ‘device for removing staples from a stapler’. The word anti-stapler appeared by adding the prefix anti- (Greek anti - against, pre) to the root of the word stapler. Note that the prefix anti is used with other words to express the opposite or opposition.

The next example, which has found wide application in various fields, is the word scanner from the English word scanner and the verb to scan. Scanner - 1. a device for examining something or recording something using beams of light sound or X-rays; 2. a machine used by doctors to produce a picture of the inside of a person’s body on a computer screen; 3. a piece of equipment for receiving and sending radar signals. Scanner - 1. those a device sequentially viewing an object, image or three-dimensional space and creating analog or digital signals corresponding to the physical state of each part of the object being viewed; 2. Information a reader in computer systems; 3. Biology: device for radioisotope diagnostics.

The term scanner entered the modern Uzbek as professionalism and has expanded the scope of use so much that it has lost its special character of use and has become a common word. This is due to the widespread use of a device that did not exist before at all, and with the use of a computer in all spheres of human life: in offices (a device for reading a two-dimensional (flat) image and presenting it in electronic raster form), enterprises (a device or program that implements scanning, i.e. researching an object, observing it or reading its parameters), in supermarkets and large stores (a device for reading information presented in the form of a bar code.), in medicine (a device that reads the pattern of the retina), in science (a reader of the papillary pattern of the fingertips), when paying utility bills (a device for automated reading of service information, personal data), as well as a software tool in the field of network technologies, etc.

The word scanner is derived from the English verb to scan and the suffix -er (an identifying tool by which an action is performed). With the word scanner in Uzbek, the verb is also borrowed to scan (to scan). In the actual Uzbek language, the verb scan did not exist. The verb scan when switching to Uzbek acquired the following functional - semantic meanings according to the Explanatory Dictionary of Foreign Words: 1. those continuously view the space or whatever, an object, successively moving from one section to another. Scan the space with a radar beam. 2. Information. receive information using a scanner (in the 2nd value). 3. Biology, those using special devices to obtain information about the distribution in any organ of a person or animal of radioactive isotopes that are introduced there for diagnostic or other purposes. The verb to scan, in addition to the presented functional -

REFERENCES

INTERACTIVE METHODS IN TEACHING FOREIGN LANGUAGES

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ABSTRACT

Nowadays we can observe a shift from communicative approach to language teaching to its variety - an interactive approach in modern methodology of teaching foreign languages. Interactive methods are aimed at a broader interaction of students not only with the teacher, but also with each other, as well as increasing the activity of students in the learning process.

KEYWORDS: interactive teaching methods, emotional-semantic method, lingo-didactics, project methodology.

DISCUSSION

As the English language teaching models change rapidly, there has been a significant growth of literature regarding the use of technology in English language teaching. However this paper is not going to refuse that old ways of teaching, they have their own place in language learning even though there have multimedia technologies. The main things that teachers should do is combining these both ways together and create more effective teaching methods. There are a great amount of opportunities for students to gain confidence in learning foreign languages, especially English, who learn for more just full. For them to keep learning languages and to gain more confidence, the world of multimedia technologies are the most productive ones. It should be noted that interactive teaching methods were very popular in the 1970s and 1980s and were successfully realized in the process of teaching foreign languages. Based on the works of the Bulgarian professor G. Lozanov, linguists and psycholinguists developed intensive methods of teaching foreign languages: the emotional-semantic method, method of using internal potential of students, systematic method of teaching adult learners. Interactivity of teaching process is achieved due to the form of organization of lessons, special way of introduction of material, formation of speaking and communicative skills of students. The analysis of scientific and pedagogical literature has shown that the main tools of interactive pedagogical interaction are the polylogue, dialogue, mental activity, creativity, and creation of situation of success at the lessons, positivity and optimism of assessment of students’ work, reflection. Modern linguodidactics and pedagogy offer a wide variety of interactive methods to teaching foreign languages, as warming-up activities (creation of communicative atmosphere); working in small groups; discussion of issues and problems of current importance; educational games (role games, imitations, business games, etc.); project methodology; using of audio and video materials intended for real communication. These are some examples of interactive methods that can be used by teachers in foreign language classroom. Warming-up activity: The topic of the lesson may be introduced by teacher's communication with students on the most varied issues that are discussed in press, on television (recent events in the country, abroad, weather, etc.). Working in small groups: Students are divided into pairs, read the text and find information that is new and interesting for them. They discuss the text in pairs and answer teacher’s questions. Thus, working in small groups, students discuss the material of the text on the given situation and then report the results of their mutual work. Educational games: When teaching English as a second language to adult learners, games and fun activities can be just as important as when teaching younger age groups. Fun adult oriented educational games and activities can help teachers to build class cohesion, raise energy levels and most importantly, provide a framework that motivates learners to produce the target language. Role games, imitations, business games can be used at the lessons to improve communicative skills of students. Dramatization: An exciting world of
performances, songs, games, improvisations, imitations can provide invaluable help to teacher in formation and developing language competence, solving problems of aesthetic upbringing, developing creative abilities students. Activity that stimulates imagination awakens feelings and inspires to play different roles is called drama. In the process of study of foreign language, dramatization turns the lesson into a pleasant and fascinating activity and frees students from a sense of fear. Project methodology After completing the exercises at the lesson, discussing particular topic, and students get homework assignment: make a presentation or project on the given topic. Students may write a script, make a presentation, and prepare a play or video. Although implementing project work in the English language classroom may require some creativity, it’s certainly possible and effective. Teacher works with students throughout the entire project to give feedback. Audio and video tasks Interactivity in the process of viewing of a video in a foreign language begins on an emotional level students feel enthusiastic watching the film and exchanging their views, thinking and speaking during the discussion. Teachers may use such popular films as "Twilight", "Patriot", "The Queen Elizabeth", "Romeo and Juliette" and others. The teacher chooses those methodical methods that contribute to the achievement of learning objectives: to intensify learning process.

REFERENCES
LATIN PHRASEOLOGICAL UNITS AND THEIR CULTURAL SIGNIFICANCE

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Borrowed phraseological units are stable combinations that come from other languages. Borrowing is one of the ways to enrich the phraseology of a given language. A significant group consists of phraseological units borrowed or traced from other languages, among them phraseological units that have become international. Different authors put different meanings into the concepts of "borrowing" and "borrowed word". L. Bloomfield by borrowing understands a certain type of linguistic changes and distinguishes: 1) borrowing of the concepts of culture; 2) internal borrowing that occurs as a result of direct language contacts due to territorial or political proximity; 3) dialectic borrowings that penetrated into the literary language from dialects. W. Weinreich considers borrowing as the initial form of interference of languages in bilingualism. Borrowed words are facts of the language: in addition to being associated with the lexico-semantic system of the language, one can more or less accurately determine the composition and number of borrowed words, most of which are lexicographically recorded. The appearance in the text of a borrowed word, i.e. a word with a certain lexical meaning, not identical to the meaning of the original word, is caused by the necessity arising from the communicative function of the language. I.V. Arnold notes that the long and diverse impact of various languages on the vocabulary of the English language has led to the penetration of more foreign borrowings, primarily Latin, French and Scandinavian.

Phraseologisms can also arise on the basis of already existing phraseological units either by changing the meaning, or as a result of changing the lexical composition, or both in both ways. For example: a humble servant is an expression of refusal or disagreement and a humble servant is a loyal person; to turn our faces (to whom, why) — to pay attention and turn our backs (to whom, why)) — to pay attention and turn our backs (to whom, why) - not to pay attention; pitch darkness is very dark and pitch hell is a mess.

A certain part of phraseological units arises on the basis of borrowing from other languages, for example: Sisyphus labor Sisyphean labor - endless and fruitless labor; Tantalum flour - intolerable flour; Ariadnina thread - that will help find a way out of a predicament.

The connection of history with the culture of various countries is most fully reflected in phraseological units. Borrowed phraseological units that came into English from France, Italy are popular for their accuracy and brevity. Some phraseological units, of Spain, Germany, are firmly established in everyday life and everyday speech, having gained popularity were born on the pages of famous works, others - originate in historical events, others - came from folk sources. All of them enrich not only the culture of the countries where they appeared, but also ours, helping to make literary and everyday speech lively and imaginative.

The sources of the origin of phraseological units in modern English are very diverse. Conventionally, all phraseological units can be divided into two groups: native English and borrowed. Borrowing, in turn, is divided into interlanguage and intralanguage. Thus, three groups of phraseological units can be...
distinguished: 1. native English phraseological units; 2. interlanguage borrowings, that is, phraseological units borrowed from foreign languages by means of one or another type of translation; 3. intralingual borrowings, that is, phraseological units borrowed from American and other variants of the English language [2].

For the most part, the phraseological units of the English language are native English, the authors of which are unknown. Such phraseological turns are connected with the customs and traditions of the English people or with realities and historical facts. For example, Blue stocking (contempt) - a blue stocking ("collection of blue stockings") was named by Admiral Boskenov one of the literary salons of the mid-18th century in London; the reason for this was the appearance of the famous scientist Benjamin Spelling fleet (in this salon in blue stockings). It is interesting that now it is customary to call a woman who was considered a dry pedantic, devoid of femininity. Another phraseological unit is associated with the belief "A black sheep" - a black sheep, i.e. shame of the family (according to the old legend it was believed that the black sheep was marked with the seal of the devil). Phraseology is part of the proverb "There is a black sheep in every flock", which in Russian sounds like "The family has its black sheep"; a the thin red line- a small group of courageous people who defend the terrain or principles that are not inferior to their positions. This phraseology was first used in 1877 by V. Russell. This expression appeared during the Crimean War, when British troops wore a red uniform [3]

Original English phraseological units are associated with the traditions, customs, and beliefs of the English people, as well as with realities, traditions and historical facts. These customs of belief are confirmed by such phraseological units: "Baker's dozen" - a damn dozen (according to the old tradition, bread merchants received 13 breads from bakers instead of 12, the 13th went to account for the income of the merchants); “Good wine needs no bush” - good wine does not need a label (according to a Special group of phraseological units are revolutions that go back to the depths of the ancient era. Myths of Ancient Greece, heroes of ancient literature - many phraseological units cannot be understood and unraveled without knowing the background of their appearance. The source of such phraseological units is history and mythology. Knowing the cause of the phraseology, it is very easy to unravel its meaning, successfully and at the right time to put into speech. Antique phraseological units can serve as a wonderful emotional tone, convey feelings, emotions, personal attitude, serve as a means for a subtle hint. Let us consider examples of some ancient phraseological units, for example, “Wait until the Greek calends” - At the Greek calends, borrowed from Latin. Calends is an ancient Roman word, it means the first day of the month, which was always announced by the priests. Among the ancient Romans, calendars were considered key days of the year: from them, for example, the timing of payment of debts was counted. But the large Greek population living within the borders of the Roman Empire did not count time on calendars. Therefore, the phraseology “wait until the Greek calends” means an indefinite waiting period. And they say they put off until the Greek calends [3].

As for the phraseologyism “cornucopia” - the horn of plenty, the ancient Greek myth tells that the cruel god Kronos did not want to have children, because he was afraid that they would take power from him. Therefore, his wife gave birth to Zeus secretly, instructing the nymphs to look after him. Zeus was fed the milk of the divine goat Amalthei. Once, catching a tree, she broke off her horn. The nymph filled it with fruits and handed it to Zeus. Zeus gave a horn to the nymphs who raised him, promising that everything would emerge from him, whatever wished. So the expression of the cornucopia has become a symbol of wealth and wealth [3].

Phraseologyism “Augean stables” - Augean stable has such an origin - in ancient Greece, King Augeus lived, who was a passionate lover of horses. Three thousand horses stood in his stables. However, their stalls have not been cleaned for thirty years and overgrown with manure on the roofs. Fortunately, the legendary strong man Hercules (called the Hercules among the Romans) came to the service of Tsar Augius, whom the king ordered to clean the stables, because no one else could do it. Hercules was not only powerful, but also smart. He led the river into the stables gate, and a stormy stream washed all the dirt from there. And since then we use the expression of the Augean stables when we want to talk about extreme neglect, pollution [3].

The expression “Ariadne thread” - “the thread of Ariadne” came from the myth of the Athenian hero Theseus. Ariadne, daughter of the Cretan king Minos, helped Theseus, who arrived from Athens, fight the terrible Minotaur. With the help of a ball of thread that Ariadne gave Theseus, he managed to get out of the labyrinth — the home of the Minotaur — after victory over the monster. The figurative meaning of the expression is the thread of Ariadne: a means to get out of difficulty, a guiding principle, a guiding thread [3].

Phraseologism “The sword of Damocles” - “the sword of Damocles” is associated with an ancient tradition. One Greek tyrant (unlimited ruler) Dionysius the Elder had an approximate nobleman Damocles, who was very envious of his sovereign and considered him the happiest of people. Once Dionysius decided to teach Damocles a lesson. During the feast, he ordered the servants to raise Damocles to the throne, to render him royal honors. Damocles was ready to jump with delight. But then he raised his eyes and froze: a heavy sword hung with a pointed downward, suspended from a thin
horsehair, directly above his head. Every minute he could fall right on Damocles head. Since then, the expression of the Damocles sword is pronounced when it comes to impending danger, which could collapse at any moment [3]. Nowadays, the phrase “golden mean” - the golden (happy) mean, we pronounce, as a rule, with irony, showing mediocre and timidly indecisive acts. A decisive and principled person always has only one way, the only right one, on which he will go no matter what. An unprincipled person, on the contrary, will never take an extreme position, but will act along the safest path for him. The expression "middle ground" was invented by the ancient Roman philosopher Horace just to refer to such “reinsured” personalities. Although Horace also shared this point of view, since he believed that prudence should always prevail over risk and extremes.

The phraseological composition of the Latin language is mainly represented in the monuments of written culture, which has lost its tradition, where rich literature occupies an important place. Most literary works of Roman authors and their language is the source of phraseological studies. Latin phraseological units should be perceived as a kind of linguistic reality that cannot be changed, but must be understood and comprehensively studied. Scientifically, the study of phraseology is important for knowing the language itself. Phraseologisms exist in close connection with vocabulary, their study helps to better understand their structure, education and use in speech. Each language reflects a certain way of perceiving the world and organizing society. Each nation has a different nature, way of life, history, values. A special role, in our opinion, in the formation of the linguistic picture of the world is played by phraseology. The figurative content of the phraseological composition of the language embodies the cultural-national perception of the world, created by the figurative memory of the people. His moral values, religious beliefs, etc. Therefore, Latin phraseological units, like most of the phraseological units of other languages, contain important cultural information, and testify to the unique national identity of the people.

Many Latin phraseological units are widely used and nowadays, however, contain a certain semantic element that is understandable only to speakers of a given linguistic culture. The restoration of the phraseological and semantic sources of their phraseological units is of cognitive interest because it reflects the life of the people, customs, and philosophical understanding of the world. For example, it is known that salt was of no small importance to the Romans; they valued it as a seasoning for food and as a preservative for food. Ironically, they called stupid people “unsalted”. The derivative of the word salt - sal, was salarium, which meant salary, wages, necessary livelihoods. Sal atticum (Attic salt) - “attic salt”, subtle wit. The origin of this book expression appeared in the ancient Greek region of Attica, where the wit of the locals was famous. Cum grano salis (take smb. With a grain of salt) - treat someone skeptically, incredulously, critically. According to Pliny (“Natural History”), in Attica, as in other parts of Greece, which had access to the sea, salt was not extracted from salt copies, but by evaporation in the sun or boiling sea water, which made the attic salt especially thin.

A greater number of Latin phraseological units arose on a national basis and were the centuries-old mental and creative activity of the Roman people. Latin sayings allow us to conclude that without continuity and the cultural heritage inherited by us, knowledge and gained experience of generations, it is impossible to move forward. Some phraseological units in modern languages are tracing words in ancient classical languages, in particular in Latin. So, the Latin phraseology sub rosa - secretly, secretly (a rose was a symbol of silence in Ancient Rome) in the English language in the form of under the rose, in French - sous la rose, in German - unter die Rose. The Latin expression advocatus diaboli is a cleric who is entrusted with speaking out against the canonization of the saint. He is calcified in English in the form of a devil's advocate, in French - avocat du diable, in Italian - avvocato del diavolo.

From the point of view of the national - cultural component or linguistic and cultural characteristics, borrowed Latin phraseological units can be divided, classified into the following groups: phraseological units associated with literary sources, i.e. statements by experienced speakers, famous thinkers, writers and rulers; historical facts or events; labor activity of various social groups, i.e. labor and perseverance, reflecting the attitude to life and work. Also, such concepts and human values as life and death, love and friendship.

Phraseological units arising on the basis of labor activity, diligence and zeal represent their national color and cultural significance. The experience of labor and moral education is reflected in Latin proverbs and sayings. We can refer to them: “He that will eat the kernel must crack the nut” - you can’t easily take out fish from the pond, “Nothing comes from nothing” - nothing will come out of nothing, “Practise makes perfect” - the skill of the master puts , the master’s business is afraid.

A special place is occupied by the sayings and statements of famous people, reflecting the historical era, facts, real events, illustrating certain historical periods and realities. This category of winged expressions that pass from mouth to mouth, and which differ from proverbs and sayings in that they are quotes. For example, the expression of Julius Caesar “Veni, vidi, vici” - came, saw, won arose when he wanted to inform the Roman Senate about the victory over the Pontic king Farnak. Phraseologism “Divide et impera” -
divide and conquer was first used by J. Woddis. The divide and rule policy has long been an instrument of imperialism, especially English.

The sayings of some Roman writers in their literary works later became winged universally accepted expressions throughout the world: “aegrotus, dum anima est spes esse, dicitur” the words of the ancient Roman orator Cicero - while the patient is alive, there is hope; “Graviora quaedam sunt remedia periculis” - “medicine is worse than disease” Fr. Bacon used in the books ‘Essays’, ‘Of Seditious and Troubles’; the expression “pannus purpureus” was first used by Horace in the book ‘Ars Poetica’, which meant the best place in the literary work.

Many phraseological units, proverbs reflecting in their connotations such concepts as life and death in the Latin language. “While there is life there is a hope” - while a person is alive, he hopes, as long as there is life, there is hope; “In the article of death” - at death, on his deathbed; “Pay one’s debt to nature” - pay tribute to nature, die; “Join (great) majority” - go to a better world, go to the forefathers, die; “Peace to his ashes!” - Peace be upon him! “Love is the mother of love” - love gives rise to reciprocal love; “Love and a cough cannot be hid” - love, but you can’t hide the cough; “Fire that’s closest kept burns more of all” - the hidden fire burns harder, it means suppressed passion (quoque magis tegitur, testus magis aestuat ignis) - the more you put out the fire, the more it flares up; “The falling out of lovers is the renewing of love” - cute scolding, only amuses lovers anger renewal of love. “A friend in deed is a friend indeed” - friends are in trouble; “Better lose a jest than a friend” - do not make fun of a friend, otherwise you lose him - make fun of a friend - make an enemy. These phraseological units confirm the importance of the values of love and friendship in Latin.

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**Key words:** Borrowings, phraseologisms, interlanguage, phraseological units, culture, perception, figurative, lexical.
MULTIMEDIA METHODS AND APPROACHES IN TEACHING FOREIGN LANGUAGES

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ABSTRACT
In this article it is discussed the importance of multimedia technologies in teaching foreign languages. Moreover it gives us brief information about the advantages of these technologies. The author states that Language is the mirror of every country. So in our country a great attention has been paying for learning foreign languages. In order to reach effective progresses, there different methods have been created, not only methods but also the new ways. One of these is using multimedia technologies in language learning process. It is a kind of learning or teaching system that using from this technology can be rather fruitful than the previous ways of teaching. Moreover it is a century of modern technology and there are given new technologies and duties by the new era to the modern languages teachers.

KEYWORDS: technology, dramatically, English, effective, hardware, amount.

DISCUSSION
One of the most important applied aspects of linguistics is the methodology of teaching foreign languages. If we trace the history of teaching foreign languages over the past century, it becomes obvious that this is far from a frozen system. One can deduce the laws of the process of changing one dominant teaching method to another methodological paradigm. It must be emphasized that such a transition from one method to another is not carried out either directly “from above” or spontaneously. One method develops, as a rule, in the bowels of the preceding one and has two possible development paths: either it contrasts itself with the previous method, being its exact opposite, rejecting its shortcomings, offering radically new development paths “from the opposite”, or the new method follows the creative logical development of the old, improving its strengths, correcting erroneous or one-sided approaches. There are a great amount of opportunities for students to gain confidence in learning foreign languages, especially English, who learn for more just full. For them to keep learning languages and to gain more confidence, the world of multimedia technologies are the most productive ones. In here, multimedia technologies refer to computer-based interactive applications that use both the hardware and software and it allows people to exchange their ideas and information. Multimedia technologies are considered as a combination of text, graphics, animation, video and sound. So by using them, one can use all of these at the same time and take pleasure from both learning and doing some interactive activities. Moreover, computer-based language learning offers a lot of sources for the learners who want to learn languages by themselves. For example, in CD-ROMs “Learn to speak English”, “Speak English like a native speakers”, Fun English” and “Triple Play” or such kind of materials are very favorable for the learner who wants to learn English. Interaction with computers is “fundamentally social and natural”. Simple controls provide easy navigation to any point of training program. While doing some activities learners have opportunities to choose both pace and direction of the course by repeating, reviewing, advancing as many times as desired. Furthermore, multimedia programs help learners to correct their pronunciation by listening the native speakers’ speech. They are offered to learn how to pronounce words correctly. Besides that following the native speakers' speech and imitating their pronunciation, helps them to speak both correctly and fluently. And also, by using multimedia technologies, learners can be aware of a lot of information connected to target languages’ culture, than other textbooks or resources. They helps students to be known with cultural backgrounds and real-life language materials, which can attract the students to learning. By the help learners not only improve their listening ability, but also learn the culture of the target language. Having the abundant information
through the use of multimedia technology, the students can be equipped with knowledge about the culture of the target language. It brings about an information sharing opportunity among students and makes them actively participate in the class activities that help the students to learn the language more quickly and actively. However, it is not true to think that by helping multimedia programs, students can only improve their speaking or listening skills, but at the same time both grammar and vocabulary. The grammar-translation method has its supporters among teachers. It is considered the most “reliable” in the sense of absolute sterility, cleanliness, infallibility, academic rigor. Students with a pronounced logical dominant of thinking prefer this method to any other. It is clear why adult students value it so much. Today, this method has undergone major modifications and incorporates many of the later approaches. For example, the authors of textbooks partially abandoned bilingualism in the wording of the rules and assignments, leaving a bilingual glossary, supplied the textbooks with audio cassettes, replaced the unchanged classics with textbooks that told “about life” in the country of the language being studied.

REFERENCES
THE RULES OF TEACHING ENGLISH TO STUDENTS OF NON-LINGUISTIC SPECIALTIES

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ABSTRACT
The article deals with the problem of teaching English to university students of non-linguistic specialties. Experience in teaching foreign languages at higher educational establishments enables the author to reveal students’ communicative barriers when studying foreign languages. The factors that help the students of non-linguistic specialties master their language skills are pointed out and thoroughly examined. As a result, the author reveals the rules of teaching English to university students of non-linguistic specialties which must be applied at the methodological stage.
KEYWORDS: rule of teaching, stages of teaching, streaming, students of non-linguistic specialties, teaching English.

DISCUSSION
An integral characteristic of a specialist high class is the ability to learn throughout of life. This characteristic is particularly relevant in today's rapidly changing world, since the development of scientific thought contributes to the fact that acquired knowledge, acquired abilities and skills quickly become outdated. Today, a specialist cannot successfully fulfill the tasks assigned to him, relying on the “knowledge base” obtained earlier. Therefore, maintaining a high level of skill requires from a person “updating” existing knowledge, expanding professional horizons. One of the conditions for professional development of a person is familiarization with the proposed innovations in a certain field of scientific knowledge, study of the experience of foreign experts in scientific publications, participation in scientific events different levels of representation in order to exchange experiences and establishing professional contacts with foreign colleagues. Telecommunication Technology Development significantly facilitates the opportunity for domestic specialists to familiarize themselves with best practices and professional growth. A prerequisite for professional development of their qualifications is the level of proficiency foreign language as a means of professional communication of representatives of different countries.

Recently, the process of teaching foreign languages are increasingly becoming an object of scientific interest foreign and domestic scientists. In the scientific literature on the methodology of teaching foreign languages there are two groups of types of speech activities:

1) receptive, which are aimed at perception and the individual's comprehension of information in a foreign language (listening, reading);

2) productive, directed to produce new ideas in a foreign language.

The identification of teaching rules provides for the definition of the stages of teaching English and tasks of each of the stages. In our opinion, the process of teaching a foreign language in higher education consists of the following steps:

• organizational and methodological (the essence of the stage is to divide students into subgroups, determine tasks of the educational process as a whole and each specific classes, determining the means (methods, techniques and forms work) achieve the goals);

• procedural (at this stage, the teacher implements the chosen strategy for the organization of the educational process);

• evaluative (the teacher evaluates the effectiveness of the work done, determines the
degree of implementation of the tasks and adjusts the curriculum).

In the process of working with students of the specialty "Primary Education" we offer students tasks aimed at solving initial problems schools. Therefore, one of the key rules of the organization of teaching English to students of non-linguistic specialties of universities at the organizational methodological step is to orient the process English language training for students to solve professional problems.

A prerequisite for the professional development of an individual is knowledge of a foreign language as means of professional communication. Interest in learning English in higher education is dictated by the leading role of English in all areas of human activities. Success in mastering English by students of non-linguistic majors of universities to a large extent depends on the teacher, the teacher following the teaching rules.

Rules for the organization of teaching English to students of non-linguistic specialties of universities:

1) Assessment of all types of English-language speech student activities;
2) The formation of "mixed" groups for the study of English;
3) The use by the teacher of a complex of educational and methodological developments aimed at the development of all types of English-language speech activity of students;
4) The algorithmization of the presentation of grammatical material;
5) The orientation of the process of teaching English to students solve professional problems.

Of course, the material in the article does not exhaust all the issues of teaching English to non-linguistic students University specialties. Prospects for further scientific searches we see in the definition of the rules of teaching English at the procedural and evaluation stages.

**LITERATURE**

TEACHING ENGLISH LANGUAGE FOR MEDICAL PURPOSES IN HIGHER SCHOOL

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ABSTRACT
The question of teaching English for Medical Purposes has been significantly researched over the last few years. English is today's lingua franca of medical international communication, the same as Greek and Latin were in the past; therefore, it is an essential prerequisite for a medical career, all the more so as in contemporary world medical professional discourse is getting more and more open and Russian healthcare practitioners are expected to discuss and study various medical issues across the borders. Moreover the situations of international collaboration of medical professionals have also become inextricable part of successful career in the sphere of medicine.

KEYWORDS: English for special purposes (ESP), Medical English, medical terminology, professional communication.

DISCUSSION
Due to the globalization of the processes of professional communication, the English language is becoming more widespread and significant in almost all areas of special knowledge. Especially popular are communication skills in English in the field of information technology and medicine. So, in the medical professional discourse, English has become widely apply in the second half of the 20th century. Currently, there is a significant increase in the number of English-language scientific publications on medical subject, in addition, 80% of scientific journals indexed in the international Scopus database are also published in English. English is also the official language of most international conferences. In addition, more and more Russian medical specialists are collaborating with professional teams and medical institutions in English-speaking countries, and for medical students, programs are now more accessible international internships, which also require communication skills in English and a solid knowledge of medical terminology, taking into account all the requirements and challenges that we face reality, more and more acute is the need to rethink some aspects of teaching English to students studying medicine. This is due to the fact that only the full development of competencies that ensure high-quality communication of future doctors with their foreign colleagues in various academic and professional situations is a key factor in the productivity and success of medical workers.

As a starting point of rethinking the structure and content of a professionally oriented English course for medical students, we can take the interpretation of the characteristics of the English language for ASC Special Purpose (ESP), proposed by teaching theorists T. Dudley-Ivans and M. St. John. Scientists subdivide the characteristics of this type of teaching English into two types - absolute and variable.

The absolute characteristics of English for special purposes include following aspects:
- ACS (ESP) is developed taking into account certain professional needs students;
- ACS (ESP) courses necessarily take into account methodological and activity aspects of the special professional industry that he serves;
- during the training of the ACS (ESP), students study grammar, vocabulary, registers, communication skills and genre-discursive specifics of the English language, corresponding to the professional sphere they are developing.

The variable characteristics of English for special purposes include following aspects:
ACS (ESP) can be developed in accordance with specific disciplines professional cycle; ACS (ESP) can be used in specific situations, and its methodology teaching may differ from the general practical English course; with the greatest probability, the ACS course (ESP) is developed for students, students in higher and secondary vocational education programs. However, it is possible to teach ACS (ESP) in secondary special schools; ACS courses (ESP) are usually designed for students with an average or advanced level of knowledge of the English language; most ACC courses (ESP) are designed for students with basic knowledge English, however, they can be used in work with the beginners. Thus, the main goal of creating a medical English course is preparing students for certain situations in their professional communication, such as examining a patient, maintaining a medical history in English language, discussion of various issues related to the provision of appropriate medical care. In other words, during the development of an effective ACS course (ESP) first of all, it is required to take into account the situations of a real professional communication with patients and colleagues with the involvement of the “industry vocabulary”, containing medical terms, professionalisms and jargon [6].

In the course of the practical implementation of the goals it is required to include in the course ACC (ESP) for medical students the following tasks: tasks aimed at developing students' speaking skills in the studied language - a variety of discussions, debates and round tables on discussion of specific problems in the field of medicine; assignments that contribute to the expansion of professional vocabulary of students - acquaintance of students with the new industry vocabulary, work on the right pronunciation of English terms, a comparative analysis of Russian and English medical terminological units and expressions; speech tasks that develop students' communication skills with patients on English language (alternating questions and answers, patient advice) with using the correct grammatical constructions, relevant vocabulary and communicative formulas; when performing such tasks, special attention paid to the formation of linguistic literacy among students; assignments during which students for a limited period of time time invited to familiarize themselves with the content of specialized medical text in English, find in it the most important information and make a message in English; role-playing games and cases simulating situations in which students must solve certain professional problems and demonstrate communication skills in English - e.g. examining a patient, recording medical history, etc.

Of course, in the preparation and implementation of the above tasks should take into account the level of English proficiency of students. So, in the classroom with students whose English skills are consistent level B1 (or pre-intermediate), more attention should be paid to development skills of everyday informal English communication, reading authentic texts in English and listening. Over the next years of study, it is necessary to develop skills for students with such a starting level communication in a professional medical environment, expand their industry vocabulary and create the conditions for the use of medical jargon in speech practice. As for students with a level of English proficiency in B2 (or upperintermediate), then from the first year of study at a university it is advisable to work with them work out communicative situations characteristic of a professional communication, discuss issues related to medicine and the system healthcare while expanding students' vocabulary into relevant grammatical contexts and genres of medical discourse through more complex tasks related to areas of knowledge such as “General Medicine”, “Pharmacology”, “Anatomy”, “Physiology”, “Pathology”, “Therapy”, etc. Of particular interest at this stage is working with terminological units (vocabulary and stable expressions) medical discourse that have developed through such cognitive mechanisms as a conceptual metaphor and metonymy. Learning like that layer of industry vocabulary using conceptual schemes in significant degree improves the results of mastering it by students. A significant obstacle in the study of medical students educational institutions ASC (ESP) is the fact that this discipline is planned only for the first two years of study. It does not allow to implement English course in such a way that it thematically echoes with disciplines of the professional cycle of the entire educational program. Certain difficulties in working with students studying a foreign language for special purposes, they also consist in the fact that the preparation time may be seriously limited. Additional difficulties for the teacher create certain specific requests and needs of students related to updating English in the field of highly specialized professional communications. This state of affairs often requires a teacher development of copyright materials that would be fully consistent academic requirements of students. The solution of similar problems caused by specifics professional field and individualization of approaches in education, it is possible thanks to the involvement of various authentic medical documents in English - newsletters for patients, medical questionnaires, videos and brochures in English, which are distributed in medical institutions in English-speaking countries with the aim of conducting
educational work among the population, English-speaking medical sites, television shows promoting a healthy lifestyle, documentaries and feature films in English on medical subject. All of these resources are extremely valuable for development. corresponding course of ACS (ESP). Creation of the ACS course oriented to the set educational tasks (ESP) (“task-based”) contributes to the creation of favorable conditions for development and consolidation of skills of foreign professional communication in medical students. In a certain way, selected tasks allow students simultaneously deepen their knowledge of medicine and develop skills professionally oriented speech, taking into account structural, semantic and pragmatic aspects of the English language, as well as in accordance with communicative goals.

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INTERACTIVE METHODS OF TEACHING

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ABSTRACT
Using an interactive approach to teaching a foreign language, it is possible to optimize the process of mastering the skills of basic foreign language communication in schools and make it more effective in the context of general education.

KEY WORDS: interaction, intersubjective relations, mental activity, sense-creation, synthesis

INTRODUCTION
Today, foreign language teachers in schools face an acute problem of finding ways to increase students' cognitive interest in learning the language, strengthening their positive motivation in learning. One of the possibilities of solving this problem is the use of interactive learning technology. The technology of interactive learning can be defined as a set of methods of targeted enhanced intersubjective interaction between a teacher and students, the consistent implementation of which creates optimal conditions for their development. The key concept defining the meaning of interactive methods is —interaction. Interaction is understood as direct interpersonal communication, the most important feature of which is recognized as a person's ability to —take on the role of another, to represent how a communication partner or group perceives it, and, accordingly, interpret the situation and design their own actions. Pedagogical interaction is an exchange of activities between the teacher and students, in which the activities of one determine the activities of others. Interactive pedagogical interaction is characterized by a high degree of communication between its participants, their communication, exchange of activities, the changing and diversity of their types, forms and techniques, focused reflection by the participants of their activities and the interaction that has taken place. Interactive pedagogical interaction, the implementation of interactive pedagogical methods aimed at changing, improving the behavioral models and activities of participants in the pedagogical process. Leading signs and tools of interactive pedagogical interaction are: polylogue, dialogue, mental activity, sense-creation, intersubjective relations, freedom of choice, creating a situation of success, positiveness and optimism of evaluation, reflection, etc. In the pedagogical interpretation, polylogue is the ability of each participant in the pedagogical process to have their own individual point of view on any problem under consideration; readiness and opportunity for participants to express this point of view; and any point of view, whatever it may be, has a right to exist. One of such effective technologies can be the inclusion of various art technologies in the teaching. Art technologies used in pedagogy and psychology are based on the use of art therapy techniques and techniques. The term "art therapy" was first used by A. Hill in 1938. In addition to this term, the following names can be used: "creative therapy", "art therapy
technologies", "art psychology", and "creative expression therapy". According to M.Y. Alekseeva, art therapy at school is understood as one of the directions in the work of teachers and psychologists, which implies the development and organization of educational activities with children, aimed at the effective development of the creative beginnings of schoolchildren. M.I. Kiselev gives a close definition, noting that art therapy is a method associated with the discovery of an individual's creative potential, the release of his hidden energy reserves and, as a result, finding them optimal ways to solve their problems.

MATERIALS AND METHODS

Theoretical and methodological bases of the research of this article are conditioned by the specifics of the material under study. General scientific and historical research methods were used. The study used the general scientific principles of knowledge - the principles of historicity, continuity, integrity and consistency.

DISCUSSION

The dialogue assumes that the participants of the pedagogical process perceive themselves as equal partners, subjects of interaction. The mental activity as an essential feature of interactive methods consists in the organization of the intensive mental activity of the teacher and students; the teacher does not translate into the minds of students ready-made knowledge, but the organization of their independent cognitive activity; organization of problem-based learning; independent performance by students of a variety of mental operations, such as analysis, comparison, synthesis, classification, etc.; a combination of various forms of organization of mental activity of students (individual, steam room, group); the process of sharing thoughts between the participants of pedagogical interaction. Sense-making is the process of conscious creation by students and the teacher of new meanings for themselves, the content of objects and phenomena of the surrounding reality on the problem under discussion; this is the perception of the participants of the pedagogical process of the surrounding reality through the prism of their individuality, the expression of their individual attitude to phenomena and objects of life. Freedom of choice of students and the teacher consists in their conscious regulation and activation of their behavior, pedagogical interaction, which contribute to optimal development, self-development.

[2] Creating a situation of success consists in the purposeful creation by the teacher of a complex of external conditions conducive to the achievement by students of satisfaction, joy, and the manifestation of a spectrum of positive emotions and feelings. Success is considered as a motive for self-development, self-improvement. To create a situation of success, a variety of pedagogical tools and conditions are used. The leading condition is positive, optimistic assessment of students. Interactive methods can be classified according to their leading function in pedagogical interaction into methods: - creating a favorable atmosphere, organization of communication; - organizing the exchange of activities; - organization of mental activity; - organization of meaning creation; - organization of reflective activity. Art technologies include the use of: means of illustrative illustration (photographs, paintings, cartoons, diagrams, collages, slides); fairy tales; songs; rhyming and poems; games; cinematography; computer art; theatre performances; dance; drawing. Spontaneity, creativity is the most important component of art technology. In practical experience, the inclusion of art technology can be very useful in the process of teaching English to secondary school students. This approach allows the teacher to increase the motivation of students, and thus improve their performance. Practice shows that a child is more successful in learning the material in the classroom when he or she is interested. The use of elements of art technology in teaching a foreign language includes fantasy, imagination, intuition, creative thinking, which has a beneficial effect on the emotional state of students.

RESULTS

The technology of interactive learning can be a technological characteristic of a separate lesson, occupation, extracurricular activities. At the same time, a series or all lessons, seminars or classes in any academic discipline can be conducted online. [1, p. 69] The use of interactive methods in the pedagogical process encourages the teacher to constant creativity, improvement, change, professional and personal growth and development. After all, getting acquainted with one or another interactive method, the teacher determines his pedagogical capabilities, identifies with the characteristics of the students, the proposed content, and tries on his personality. And this innovation activity does not leave the teacher until he realizes that interactive teaching methods are an effective pedagogical tool, and the use of interactive learning technology in the pedagogical process is a necessary condition for optimal development of both those who study and those who teach. Significant changes in various spheres of life of a modern person were also reflected in the acquisition of a future profession. This aspect is of particular relevance at the senior school age, since educational and professional activities are leading for high school students. Independent solution of the tasks arising in front of high school students is difficult.

CONCLUSIONS

Finally, it should be noted that art technologies are suitable for working with children with different abilities and in groups with mixed levels of ability, as
they allow each child to act on their own level and be valued for their contribution individually. The application of art technologies allows making English language teaching in secondary school creative, interesting, not boring, very lively and diverse. They reduce anxiety and negative manifestations of students. By working with fairy tales you can develop all kinds of speech activities in the student. For example, it is possible to play fairy tale episodes, and thus develop speaking skills. It is possible to give the student a homework assignment to complete the continuation of the fairy tale, so that the student develops his or her writing skills. After reading the fairy tale, it is necessary to discuss the behavior and actions of the characters and, therefore, the development of speaking skills. Inclusion of songs helps to form linguistic competence of students, develops pronunciation skills. The content of the lyrics and poems helps to expand the active word count of the students. Observations confirm the opinion of G.A. Podgorneva that the illustrative visualization stimulates activity and interest among students. The main functions of visualization are to increase the motivation of students, the development of creative imagination and thinking, and the assimilation of educational material. Working with visual material stimulates students to speak, and listening. Various verbal and non-verbal visual aids used by the teacher in the classroom help to preserve the meaning in the memory of children that they need to convey or receive.

REFERENCES

MODERNISM IN UZBEK LITERATURE

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ABSTRACT
This article discusses the nontraditional interpretation of Uzbek literature - modern poetry, its theoretical aspects. The poetic features of modern poems and trends in the development of Uzbek literature are described. It is also explained by the changes in modern literature in the national thinking and perception by the views and opinions of several theorists. These theoretical considerations are based on poems by contemporary poets. As a result, this article provides an overview of modernist poems and their poetic features, which are now widely used in Uzbek literature.

KEYWORDS: poetry, literary world, poetic observation, lyrical experience, lyric hero, attitude, analysis, simile, comparative analysis, inspiration, talent, personality of the poet, poet's world.

DISCUSSION
The different trends and tendencies that have arisen in the Uzbek literature, which in the XX century has undergone dramatic changes, have led to quality changes within their capabilities, with the level of their talent were created different works. Not all of these areas have existed for a long time; even their most devoted followers eventually changed their views, carrying out work in other flows. However, the literary trend - modernism, which, in spite of the social transformation, represented spiritual experiences of the person has further strengthened its position in the cycle of social order.

In our national literature modernism twice resolutely entered to the literary scene: at the beginning of the XX century and in the last two decades of the same century. Why does the existing currents of modernism only managed to keep the interest to itself and to seriously impact on the development of literature? Could it be that in this period there were poets and writers, talent and philosophy of whom were prone to this trend, or our national mentality and feelings come into a certain state at a time, or the phenomenon explained by the close relationship of our literature with universal aesthetic process?

Jaded, taken in the early XX century to try and deal with the problems of the social system of literature and art which swept the floor in the common environment, lowered her to the heights of aesthetic, in other words, aspiring to give art to the society by socialization of literature, became the first “modernists” in the history of the national art thought. Because main aim of creating works like “Patricide”, “Doctor Muhammadiyor”, “Unhappy bride”, “Easy to be a lawyer?”, “Indian rebels” are rather public, than artistic. For this reason, Jaded not satisfy the centuries-old form of artistic representation. Eternal themes, fluvial outrage centuries creators of art literature, were also subjected to qualitative transformation, now the writer felt the need not for the image of fair king or divine love, and even not a perfect life, but in the true description of the diversity of family and social life in black and white, he wanted to show man not only in his unattainable height, but with all the meanness, disadvantages, sins.

Just this need, the updated theme, new genres, new approach modernized literature of the Uzbek people. In fact the world is the same for everyone, but everyone accepts it, according to their own beliefs, feelings and perceptions. What is the world true knows only God. Therefore, the absolute being represented only relatively, as far as fleeting human emotions.

Drastic shake-up of the XX century led to the aggravation of personal human experiences so that available funds of artistic depiction become infirm before them: writers like them began to make their way through the frame. Any new artistic means, reaching the limits of their capabilities, starts to limit the ability of the writer and force him to repeat himself.
At a time when the monotony bored reader and the writer did not get the moral satisfaction from what is written, arose completely new approaches, phrases, metaphors and artistic means. As well as French researchers have motivated the emergence of meter free verse in French literature of the crisis talk, we are of the opinion that the cause of all the changes and experiments in the Uzbek literature at the end of the last century is an attempt to get away from this formal and ideological uniformity.

Man seeks to upgrade everything. First, he changes the environment, then through the expression of feelings, that have arisen as a result of connection with these changes, change the channel of the literature. And this modified literature again updates the environment. It is impossible to determine exactly which of these areas has an impact anymore.

In 10th years of the XX century Uzbek literature was left between the conflicting feelings caused by the development of technologies that facilitate our lives and abrupt upheaval that complicate human existence. This conflict broke spiritual, social- political and the literary roots of a person with a long tradition. In the society itself, and in the literature, but because of the literature in the public formed trend, radically different from each other.

Among the writers who have not had their fans no in social life, no in artistic creation, increased craving for decadent. However, after doubts about the future, desire for death, foreboding crisis have been banned by "happy Soviet system", representatives of art literature could do nothing but to carry out work in a method well established in the Russian school of realism.

If it was not discontent of years of pressure and jolly and unrest, the Uzbek literature would become driven into the frame, boring ideological phenomenon. It is this hopelessness gave to the national literature such talents as Gafur Gulyam, Mirtemir, Zulfiya, Erkin Vohidov, Abdullah Aripov. They were able to change the unbearable monotony, giving to the literature the fresh air. Thus, following the traditional mass works begin to shoot its way early modern literature. However, modernism has never left the literature and will never leave it, just literature, which is not experienced updates becomes dry set of words that have nothing to do with artistry. Talented writers and poets are not focusing on the individual traits of modernism, develop it with their creativity.

One of those poets of the 70s of the XX century is Rauf Parfi, who has made absolutely new tune to the Uzbek poetry.

With his creativity Rauf Parfi animated and designed as a separate branch of artistic traditions of representational art nouveau, which is started by Chulpun in the early twentieth century and continued by Aibek. So, appeared a whole team of writers and poets who have different views on the world and man, who sought to express their thoughts and feelings in other way. Some of them are not backed off their path, while others are occasionally mentioned in the traditional manner.

Rauf Parfi and poets around his entourage have updated not only a means of artistic depiction, but the system of sensitivity, depicted in their poetry. Of course, this does not become a mass poetry, never gained millions of fans due to the fact that in every age people of subtle sense of poetry was not so much. Conscious reading of tamsil Rauf Parfi citing examples such as: ("Seeing you, you did not see", "Your language like green leaves...", "Floats my dead body, filling up to the limits the river ..."); "On my eyelash liquid excitement", "On eyes round love ", "I threw myself on a chair ", "Golden leaves become singers", " Do not be covered with black clouds because of sorrow ", " My heart, do not forget your name "; " Struggling with the darkness rain ", " In the dialect of conscience, the altar is the faith" ," I've got eyes, chained to the sky " , "In the eyes two pearls " , " You will die with a warm smile on your lips ") requires from the reader earnest artistic training. In particular, deserve special attention following lines of author:

Шабнамнинг соф қадаҳи синди...
Кулимизни совурди фалак –
Сен мендан айрилдинг, мен сенидан.
Үйин тушар рангни капалак. [7, 18 ]

Crashed clean glass of dew ...
Dispel our ash the sky -
I separated with you, you are with me,
Started dancing butterfly.

"Rauf Parfi does not indicate the way to the reader does not teach him. No claims where is the truth, and displays his inner world "[11, 376]. Artistically exploring certain aspects of social life, the poet pays special attention to the image of personal experiences of conflict arising in the human soul. Artistry of the poem determined by the ability of the poet to express literary, national, personal traits, sincerity of imaging, colorful style of syllable, regardless of trend in the lyrics. The poet must have the representation of everything that happened to him in the art world, but at the same time should not repeat what has been said. Consequently, unique tamsil about giving examples and wonderful
comparison in the lyrics of Rauf Parfi not lost their splendor and to this day.

Social and ideological transformations of the last century destroyed the established in Uzbek literature stabilization. If at the beginning of the century literature considered its main concern as social status, level of education of a person, by the end of the century, it has paved the path to his inner world, the soul. Consequently, literature refreshed. Updates touched as an object image, and his manner. Literature begins to depict the object not so as it is, but as it seems. The result - flashed colorful inner world of objects in reality, dazzle with its radiance. Modernism began aggressively pursue the subject, not an object "[1, 11]

Thus, in the Uzbek literature confirmed the modernist direction. In fact, everything in this world is relative and subjective. As Nietzsche said: "There are no facts, only there are interpretations". Modernist approach to each person as an individual. The human person, considered until then a representative of social caste in their work rose to the heights. Therefore, neither the literature nor its characters and readers could not become widespread. It is doomed to end of the century, it has paved the path to his inner world.

As noted by Kant: "comparisons in poetry are not in order to determine the shape or thing, but to cause the performance." Modernism replies to these requirements, gives freedom to the poet, freeing him from any restrictions. Modernists sometimes do not recognize the science, reason, and formal logic, considering that they restrict the freedom of thought. Their creative principle was: "there is no place in the art for the method, the ignorance better than it." [3, 299]

Modernism is not updated the expression of feelings, but them own. He became an art, a radically different way over to the new feeling.

Lack of ability to read the works of modernist transfer to another conscious turned intimate reading phenomenon when a man is alone with his own soul. Poetry was moved from the hearing into the soul. Thus, the reader was "confined" with his own soul. Poetry was moved from the intimate reading phenomenon when a man is alone.

The whole world - is a shell that needs to be realized. In addition to his mental awareness, you need to feel the heart and only then will be clear to the reader the essence of being. Modernist literature has applied new ways of realizing sense of reality, turning his gaze not reality to man, but from subject to object. Its main principle is to transfer the reality that emerged in the author's view, the words that has lost its original meaning.

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Now poets did not satisfy more any image senses of words nor their location in a form, broadly captures the essence of feeling (visual), they began to make themselves into poetry form:

- Ҳеч ким қилмaganдай ҳали хиёнат,
- Рўбарў келгандай ишқа илк бора,
- Қулиб боққандидай йиглолқи омад

Бунчалар энтиқдинг, юрак бечора?[9, 81 ]

As if no one has committed treason,
As if for the first time met the love
Like a fortune smiled on you whining,
Why are you sighing about poor heart?

The whole world - is a shell that needs to be realized. In addition to his mental awareness, you need to feel the heart and only then will be clear to the reader the essence of being. Modernist literature has applied new ways of realizing sense of reality, turning his gaze not reality to man, but from subject to object. Its main principle is to transfer the reality that emerged in the author's view, the words that has lost its original meaning.

- Қайда яшамасин одамзод, асли
- Сангижумон, Румо ё Тошканд.
- Аслienda биттадир юракнинг касби:
- Юрак эркка ихтисослашган.[9, 88 ]

Wherever there was a man
Whether it Sangizhumon, Rome or Tashkent.
In fact there is one task of heart:
Heart intended for freedom.

Unique phrases. This uniqueness lies in the melody and comparison. " Юрак эркка " - the tone falls; " ихтисослашган " - awakens man. In the beating heart of the man appears - the desire for freedom.

This line causes the reader to the cold-blooded, free of emotion, reflection. Event does not occur, but it comes, the reader should not look for it from the outside, everything inside the lines, in the essence of the poem.

Thus, the poet, reaching the limit inexpressible feelings without explaining did not said thing only shows them the story on their behalf. As a result, the reader is forced to become a partner of the writer, continuing as far as possible the work begun by them.

In conclusion, it can be noted that the Uzbek modernist literature has a national image. The phenomena of modernism saves people with special aesthetic taste to adapt to the tastes of the majority.

Худди биринчи бор келгандай баҳор,
Энди гуллаётган сингари гуллар,
Дарахтлар шу бугун кийгандай қабо -
Эрк кучганан янгилг оч, юлун қуллар.[9, 81 ]

As if for the first time spring came,
If the flowers bloom for the first time.
Like today, the trees were dressed in the dark.
Hungry slaves like the taste of freedom.
Modernism is the direction that claims, that dissent is not a crime, but a sign of individualism that does not have all the usual beautiful and perfect, and the need to avoid such monotony.

REFERENCES
SOCIO-PEDAGOGICAL FACTORS OF INTEGRATION OF PHYSICAL AND SPIRITUAL-MORAL EDUCATION IN YOUTH STUDENT

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ANNOTATION

This article outlines the need for an integrated approach to teaching the harmonious generation. The article also describes how to integrate physical and spiritual-moral education in the personality of the student.

KEY WORDS: education, upbringing, harmonious generation, integration, personality, physical education, spiritual and moral education, acting, morality and ethics, didactic principle.

INTRODUCTION

The need for education in modern science and technology development, in close cooperation with the market economy and production is considered to be one of the main objectives of the National Program for Personnel Training. Therefore, the effective use of integration in the development of education becomes a priority.[1]

OBJECTIVES

In addition to the scientific researches of our country's professors and scientists on the integration, foreign scientists also carried out their research. “Integration is the convergence and interdependence of disciplines in the processes of differentiation. One of the disciplines in the system of general secondary education is the development of scientific and pedagogical bases of integration of the subjects of physical education, which increases the effectiveness of education and eliminates the burden of overwork and stress. The process of integration appears in the highest form of interdisciplinary connectivity” [2]

Integration can be seen as a source for finding new evidence that confirms or deepens students' observations and conclusions in various disciplines. In this regard, our research focuses on the integration of physical and moral education in the formation of the younger generation. In view of the above, integration provides a great potential for systematic interdependence between disciplines, complementary, complementary, and perfecting disciplines.

METHODOLOGY

Every social system has such concepts as physical education, education, spirituality and enlightenment, which provide for the physical growth of a person, which requires the study of changes in pedagogy in connection with the development of society. It builds the willpower, teach you to aim for a specific purpose, to endure difficulties and to endure. Sport is not only physical but also an important factor in spiritual and moral development. It instills a feeling of confidence, pride and pride in victory in the human heart.

President of the Republic of Uzbekistan SH. Mirziyoev notes this: “We will continue to attach great importance to the dynamic development of sports, encouraging and supporting athletes who have achieved outstanding results in international competitions. The issue of upbringing a physically and spiritually mature generation in our country is a nationwide task, and the focus of our present policy is to consistently and persistently continue to work toward this noble goal. Physical education plays a key role in the comprehensive development of the younger generation: mental, spiritual, moral and physical development. It is important to successfully address the issue of upbringing morally and spiritually mature people, to
study the historical traditions, spiritual values, scientific heritage and historical and educational experience of our ancestors and realize their achievements. [3]

STATISTICAL DESIGN

Clear historical, natural and social factors are the basis for their formation and development. It is clear fact that the thinking, lifestyle, physical culture, spiritual and moral views of any nation or nation do not spontaneously form in a vacuum. Good manners also mean that we are not just others. In particular, according to our national traditions, the perfection of a person is, first and foremost, manifested in his spiritual and moral maturity, in his efforts to deeply explore and enrich the heritage of his ancestors, and to show respect and honor. As we look at history, the activities of great people are not only profoundly organized and profound, but also with their morals and ethics. [4]

RESULTS

Not everyone can determine the level of perfection on their own. Perfection is better for everyone than for each individual. A perfect person is a person who is completely free from slavery, ineligibility, and dependence. While physical education is one of the important stages of pedagogical education, it is home to a wide variety of exercises, sports, travel, health-improving factors (sun, water, air, hygiene), and mobile games. High culture is formed, developed and improved in the educational process. In particular, physical states are an important factor in shaping and enhancing human qualities. As mentioned earlier, the natural movements of people are nurtured by special exercises and games that contribute to the development and improvement of the joints.

SUGGESTIONS

The referees will be fair in controlling the passing of the games. Teacher and active learners play a key role in making the games fun, organized and fun. Visually, that is, didactic principles and methods are often used to study and conduct moving games. These situations are consistent and perfect for students. It is important to draw a field or playing field, to express rules by hand, to draw the technical actions of the players. The use of schedules, sketches, slides, video images, and other technical tools is fully reflected in the game's performance. [4]

CONCLUSION

The importance of national action games will need to further improve students' physical fitness, improve their physical fitness, and promote these issues in other areas. Summing up the above points, it is important to note that the following tasks should be implemented to ensure the integration of physical and moral education in the formation of the student's personality:

1. Development of principles, principles of the integration of physical and moral education in the formation of the student's personality.
2. Creation of moral and ethical criteria for the choice of physical training, shaping the personality of a harmoniously developed generation.
3. Develop a program to ensure the integration of physical and spiritual education in the formation of the student's personality.
4. Creation of scientific and methodological recommendations on the definition of forms, methods and means of formation of moral and moral qualities in students through physical education.
5. In-depth study and analysis of the process of ensuring the integration of physical and spiritual-moral education in upbringing of a harmoniously developed generation as a pedagogical problem.
6. To study the content and pedagogical and psychological features of physical and moral education of students.
7. Determination of the optimal forms, methods and means of ensuring the integration of physical and moral education in the formation of the student's personality.

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THE INFLUENCE OF FAMILY RELATIONSHIPS ON PARENTING IN THE HERITAGE OF EASTERN THINKERS

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**ANNOTATION**

*This article discusses the role of Eastern thinkers in the family, interpersonal relationships in the family, as well as the role of parental responsibilities and their role in the present.*

**KEY WORDS:** Education, philosophical, moral-psychological, ideological, Avesto, upbringing, knowledge.

**DISCUSSION**

Our outstanding scientists, who lived and worked in the ancient East, focused on the family, parenting and healthy parenting, regardless of what areas of research they are looking for. We see that family relationships are reflected in our national values and in the historical and spiritual heritage of our great thinkers.

These include the books of Avesta Eros Enasoy, “Wise People” by Yusuf Khos Hajib, “City of Good People” by Abu Nasra Farabi, “Ancient Monuments of Abu Raikhan Beruni”, “The Law of Medicine” by Abu Ali Ibn Sina, Noble ideas of family education, as is known from stories are passed down from generation to generation with their philosophical socio-psychological views.

The idea that unites all Eastern thinkers is that they put the role of family and family upbringing in the development and upbringing of the person, paying special attention to the leadership and educational responsibilities of parents and close people in the intellectual and moral development of the person.

In their works we see a number of positive qualities that can be found in the family, such as honesty, honesty, hard work, honesty, courage and kindness, which are reflected in their philosophical and moral-psychological views.

In particular, Avesto, the main book of Zoroastrianism in Central Asia, pays particular attention to family relations. Avesto says that the father is the main leader in raising a child based on the following motives for marriage:

- love because of love;
- Will of parent or guardian due
- a desire to have children;
- It is also said that in Avesto it is strictly forbidden to marry offspring.

In general, the emphasis of Zoroastrianism on family problems can also be seen in well-known words about the social importance of parenting.

The contribution of our great-grandfather Mir Alisher Navoi to the spiritual and ideological views of man is invaluable.

In each of the works of Navoi, special attention is paid to the education of perfect people. Navoi’s book Mahbub-ul-Kulub (Love of Hearts) describes the observations that he studied throughout his life about the good and bad qualities of family traditions of the way of life of ordinary people.
Navoi’s views on the family values of the couple’s happiness and qualities are of great psychological importance and are necessary for young people to be ready for family life, as they form a positive image of their national values and, thus, form a positive outlook on their family. In each of his works, Navoi considers perfectionism and its positive qualities as the fruit of parenting and upbringing in the family. Alisher Navoi glorifies the good qualities of parents in his works. It is said that such qualities as well-being in them, that is, an integrated family, play an important role in the influence of older people on the upbringing of children. She believes that paternity is the main driving force behind her vision. “The condition and happiness of a wife. The peace and tranquility of the landowner is here. If it’s good, it’s satisfying and good-natured. Discipline is discipline in the household. If he does not know, his heart will suffer. If you are a drunkard, you will lose your manners and your family will be disgraced if you are unreasonable”1. Alisher Navoi argues that an example of a mother in a family is that her behavior is largely in the public domain and that a role model for her child can be turned negative. He is particularly concerned about the imperfection of the parent’s spirituality, which can lead to irreversible defects in the development of the child. This is reflected in the following byte:

Who says: “If a dog with a puppy is a thousand
A dog is a man without a donkey.
These verses say that Navoi is primarily a family environment, that is, a child grows and imitates in the same way as a parent brings up a family.

Navoi’s views on the family values of the couple’s happiness and qualities are of great psychological importance and are necessary for young people to be ready for family life, as they form a positive image of their national values and, thus, form a positive outlook on their family. In conclusion, it is important to note that each of the works of a great thinker is an important source of education for our youth based on our national values.

According to Abu Nasr Farabi, one of the great scientists of the East, the influence of the environment and upbringing can shape the moral character of the family. Farabi believes that the concept of morality is inextricably linked with the nature of man. According to him, there are 4 obstacles to the full development of the human personality. These are:

- Disrespect
- Moral
- Variability
- Doubt

In addition, Farabi expresses his opinion about the rigidity and softness of education. This, in turn, is one of the main ideas and methods of educational psychology. In Farabi’s poems, “The City of Good People” and “The Way to Happiness,” eastern delicacy between parents and children is a matter of love and respect. Therefore, he points out that the values left by his ancestors should be respected by tradition and tradition. To do this, she offers parents to raise their children in the family based on traditions and customs.2

Describing the image of a well-educated person, Farabi says: “If someone says that he has not learned wisdom, let him start at an early age and know his health. All people love when their behavior is beautiful. A person whose behavior is correct will go online.

When a broken father is in the family, the child’s behavior as a child grows. When the father controls the child, he is conscientiously brought up and brought up. When a good action comes with white milk, it does not change until death. What does the boy know when he or she grows up and dies until she dies.

It is noteworthy that Abu Rayhan Beruni and Abu Ali Ibn Sina, known as the great thinkers and geniuses of that time, are known for their wise thoughts and ideas. They believe that in good deeds, special attention will be paid to the role of work experience and observation in raising a child and only in a fair and healthy family environment.

Of particular note are the views of orientalist Abu Raikhan Beruni on family relationships. In his works, Biruni pays particular attention to the education of women. In her book Mineralology, she gives advice on raising married girls, arguing that the family world is the responsibility of most women in raising children. Good deeds emphasize the importance of work experience and observation in personal education and firmly believe that a child will exist only in a fair and healthy family environment.3

Ibn Sina’s views on moral and ethical factors in personal education are included in his "Treatise on Ethics", namely: "Brochure on the Family", "Book of Justice", "Brochure", "Book of Justice". events ". The pedagogical and psychological views of Ibn Sina are built on a social basis, which emphasizes that the use of universal values in parenting also plays an important role in parenting in the future. Ibn Sina talks about the way of life in his thoughts about the moral education of the child. Raising a child is the main goal of a family

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1 Alisher Navoi Mahbub-ul-Kulub (Love of Hearts) 1.11. T.
2 Farabi “The City of Good People” chapter 3. 305 . T.
3 School against. Scientific and methodological journal 2014
parent. A parent teacher who is able to correct his or her deficiencies is the most important tool. In a moral context, the scientist's emphasis on the role of the family can be seen in the fact that he addressed the issue of family and family relations in his book “The Conversion of the Lord”. In the section “Avsofi behtarin zanho” (“Best Women”) of the book “Turn to Business” her ideas about the family, especially in raising children, are exemplary.

Yusuf Khos Hajib, a great thinker and poet of the eleventh century, in his book “Knowledge Leading to Happiness” explains his views on the culture of communication in the family and the public, commenting on the concepts of good and evil, nobility and decency. He believes that communication and socially useful work is the main criterion for the development and survival of a person only in society.

It is well known that the family is the foundation of society. He writes about adjectives based on family values. That is why Yusuf Khos Hajib was considered the cornerstone of the moral development of the child. Thus, we see that the family environment, upbringing and high responsibility of parents in relation to their child and his achievement are also mandatory. Yusuf Khos Hajib "If the boy’s behavior is bad, the child is innocent. All the fault lies with his father." That is why parents, especially the father, should pay great attention to this.

One of the most famous teachers of the East According to Avloni, the social environment and family circumstances play an important role in the formation of moral values in children. Avloni emphasizes the role of the family in the development of the child as an individual and says: “This is what you do in a double room” “When asked about the rule of thumb, she says that this is the first home education, when the mother’s work is the second and the madrassa teacher’s. This father is a teacher and government official.” In conclusion, parenting begins with the family and emphasizes the role that the mother plays in this. In general, the masterpieces show that the peoples of the East pay great attention to the spiritual education of the child through family rites.

It is well known that family life is closely connected with the life of society and never loses its relevance. The fact that family and family relations have a long history can be seen in the folklore of our people, which is passed down from generation to generation. Also in the hadiths of the Holy Quran, we can see in the works of oriental scholars that the interpersonal relationships of the family in parenthood and the obligation of children to educate the bride about the couple’s responsibility for choosing the bride’s marriage. In general, the inhabitants of the East attach great importance to the spirituality of the child and his willingness to live independently. He says that all the good qualities of a parent in a family are enriched by an example of good parenting, that is, children should be guided not just by good advice, but by the conviction of their children to do good. In addition: “Those who say that this is evil do not work, and that if they do this evil, they will sow oats on the earth that will not do them any good. When this happens, children should learn to bring up a good upbringing, and not just hear the dignity of humanity from only one language”. These ideas can be a guide to proper parenting. It is from the ideas of Eastern thinkers that a personality is formed in the family and on the basis of family values. We can see that the views of the family as the primary social environment in the minds of our thinkers and the healthy views of the person’s personality have not lost their father’s particular relevance in raising faith-related issues of faith. The human qualities they have formed are an important factor in expressing human excellence.

In conclusion, many aspects of education are directly related to the moral maturity of the parents and the warmth of the warm relationship between them and the psychological climate in the family. Because the moral image of parents in the family plays an important role in raising children.

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FORMATION OF COMPETENCE FOR THE CREATION AND USE OF ELECTRONIC LEARNING RESOURCES FOR FUTURE TEACHERS

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ANNOTATION
The current stage of development of education is characterized by the interdependence of information and pedagogical teaching technologies, their optimal connection with each other, which allows to reveal the creative potential and personality of the student. In this process, textbooks play a significant role.

KEY WORDS: electronic educational resources, modern media, pedagogy, lectures, seminars, media competence, multimedia, media education.

DISCUSSION
The training form in the form of a lecture-seminar has already lost its effectiveness, and practice shows that almost 50% of its time is wasted. It is important to note the following conclusions drawn from the study of foreign experience: The teacher does not act as an informant, but as a consultant, consultant, and sometimes even a student’s colleague. This gives some positive results: students actively participate in the learning process, learn to think independently, promote their own views, and model relational situations.

The constant growth of information and limited training time make it necessary to intensify training, develop and apply non-traditional technologies based on the use of computing technologies with active teaching methods. The introduction of active methods is one of the main tasks of didactics, which involves the activation of the entire process, the identification of systems and methods that allow students to increase their activity by forming a positive motivational structure of cognitive activity.

The changing information and cultural environment presents modern pedagogy with a number of complex tasks that are new to society and pedagogy. The development of new information and communication technologies has changed the information environment in which human development and social work can develop. Modern media in many cases have become carriers of social norms, values and rules that people adhere to. At the same time, new information technologies have become an incentive for the development of human intelligence, a new level of storage, processing and production of information. Information literacy and media competence have become one of the most important qualities of a modern person, allowing him to navigate modern information communication, choose information that is important to him, develop his abilities and solve pressing problems.

Preserving the most important achievements of mankind, the new information culture requires the modern person to develop new intellectual activity that allows him to work more efficiently in the information world.

Peculiarities of teaching students at different educational levels impose serious restrictions on the development, structure and use of e-learning resources. The need for early training of specialists in the field of information technology and teachers of natural sciences for the development and effective use of e-learning resources is common to all levels of education.

Only a well-educated teacher can ensure the efficient use of e-learning resources in the learning process. On the other hand, the retraining of a large
number of teachers in educational institutions is impossible without the creation of appropriate educational and methodological electronic educational resources.

When e-learning resources are available and used, the teacher can not only work, but also study, improve his skills and retraining (receive secondary education). Now, pedagogical creativity and experience can be embodied in e-learning resources and, therefore, in the pedagogical community².

Currently, the main directions of the use of computer science in the educational process are formed, the following is a list of reductions in their use:
1) as a means of knowledge control;
2) as an independent learning tool;
3) the use of multimedia technology as an illustrative tool to explain new material to improve visibility;
4) the use of web pages (for teachers) with methodological developments, curricula, etc.
5) use of online abstracts collections (for students);
6) the use of practical modeling of experiments on objects and processes using computer simulation;
7) training using automated systems (information, modeling and teacher);
8) teach students to develop practical skills and solve problems on the computer;
9) training in the use of ICT in the chosen field of activity or profession.

Also, an analysis of the main factors affecting the ICT application process can be distinguished by:
1) the number of exhibition classes and their equipment is growing more slowly than students;
2) updating the educational resources of educational institutions is not carried out to the required extent. The value of specialized literature in retail is very expensive. It is difficult for teachers and students to attend conferences, prospects, or buy new teaching materials for financial reasons.
3) and not traditional ways of obtaining information among students (books, magazines, lectures) through its new channels: there is a tendency to give priority to the use of multimedia and hypertext catalogs, encyclopedias and training programs on CDs and Internet resources.
4) independent study of new ICT elements by students, students and teachers in specific specialties and subjects.

In order to formulate a holistic approach to the use of e-learning resources in teacher practice, the use of ICT training tools for the subject function, taking into account the interdisciplinary relationships of the use of information, ICT skills and abilities, the modularity of the course and e-learning resources, and much more, consider the main ways to use it³.

Directions for the use of electronic educational resources of a teacher of natural sciences:
1) methodological preparation for classes and extracurricular classes in science;
2) the implementation of all types of activities and activities in science;
3) quick feedback, collecting research results for statistical reporting in the learning process;
4) acquaintance with new resources and opportunities of e-learning;
5) share experience between colleagues.

Electronic pedagogy, which arose at the end of the 20th century, was the result of new technological advances. The development of international standards for the development of e-learning systems has become an important step in the integration of technology and pedagogy. Nevertheless, these achievements did not reduce the social nature of the pedagogical process, but on the contrary, the costs of creating e-learning systems and inconsistencies in the quality of their work made this necessary.

The modern e-learning network in many respects confirmed the state of learning in the 60-70s, when it was programmed in the West. According to him, the classification and algorithmization of the learning process are at the forefront, and the ability to show the correct answers in test tasks is equated with knowledge. Recognizing the superiority of human cultural development, the modern level of pedagogical science cannot satisfy even the high level of multimedia capabilities and communication technologies.

Thus, pedagogical science has developed many models and concepts of the information-educational system, reflecting various aspects of the use of new information technologies in education, seeking to master new tools and teaching methods provided by modern computers and communication technologies. In

our opinion, when it is necessary to look at the phenomenon of modern e-learning from a more general social position, these approaches represent only the technological aspect of new learning environments. In addition, it is necessary to take into account media education, the direction of pedagogy, which is accelerating in the West. First of all, this is due to the fact that the media are becoming more and more cultural, and the media environment is increasingly affecting the development of youth today. The concept of media education in high school should fill this gap.

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MANAGEMENT SUPPORT PRACTICES TO PROMOTE TEACHERS’ INSTRUCTIONAL IMPROVEMENT FOR SUSTAINABLE DEVELOPMENT IN SECONDARY EDUCATION

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ABSTRACT
This study ascertained the principals’ management support practices to promote teachers’ instructional improvement for sustainable development in secondary education in Anambra State. Two specific purposes were formulated and two research questions guided the study. The study adopted a descriptive survey design. The study was conducted in the six education zones in Anambra State namely: Aguata, Awka, Nnewi, Ogidi, Onitsha and Otuocha. The study population comprised 257 principals in public secondary schools in the six education of the State. No sampling was used due to the manageable size of the population. The instrument used for data collection is a structured 15 items researchers’ developed instrument titled; Principals’ Management Support Practices to Promote Teachers’ Instructional Improvement Questionnaire (PMSPTI iq). The face validation of the instrument was established by three researchers. The Cronbach alpha was used to determine the reliability of the instrument. Coefficient value of 0.84 was obtained. Data were analyzed using mean and standard deviation. The findings of the study revealed among others that secondary school principals in Anambra State do not engage in instructional supervision practices of observing classroom instruction to ensure curriculum coverage, monitoring teachers’ compliance to school schedules, meeting regularly with teachers to discuss instructional challenges and providing feedback to teachers after class observation. The study also found that secondar y school principals do not engage in adequate motivational practices to promote teachers’ instructional improvement for sustainable development in secondary education in Anambra State. Based on the findings, it was recommended that school administrators should always engage in instructional supervision practices by observing classroom instruction to ensure curricular coverage, monitoring teachers’ compliance to school schedules, meeting regularly with teachers to discuss instructional challenges and providing feedback to teachers after class observation among others. Conclusion was drawn.

KEYWORDS: principals’, management support practices, instructional improvement, sustainable development
INTRODUCTION

Principals’ by virtue of their position are the managers and the quality of managerial functions determine to a large extent their success or failure (Odumodu, 2011). Principals should as well provide teachers with needed management support to effectively function in their schools (Castller, 2010). Peretomode (2013), opined that management practices are the social interaction processes involving a sequence of co-ordinated events of planning, organizing, coordinating, appraising monitoring and controlling employed to use available resources to achieve a desired outcome in the fastest and most efficient way. Management support practices are integral part of management practices provided to enhance workers productivity. Nwite (2016) pointed out that management support practices include: the provision of supervision, motivation, professional growth and welfare. For the purpose of this study, management support practices in schools involve the provision of supervision, motivation, ensuring professional development of staff and application of other supportive management functions to improve instructional delivery for the attainment of school goals and objectives. Management support practices are geared towards providing a friendly climate for workers productivity. Supervising and motivating workers is central to management support practices.

According to Osakwe (2010), supervision is concerned with the provision of professional assistance and guidance to teachers geared towards the achievement of effective teaching and learning in the school. The duty of manager as a leader in the organization is to identify the strengths and weaknesses of their supervisees and other subordinates in order to guide and assist them professionally to achieve their targets and those of the organization as well. Burton, Carper and William (2011) summarized supervision as “efforts made by the school head to support teachers to become more effective in their job and equally access professional development on the job”. Clark (2015) on the other hand sees supervision as a task of improving instruction through regular monitoring and in-service education of teachers. Supervision is seen as a process of bringing about improvement in instruction by working with people who are working with pupils and students (Emetarom, 2007).

Instructional supervision, according to Okobia (2015) is a helping relationship whereby the supervisor guides and assists the teachers to meet the set targets. Instructional Supervision in this context can be defined as the technical monitoring and professionally guiding teachers and learners to achieve their goals thereby promoting instructional delivery within the school. Instructional supervision, being part of management support practices will not only provide professional assistance to teachers but will equally help to identify strengths and weaknesses in teaching and learning process for possible solutions. School managers and supervisors should be competent in identifying teachers’ needs and their sources of motivation to ignite their interest in quality teaching and learning.

Michaelowa in Akinfolarin and Ehinola (2014) sees motivation as the “willingness, drive or desire to engage in good teaching”. It is the desired force that compel individual to willingly perform certain tasks or behave in a particular manner. Teachers’ motivation is one of the important factors in realizing educational objectives by achieving high academic performance. Teachers are charged with other responsibilities such as guiding, counseling, disciplining students, managing classes and participating in curricular development panels other than teaching (Yuniah, Walter & Duke, 2015). Teachers should be rewarded for their unquantifiable efforts through prompt payment of salaries, promotion, involvement in decision making, professional development, due recognition, good welfare policies among others. Akinfolarin and Ehinola (2014) revealed in a study that provision of regular payment of salary and other remuneration by the head promotes the performance of academic staff. Principals should engage in motivational practices like prompt payment of salary and other remuneration, performance appraisal, provision of physical facilities, involvement in decision making, good relationship, promotion, welfare packages, and on the job development programs for growth to promote teachers productivity. Provision of management support practices by school principals are essential for teachers’ performance in building sufficiently motivated and effective teachers (Nwite, 2016). In other to have a sustainable teaching and learning process, it is important for principals as school managers to adopt suitable management support practices for instructional improvement.

Instructional improvement is about managerial inputs leading to progressive change in teachers’ instructional delivery. Akinfolarin and Rufai(2017) posit that instructional improvement is the act of making progress in instructional delivery for better academic achievement. The successful teaching and learning processes leading to outstanding academic achievement of students’ is an indication of instructional improvement. Instructional improvement involves the application of management practices and creating enabling school climate thereby, advancing teaching and learning process leading to student academic performance.
Instructional improvement and school goals can be realized through effective management support practices in the areas of instructional supervision, motivation and appropriate use of school resources. The rationale behind management support practices is to encourage and stimulate workers for better performance. Teachers should be given adequate support and enabling environment to increase their commitment to instructional tasks.

The concept of sustainable development has assumed much relevance not only to environmental and biodiversity issues but also to education practice (Akpan & Onabe, 2016).

Nwanekwe (2009) defined sustainable development as maintenance of a steady growth and improvement in the people’s ability and capacity, discipline responsibility and material well-being. It is the overall uninterrupted growth and well-being of the people in various aspects. Change and sustainable development occur in the education sector just like every other sector. There are emerging trend in all aspect of the economy which requires leaders and managers to adapt to this changing environment for sustainable development. Sustaining teachers’ instructional improvement in a functional secondary education is imperative towards the realization of educational goals. Effective supervision, motivational strategies, good relationship, professional development, involving staff in decision making, democratic environment and good welfare and incentives policies are components of management support practices. However, the attention of this study is on supervision and motivation.

STATEMENT OF THE PROBLEM

School administrators are expected to provide enabling environment through management support practices for improved teaching and learning. Negative indicators coming from secondary level of education over poor teachers performance on instructional delivery leading to low academic achievement of students is of great concern to stakeholders. It appears that principals do not effectively provide and adopt the appropriate management support practices for teachers in areas of instructional supervision and motivating teachers to improve their instructional delivery in schools. It is against this problem that this study aimed to determine principals’ management support practices to promote teachers’ instructional improvement for sustainable development in secondary education in Anambra State.

PURPOSE OF THE STUDY

The purpose of this study is to determine Principals’ Management Support Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria. Specifically, this study set out to determine:

1. Principals’ Instructional Supervision Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria.
2. Principals’ Motivational Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria.

RESEARCH QUESTIONS

3. What are Principals’ Instructional Supervision Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria?
4. What are Principals’ Motivational Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria?

METHOD

The study adopted a descriptive survey design and was conducted in Anambra State. The study population comprised 257 principals in public secondary schools in the State. No sampling was used due to the manageable size of the population. The instrument used for data collection was a structured 15 items researchers’ developed instrument titled; Principals’ Management Support Practices to Promote Teachers’ Instructional Improvement Questionnaire (PMSPTIIQ). The response format of the questionnaire was structured on a fourpoint rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) weighted 4, 3, 2 and 1 respectively. The face validation of the instrument was established by three experts, two in the Department of Educational Management and Policy and one in the Department of Educational Foundations (Measurement and Evaluation Unit), Faculty of Education, Nnamdi Azikiwe University University. The Cronbach alpha was used to determine the reliability of the instrument. Coefficient value of 0.84 was obtained. Data were analyzed using mean and standard deviation. The questionnaire were administered by the researchers together with five research assistants who were briefed on how to approach the principals. The mean responses were adjudged on the following basis of any mean score of
2.50 or above is taken to indicate agreement while any mean score that falls below 2.50 is taken as disagreement.

RESULTS

Research Question 1: What are Principals’ Instructional Supervision Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria?

Table 1: Mean scores and standard deviation ratings of principals’ instructional supervision practices to promote teachers’ instructional improvement in secondary education.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Observing classroom instruction to ensure curriculum coverage</td>
<td>1.34</td>
<td>0.77</td>
<td>Disagree</td>
</tr>
<tr>
<td>2.</td>
<td>Checking of teachers’ lesson plan and lesson notes for possible</td>
<td>3.68</td>
<td>0.34</td>
<td>Agree</td>
</tr>
<tr>
<td>3.</td>
<td>Checking teachers record of work done to monitor their progress</td>
<td>2.59</td>
<td>0.93</td>
<td>Agree</td>
</tr>
<tr>
<td>4.</td>
<td>Monitoring teachers’ compliance to school schedules</td>
<td>2.12</td>
<td>0.46</td>
<td>Disagree</td>
</tr>
<tr>
<td>5.</td>
<td>Monitoring teachers’ use of instructional materials</td>
<td>2.75</td>
<td>0.90</td>
<td>Agree</td>
</tr>
<tr>
<td>6.</td>
<td>Meeting regularly with teachers to discuss instructional challenges</td>
<td>2.39</td>
<td>0.22</td>
<td>Disagree</td>
</tr>
<tr>
<td>7.</td>
<td>Provision of feedback to teachers after class observation</td>
<td>2.22</td>
<td>0.49</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

Grand Mean and Standard Deviation 2.44 0.59 Disagree

Items 2, 3 and 5 on table 1 are above the mean score of 2.50 which indicate that respondents’ agreed with the statements while items 1, 4, 6 and 7 mean scores are below 2.50 which indicate that respondents’ disagreed with the statements. The grand mean score of 2.44 which is below the accepted mean score of 2.50 indicates disagreement in principals’ instructional supervision practices to promote teachers’ instructional improvement for sustainable development in secondary education in Anambra State.

Research Question 2: What are Principals’ Motivational Practices to Promote Teachers’ Instructional Improvement for Sustainable Development in Secondary Education in Anambra State, Nigeria?
Table 2: Mean scores and standard deviation ratings of principals’ motivational practices to promote teachers’ instructional improvement in secondary education.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Recommending teachers for promotion as at when due</td>
<td>2.54</td>
<td>0.68</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Acknowledging teachers’ instructional achievement openly</td>
<td>2.25</td>
<td>0.33</td>
<td>Disagree</td>
</tr>
<tr>
<td>10</td>
<td>Involving teachers in decision making on instructional progress</td>
<td>2.67</td>
<td>0.50</td>
<td>Agree</td>
</tr>
<tr>
<td>11</td>
<td>Providing instructional facilities to enhance instructional delivery</td>
<td>2.48</td>
<td>0.77</td>
<td>Disagree</td>
</tr>
<tr>
<td>12</td>
<td>Establishing good relationship with teachers</td>
<td>2.93</td>
<td>0.51</td>
<td>Agree</td>
</tr>
<tr>
<td>13</td>
<td>Facilitating prompt payment of salary and allowances</td>
<td>1.41</td>
<td>0.88</td>
<td>Disagree</td>
</tr>
<tr>
<td>14</td>
<td>Providing adequate chances for professional growth and research development</td>
<td>2.95</td>
<td>0.16</td>
<td>Agree</td>
</tr>
<tr>
<td>15</td>
<td>Awarding teachers with impressive titles to boost their morale</td>
<td>1.22</td>
<td>0.75</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

**Grand Mean and Standard Deviation**

2.31 0.57 Disagree

Items 8, 10, 12 and 14 on table 2 are above the mean score of 2.50 which indicate that respondents’ agreed with the statements while item 9, 11, 13, and 15 mean scores are below 2.50 which indicate that respondents’ disagreed with the statements. The grand mean score of 2.31 which is below the accepted mean score of 2.50 indicates disagreement in principals’ motivational practices to promote teachers’ instructional improvement for sustainable development in secondary schools in Anambra State. The grand mean of 2.44 which is taken as disagreement indicate that secondary school principals in Anambra State do not adequately engage in instructional supervision practices to promote teachers’ instructional improvement for sustainable development in secondary education.

**DISCUSSION**

The findings on table 1 show that secondary school principals in Anambra State do not engage in instructional supervisory practices of observing classroom instruction to ensure curriculum coverage, monitoring teachers’ compliance to school schedules, meeting regularly with teachers to discuss instructional challenges and providing feedback to teachers after class observation. This finding is similar to that of Nwite (2016), which revealed that failure of the school principal to effectively supervise classroom instruction negatively impacts on teaching and learning as well as curriculum implementation. However, checking of teachers lesson plan and lesson notes for possible guidance, checking teachers’ record of work done to monitor their progress and monitoring teachers’ use of instructional materials are instructional supervision practices, should be engaged in by principals’ to promote teachers’ instructional improvement for sustainable development in secondary schools in Anambra State. The grand mean of 2.44 which is taken as disagreement indicate that secondary school principals in Anambra State do not adequately engage in instructional supervision practices to promote teachers’ instructional improvement for sustainable development in secondary education.

Findings on table 2 show that secondary school principals in Anambra State do not engage in motivational practices of acknowledging teachers’ instructional achievement openly, providing instructional facilities to enhance instructional delivery, facilitating prompt payment of salary and allowances and awarding teachers with impressive titles to boost their morale to promote instructional improvement. This finding is in agreement with the earlier report of Akinfolarin and Ehinola (2014) which concluded that the school head fairly provides regular payment of salary and other remuneration to lecturers (teachers) and do not appreciate their lecturer’s work openly among others. Prompt payment of teachers’ salaries is key to their extrinsic motivation for productivity. However, motivational practices of recommending teachers for promotion as at when due, involving teachers in decision making on instructional progress, establishing good relationship...
with teachers, and providing adequate chances for professional growth and research development should be engaged in by principals’ to promote teachers’ instructional improvement.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

1. School administrators’ should always engage in instructional supervisory practices by observing classroom instruction to ensure curriculum coverage, monitoring teachers’ compliance to school schedules, meeting regularly with teachers to discuss instructional challenges and providing feedback to teachers after class observation.

2. School administrators and managers should engage in motivational practices of acknowledging teachers’ instructional achievement openly, providing instructional facilities to enhance instructional delivery, facilitating prompt payment of salaries and allowances and awarding teachers with impressive titles to boost their morale for instructional improvement.

CONCLUSION

The poor academic performance of secondary school students in Nigeria due to inability of teachers to adequately carry out their instructional delivery task is worrisome. This study concluded that instructional supervision practices are not adequately engaged in by secondary school principals’ in Anambra State to promote teachers’ instructional improvement. The study also concluded that secondary school principals’ do not engage in adequate motivational practices for teachers’ instructional improvement in secondary schools in Anambra State. Providing management support for workers is crucial as they are the tools for achieving productivity in any enterprise. Management support practices give workers the sense of being part of the organization, they feel loved and cared for as such, put in their best towards organization’s growth and development.

REFERENCES


TEACHING COMMUNICATIVE SKILLS WITH AUTHENTIC VIDEOS IN EFL CLASSES

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Student of Andijan State University, Andijan, Uzbekistan

ABSTRACT
The purpose of this article is to investigate the role of using video resources on improving communicative skills. Students can develop their communicative skills including grammar competencies, pragmatic, discourse, listening and speaking using authentic video as well. Communicative skill improvements among the intermediate and advanced students were much greater than those of the low proficiency group.

KEY WORDS: videos, grammar, competence, discourse, speaking, listening, language, student, activity, method, knowledge.

INTRODUCTION
The research is dedicated to the study of the Teaching communication skills with authentic video in EFL classes which presents a certain interest both for theoretical investigation and for practical usage. We have the full basis to approve that many teachers have contributed to study in different methods and with new technologies in order to improve students’ knowledge. The investigation is explained on the one hand by the profound interest in learning the features of the teaching with authentic videos in EFL classes which are widely used to perform communicative skills of English language, on the other hand by creating activities such as listening, reading, writing and speaking, speaking, grammar competence, discourse and an activity to improve vocabulary with visual materials.

It is suggested that the language teachers and learners get in using audio-visual aids in teaching and learning the English language, as well as to show that by using the appropriate video material the teachers can improve and ensure student- centeredness, have their students interested and engaged in activities, be more active, motivated and confident in their communicative language competence. The theoretical position of the work can be used in different EFL classes. Besides that, they may be used in delivering individual classes with related materials, and the practical results and conclusion can be used while teaching in different classes and checking their skills using authentic video materials.

MATERIALS AND METHODS
To diagnose students’ listening, reading, writing and speaking proficiency among groups, the IELTS test scores, which students took on campus, were submitted before the course started. As seen in, the result of the listening, reading, writing and speaking comprehension portion of the IELTS was 251.90 (SD=24.07) in the low level group, 317.59 (SD=21.20) in the intermediate group, and 372.86 (SD=23.31) in the advanced group.

The main method, which is used in the present research, is analyzing the observation forms, questionnaires and the learners’ pre- and post-evaluation with further comparison of the last ones. Type of research is a combination between qualitative and quantitative. This study consists of 86 participants who enrolled in English listening, reading, writing and speaking, writing and reading courses for the summer session at Andijan State University, 2020. Originally, the number of enrolled participants was 90. However, four dropped the class, resulting in a slightly smaller sample size from which to collect data. Students were divided into three classes according to their IELTS scores since the number of students was limited to 30. The majority of students included English Literature. All of them had over nine years of English learning before joining the course. The participants were divided into three levels according to their IELTS band scores. Class A included students at the...
advanced proficiency level, Class B was reserved for the intermediate proficiency level, and Class C for the low proficiency level for this study.

Three proficient levels of participants

<table>
<thead>
<tr>
<th>Grade</th>
<th>Low</th>
<th>Intermediate</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Post-test (Mean)</td>
<td>Post-test (Mean)</td>
</tr>
<tr>
<td>1</td>
<td>29</td>
<td>25(86.2%)</td>
<td>25(86.2%)</td>
</tr>
<tr>
<td>2</td>
<td>29</td>
<td>1(3.4%)</td>
<td>3(10.3%)</td>
</tr>
<tr>
<td>3</td>
<td>29</td>
<td>3(10.3%)</td>
<td>1(3.4%)</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
<td>0(0.0%)</td>
<td>0(3.4%)</td>
</tr>
</tbody>
</table>

Abroad

| Yes | 29 | 2(6.9%) | 2(6.9%) | 3(10.7%) |
| No  | 27 | 27(93.1%) | 27(93.1%) | 25(89.3%) |

The low-level group had 25 freshmen, 1 sophomore, and 3 juniors, and two of them experienced living abroad. The intermediate level group included 25 freshmen, 3 sophomores, and 1 junior. This group contained two students living in other countries. The advanced level group was comprised of 23 freshmen, 3 sophomores, 1 junior, and 1 senior, and three of them had been abroad to study English, as indicated in [Table 1]. All participants were instructed to improve their listening, reading, writing and speaking skills using videos. Every session, they were exposed to various video materials. Before and after the course, all groups completed identical tests drawn from a practical IELTS book.

DISCUSSION AND RESULTS

Having collected the data from the tests and survey, the analysis was carried out to find the answers to the research questions formulated for the present study. To investigate the effect of using videos on listening, reading, writing and speaking, reading, writing and speaking paired sample t-tests between the pre- and post-tests were conducted. Descriptive statistics were used to summarize the means and standard deviations. The result of a paired sample t-test in the low-level students

Descriptive Statistics of Listening, reading, writing and speaking Test Scores by Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Post test</th>
<th>Post - test (Adjusted Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Mean</td>
</tr>
<tr>
<td>Low</td>
<td>29</td>
<td>12.48</td>
</tr>
<tr>
<td>Intermediate</td>
<td>29</td>
<td>14.93</td>
</tr>
<tr>
<td>Advanced</td>
<td>28</td>
<td>16.25</td>
</tr>
</tbody>
</table>

a - Covariates appearing in the model are evaluated at the following values: Pre-test=13.16
An IELTS was conducted to investigate whether the test scores among the three levels were significantly different. This analysis was used with the adjusted mean scores as dependent variables, and the pre-test scores as a covariate. The results of descriptive and inferential statistics on the listening, reading, writing and speaking scores are presented above. The study elaborated on the effectiveness of viewing videos with subtitles on EFL learners’ vocabulary acquisition. Selecting the sample from Andijan State University, they were given a test compiled from Standard English Test to evaluate their level of proficiency. The scores taken from the test helped in realizing that there was no significant difference between the proficiency level of the control and treatment groups. Both control and treatment groups were given similar teaching materials and procedure; however, the video being viewed by the treatment group was presented with English subtitles. With reference to the statistical results, it was significantly proven that the presence of subtitles on the videos helped learners better acquire the words used in the conversations.

CONCLUSION

The whole period of conducting the research has helped us realize that teaching language is an ongoing and challenging process. It requires a teacher to constantly work on her/himself, get abreast of every innovation in the field of linguistic methodology and bring every new method into the classroom by thoroughly selecting the most effective and the most productive ones. Similarly, selecting and adapting course materials is a decisive step in designing a language course. The target research is my first official investigation paper conducted by me as a young beginning EFL teacher. It gave me the confidence to experiment with any method of language teaching in my language classes and not to be afraid to make ongoing corrections and changes when needed. We have also learnt that every group of students is specific with its features that could necessarily be taken into account if productive results are desired. Every inevitable impeding factor or problem should be anticipated.

Through the research, we tried to act according to the research plan constructed by me beforehand. However, anyways, some factors made me periodically get off the track. Those were insufficient amount of time. Nevertheless, we were lucky that we worked with such obedient and supporting students. Knowing the teaching was a part of my research, they helped us as much as they could. They felt the significance of each step in our research. That is why we did not even once had a case when any of our student missed either pre- or post-test results. We would like to thank them and the head of the study center West Mood for helping us to do this research.

REFERENCES

TASK BASED LEARNING IN TEACHING INTEGRATED SKILLS

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Botirova Zuvayda²
²English Teacher of School №15, Balikchi, Andijan, Uzbekistan

ABSTRACT
This article includes the methods of teaching integrated skills with the help of Task-based activities, types of Task-based learning. It is also can be used as a guide book for the further teachers who have difficulties in teaching Integrated skills and the importance of having Task-based learning in teaching Integrated skills, the comparison of several opinions, articles of different teachers and linguists in English, advantages and disadvantages of task based learning in teaching integrated skills.

KEY WORDS: methods, skills, activities, integrated skills, language, meaning, instruction, research, material, handout.

INTRODUCTION
In a practical sense, English consists of the four primary skills of listening, reading, speaking, and writing. This also includes associated or related skills such as knowledge of vocabulary, spelling, pronunciation, syntax, meaning, and usage. All above-mentioned skills are included in Integrated Skills. The Integrated-Skill approach exposes the English language learners to authentic language and challenges them to interact naturally in the language. Learners rapidly gain a true picture of the richness and complexity of the English language as employed for communication.

There are two types of Integrated-Skill instruction. They are Content-based language instruction and Task-based instruction. The first of these emphasizes learning content through language, while the second stresses doing tasks that require communicative language use. The Content-Based approach pays much more attention to the content itself, to its meaning and grammar. The Task-Based learning approach includes most communication. Both of these benefit from a diverse range of materials, textbooks, and technologies for the ESL or EFL classroom. In Task-based instruction, students participate in communicative tasks in English. Tasks are defined as activities that can stand-alone as fundamental units and that require comprehending, producing, manipulating, or interacting in authentic language while attention is principally paid to meaning rather than form.

MATERIALS AND METHODS
According to reasons mentioned in Statement of purpose, the researchers try to lead the lesson among the learners of English of different ages and different nations and different departments. The subjects of the research were students from Andijan State University of the first course and of different departments. There was a group of Intermediate level. This group had integrated skills in their curriculum system. The materials are questionnaires, teaching materials from the Internet, handouts from the book “Innovation” and different teaching activities.

During the lesson, which is based on Content-based learning the researchers, are going the subjects to sit as “horse shoe” and have a deductive method, but during the Task-based to sit as “separate table” and have inductive method. The researchers think that seating arrangements also influence on subjects. During the second lesson, the researchers try to pay much more attention to using Communicative approach and direct method. While improving the listening skill the researchers try to use Audio-lingual method. The equipment: tape-recorder, head-phones, notebook.
In order to lead a lesson the researchers ask from the teacher of the group the topic of current month. The reason why they did so is she wanted to take into consideration the curriculum system as well and did not want to waste the time of the lesson by giving them not related topics. The first group the researchers labeled with this Group those who study in the third department. The level of students were expected to be the same, but some of them are weaker and at lower level. Out of 13 students, there are 3 males and 10 females. The researchers led the lesson on 8th of January at second class.

<table>
<thead>
<tr>
<th>№</th>
<th>Student’s name</th>
<th>Group</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Parpiyev Elbek</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
<tr>
<td>2</td>
<td>Mamasoliyeva Shohista</td>
<td>404 A</td>
<td>Mrs. Zuvayda</td>
</tr>
<tr>
<td>3</td>
<td>Khashimova Kamola</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
<tr>
<td>4</td>
<td>Tadjiakhmedova Dilafruz</td>
<td>404 A</td>
<td>Mrs. Zuvayda</td>
</tr>
<tr>
<td>5</td>
<td>Chimberdieva Saida</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
<tr>
<td>6</td>
<td>Tulanova Shakhzoda</td>
<td>404 A</td>
<td>Mrs. Zuvayda</td>
</tr>
<tr>
<td>7</td>
<td>Patidinova Davlatoy</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
<tr>
<td>8</td>
<td>Abdurakhimova Odina</td>
<td>404 A</td>
<td>Mrs. Zuvayda</td>
</tr>
<tr>
<td>9</td>
<td>Ikromjonova Nozima</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
<tr>
<td>10</td>
<td>Arslonova Khulkaroy</td>
<td>404 A</td>
<td>Mrs. Zuvayda</td>
</tr>
<tr>
<td>11</td>
<td>Obidov Shermukhammad</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
<tr>
<td>12</td>
<td>Abbasov Anvarjon</td>
<td>404 A</td>
<td>Mrs. Zuvayda</td>
</tr>
<tr>
<td>13</td>
<td>Erkinboeva Bakhtigul</td>
<td>404 A</td>
<td>Mrs. Nasibahon</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

There were considerable changes in the results after some lessons based on both approaches in all groups. The researchers could get the effect of both approaches and identify which of them was the best one and which was more effective. Before doing the survey, the researchers did not expect that she would get such results. The tasks were a bit difficult, especially listening tasks. In both approaches, the researchers paid their attention to developing Speaking and Listening skills. As the researchers satisfied from the results, it can be seen that she achieved the target goal. Because during the session all students were interested in the subject. They all made some progress and their post-speaking and post-listening became much better than it was before. It was obvious that such changes happened not only because of the lesson on task based learning in teaching integrated skills, but there were some other affective factors, such as good instruction, more experience and different approaches.

<table>
<thead>
<tr>
<th>№</th>
<th>Student’s name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Parpiyev Elbek</td>
<td>86</td>
</tr>
<tr>
<td>2</td>
<td>Mamasoliyeva Shohista</td>
<td>83</td>
</tr>
<tr>
<td>3</td>
<td>Khashimova Kamola</td>
<td>80</td>
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<tr>
<td>4</td>
<td>Tadjiakhmedova Dilafruz</td>
<td>82</td>
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<tr>
<td>5</td>
<td>Chimberdieva Saida</td>
<td>84</td>
</tr>
</tbody>
</table>
The subjects got these marks according to the following criteria: the researchers put 76 for not participating at the lesson and interrupting others while they are speaking. In addition to this, the student tried to make fun. 79 scores were put for participating passively and making noise during the class. 80 was evaluated the student who tried to work, however because of not knowing enough words. 81 scores got the subject, who made mistakes during the task. The student got 82 for thinking long and for making grammatical mistakes. The researchers put 83 for participating actively, but for hesitation in doing them task. 84 scores got the subject, who did everything, but for making simple mistakes in speech. 85 were put for the student, who worked hard and participated actively during the lesson. The researchers evaluated 86 scores, who was the most active and was attentive during the lesson.

CONCLUSION

The topic of current research plan focuses on Task-based learning in teaching Integrated Skills among EFL learners. As a subject of research plan, the researchers chose students who study at Andijan State University, consequently students from first course of different departments, in order to contrast and compare their results the researchers decided to conduct her study on students of different departments. One of the main goals of this experiment was to attempt, to find a way to teach speaking and listening through task-based learning and what kind of impact would the researchers have with the help of this task. The first purpose why we learn a language is to speak in it in order to feel more confident while coming across with a foreigner and express our opinion about this or that topic. While speaking of course we listen and vice versa. In researchers’ opinion, speaking and listening skills are more necessary in comparison with reading and writing. That the researchers conducted was very valuable experience for both my personal and professional development. The researchers learned what a task-based learning in this paper and should consist of, and how the researchers can interpret the statistical data - it is of great importance for them.

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ORIENTAL AND MICROCOMPARATIVE STUDIES

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ABSTRACT
This article investigates the issues of Renaissance and works of Alisher Navoi on the basis of articles of N.I. Konrad and V.M. Zhirmunsky. Studying the evolution of views of Russian scientists of the XX century is a new and relevant issue of modern comparative studies. Analysis of scientific researches of Russian scientists allows solving a complex of historical-literary issues.

KEYWORDS: microcomparative studies, Alisher Navoi, Turkish studies, V.M. Zhirmunsky, N.I. Konrad, Renaissance, East, West.

INTRODUCTION
The literature of any nation is an integral part of world artistic reflection, as the interest of nations in literature and reading of works are considered as the main criteria that determine the importance of imaginative literature. The fame of one or another nation in the world is primarily associated with the extent of the dissemination and recognition of the culture, art and literature of this nation. A comparative study of Uzbek classical literature in Russian Oriental studies of the XX century is a study of the history of national formation. Such development is equally significant for both - Russian and Uzbek nations. Comparativistics provides an opportunity for comparative studies of phenomenon such as the impact of socio-cultural factors on science, different ways of approaching the literary text, judgments on the history and theory of Uzbek classical literature, analysis and interpretation in Russian Turkology, translations, literary and aesthetic views in published and archival materials. The volume of published and unrealized works on oriental literature shows that collection and analysis of valuable information have great importance for science. However, there are still many unexplored gaps in research activities of Russian Orientalists.

Studying the evolution of views of Russian scientists of XX century – is a new and relevant issue of modern comparative studies. The comparative methodology of the analysis of scientific reality involves the classification of objects of comparison in accordance with two main dimensions. At the microcomparativist level, the subject of comparison can be texts of certain individual scientists (in terms of the evolution of views or opinions); texts of various scientists to clarify their views on the same problem. At the macrocomparative level, the concept of schools and areas of science are compared.

In contemporary literature, 4 typical situations or conditions of comparative analysis are determined: comparison of phenomena in one field and period of time (1), in the same environment, very similar situations, but at different periods of times (2), at the same period of time, but existing in different conditions.

1 V.P. Kotenko, 2007, “Komparativistikanovoenapravleniemetodologianализnauchnoydeyatelnostiirazvitvityanauki” [“Comparative studies a new direction in the methodology of analysis of scientific activity and the development of science”], Published by: Bibljosfera, #3, p.23
environment and field (3), comparison of different environment, fields and period of time.

Using the scientific views of scientists of one field and period of time as an example, the researcher will address comparative analysis on the same problem: the issues of Renaissance and works of Alisher Navoi – the great mastermind of the East.

**RESEARCH METHODS**

Objectivity, logic, analysis, generalization, synthesis, comparative analysis

**Main part**

V.M. Zhirmunsky (1891-1971) and N.I. Konrad (1891-1970) are well-known “titans” of Russian science, whose works objectively contributed to the growth of the study of the history and literature of nations of the East, interconnections, and interactions of national research literature. The interconnections and interactions of national literature take a significant place in the interests of scientists.

According to his methodological views, V.M. Zhirmunsky is certainly close to N.I. Konrad, but their opinions differ regarding the analysis of above mentioned issue. In some cases, there is a collision of paradigms. The eminent orientalist left a classic three-step division of the history of human being, pierced by horizontal stages of transitions and at the same time accurately pointed out the difference in cultures of various nations while showing their global similarity. Precisely, the concept of the “World Renaissance” plays a crucial role for him as the cultural prerequisite for the occurrence of a new type of society.

In 1964, an article “Alisher Navoi and the issues of Renaissance in the literature of the East”, dedicated to the great founder of Uzbek literature was published, but as the period of writing article, Zhirmunsky designated 1947 (the article was republished several times, in 1967 and 1979). Alisher Navoi, the great Uzbek poet, mastermind, statesman, was an outstanding individual. He is the author of about thirty collections of poems, major narrative poems, prose compositions and scientific treatises that comprehensively reveal the spiritual life of Central Asia of the XV century.

Furthermore, Navoi is also well-known as an author of many works in the fields such as philosophy, literature studies, linguistics and history. Distinctively, all his works was written in Uzbek language in spite of his time literature was dominated by Farsi (Persian language). It is not surprising that Zhirmunsky, who was also distinguished by a diversity of interests, was attracted by the extraordinary personality of Navoi, who was a true representative of the Eastern Renaissance and reminded with his universalism of the great artists of the Renaissance, such as Leonardo da Vinci, Albrecht Durer, Machiavelli and others. The poetry of Navoi was studied continuously and extensively. Especially, the works of Russian and Uzbek scientists’ should be mentioned. These are N.I. Konrad, E.E. Bertels, Zhirmunsky and others.

The broad views of V.M. Zhirmunsky in the analysis, revealed the following conclusions:

1. Central Asia in the XV century under Timurids reached a level of development very closely corresponding to the era of the early Renaissance in Italy.
2. Navoi, like his Western contemporaries such as Leonardo da Vinci, acts for us as a comprehensively developed personality, combining art, philosophical theory and social practice in his universalism.
3. The humanistic ideal of human being is fully revealed in his poem “Farhad and Shirin”. All the motifs of the poem were widely popular in medieval knightly novel.
4. The writings of Alisher Navoi, “The Judgment of Two Languages,” correlates the treatises of Dante and Du Belle, as a program of high classical poetry in the native language, as a defense of the right of the native language to become the language of classical literature.
5. Sufism becomes for Navoi the same peculiar "school of free-thinking" as for the poets of the Western European Renaissance, it is the natural philosophy of the Florentine Neo-Platonists.
6. The tremendous figure of Alisher Navoi is not isolated in world literature. The works of the great founder of Uzbek literature directly correlates the
advanced ideas of his Western like-minded poets and masterminds of the Renaissance.3

As N.I. Konrad wrote, “this great poet, poet-mastermind, as he is fairly called who belongs to the large, ethnically disparate world, become a canonical writer of Uzbek poetry, founder of Uzbek literature”. N.I. Konrad, being a supporter of complex oriental studies discussing the issue comprehensively, came up to the following conclusions:

1. All the great people of antiquity are present and acting in the works of Navoi, his Renaissance spirit manifested itself here.
2. The poems of Alisher Navoi assist understand better the difference between Renaissance poems and poems of the Middle Ages. The heroes of the Renaissance poems are depicted in romantic nature, while the Middle Ages are realistic.
3. Navoi belongs to a huge, so diverse world, the poet whose heroes are anyone: Farhad - the Chinese, Shapur - the Persian, Shirin - the Armenian, Kays - the Arab. It is very curious that the heroes of the poets describe their charms themselves. E.g. Shirin in the letter to Farhad:
   You will only remember my hair
   Will the whole world blacken in your eyes
   Will you imagine my two roses
   Will you shed the pink tears

4. In the Renaissance world of Navoi, we find the idea of cognition by the mind and the idea of cognition by intuition.
5. Individual nations are members of our community. Alisher Navoi is our common heritage.
6. Navoi and his teacher Jami were well-versed in music. In this regard, his work “Khamsa” (Quintuple) can be approached from the musical side. Major and minor keysare not distinguishable in the poems of the poet.
7. I wanted Navoi not only be honored, not only be studied but simply read. Read as the poet who we need now, in our present life. We say great thanks to the Uzbek nation who brought us such a poet as a gift6.

CONCLUSION

The issue of the Eastern and Western Renaissance is very common and has many points of view. The above mentioned conclusions of V.M. Zhirmunsky claim some dependence of the East on the West. N.I. Konrad supports the idea of the Eastern Renaissance and is more inclined towards the spiritual heritage of Navoi. V.V. Bartold believes that in the East linguistic borrowing concerned only science, but not culture as a whole, as there were own traditions of wide education and aesthetic development7. As A.A. Gadzhiev notes, it was not antiquity that made artists renaissance, but their renaissance nature made them turn to antiquity8.

An analysis of the scientific research of Russian scientists within the framework of microcomparative studies creates an opportunity to solve a whole complex of historical and literary issues. There is the possibility of a more in-depth and accurate penetration into the fundamental specificity of their views on similar problems.

According to N.I. Konrad, “comparative studies are not even important for the purposes of comparative literature, but precisely, for the history of national literature".

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A COMPREHENSIVE APPROACH FOR THE REVITALIZATION OF HISTORICAL GARDENS: THE CASE STUDY OF ANTONIADIS IN ALEXANDRIA, EGYPT.

Hoda Gamal,
Dr. Maye Yehia,
Dr. Amal Fathahllah

ABSTRACT
Historical gardens are important touristic landscapes that have a great impact on the quality of life of the communities. Currently public gardens are neglected in Alexandria and there are no plans for designing new ones. The research is examining the case of Antoniadis garden, one of the most valuable historic gardens of the city. The methodology consists of the following stages: a theoretical review of the guidelines related to the following fields: sustainable landscape, garden design, garden tourism and the preservation of historic gardens. The Antoniadis Garden is analysed based on the criteria deduced from the literature review, the questionnaire and interviews. A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is developed to explain the potential, issues and challenges of Antoniadis. Finally, a framework that integrates all the above-mentioned guidelines and the SWOT analysis is developed to reach a comprehensive approach that can be implemented on similar cases with appropriate adaptation.

INDEX TERMS— Revitalization; Sustainability; Garden Tourism; Antoniadis, Alexandria.

1. INTRODUCTION
Effective use of green spaces provides a variety of environmental and social benefits, as well as economic returns on communities. Concerning the environmental aspects, Trees, for instance, act as filters for pollution and reduce infections of chronic diseases (Bradshaw, Hunt, Walmsley, 1995). Researchers also found that the cooling effect of green spaces can be felt up to 100 m away from the site (Forest Research, 2016). Concerning water management, the soil system and vegetation are highly permeable and capable of absorption of substantial rainfall that leads to reducing the volume and rate of run-off. On the other hand, green surfaces and biological systems enable the environment to become self-sustaining. Besides, green spaces encourage communities to grow their own food.

Regarding the social aspect, gardens have a significant impact on quality of life and wellbeing. Being in open-air green spaces relieve stress and encourage healthy activities and sports. These areas also give a significant opportunity for people to interact with each other, increase people awareness of the importance of nature and biodiversity and enhance sustainable behaviors and enhance their sense of belonging. Besides, open green areas provide extraordinary opportunity for children and the youth to learn about nature.

Historic gardens comprise elements of cultural value increase sense of identity and pride of communities and encourage cultural activities. On the other hand, neglecting gardens and parks leads to anti-social behavior and vandalism.

As to the economic benefits of gardens, it is recognized that they increase property values of their surrounding if these green open spaces are well-managed and well-maintained. If they are renewed and developed, gardens also generate job opportunities and attract touristic activities and can host a great variety of events.
For all the above-mentioned social, environmental, and economic aspects, it is extremely important to restore deteriorated historical gardens. The aim of this paper is to formulate an integrating and comprehensive tool for helping decision-making processes in revitalizing historical gardens. This can be a useful framework for encouraging cross-disciplinary working, instead of conventional guidelines at the conceptual level that proves impossible to operationalize.

2. METHODOLOGY

Files To reach a comprehensive framework for the analysis of the historical garden of Antoniadis as a case study: an in-depth understanding of the different potentials and constraints of the garden was required. The information was collected using three means: firstly, the analysis of the principles of Sustainable Landscape and the design guidelines related to garden elements. Secondly, guidelines that concern the management of the garden to achieve garden tourism were identified and ICOMOS guidelines for preservation the historic garden were determined. The SWOT analysis of Antoniadis was developed based on the above-mentioned guidelines and integrated visitors’ needs and degree of satisfaction as an essential aspect. In a broad sense, taking into consideration the well-being of the citizens with respect to future generations’ needs and to environmental conservation is a crucial issue for achieving sustainability of cities. Therefore, the paper developed a structured survey questionnaire. The aim is to explore the different potentials of Antoniadis, to identify the reasons of its deterioration, the extent of deterioration, and the consequences on the garden value. The questionnaire was addressed to two main groups: the visitors and the employees of the gardens (administrators, gardeners, and so on). The sample of the study is not totally representative of the population but it is an exploratory qualitative approach focusing on these two groups. The total number is 100 respondents. After that, it was possible to formulate realistic and applicable recommendations for the revitalization of the historical gardens similar to Antoniadis gardens.

3. PRINCIPLES OF SUSTAINABLE LANDSCAPE

Based on the various environmental, social, and economic benefits of gardens reviewed earlier, it is important to understand the principles of sustainable landscape. The landscape structure should support the ecological, social and economic process that required while maintaining the institutional requirements (Opdam et al., 2006: Antrop, 2006). Based on the review of selected studies elaborated by Thompson and Sorvig (2008), Klett and Cummins (2013) and El-Barmelgy (2013), the paper classified and compiled the principles of sustainable landscape under the four following pillars and specific principles:

- The Environmental dimension: includes keeping the site healthy, healing injured sites, supporting living adaptable materials, respecting the natural water patterns, supporting wildlife, and considering local climate.
- The Socio-cultural dimension: includes considering people satisfaction and priorities, using lighting efficiently, enhancing soundscape and reducing noise through planning and accentuating the aesthetic values.
- The Economic dimension: includes considering the cost of energy and studying the economic feasibility and benefits by efficient management that protects natural assets.
- The Institutional dimension: involving all stakeholders in decision making, including the community with coordination and follow up, and applying integrated management.

4. DESIGN GUIDELINES RELATED TO GARDEN ELEMENTS

After this account of principles of sustainable landscape, it is essential to understand the design guidelines of gardens to deduce appropriate strategies. These guidelines are based on various reports and adapted to the Alexandrian context by the researchers (Planning-and-Development-Agency, May 2017). These guidelines concern:

- Spatial organization: how the activities are organized inside the garden and focus on the best relation between zones. The design should allow flexibility and safety for users to encourage social interaction.
- Circulation system: gardens should have well connected circulation system to provide effective means to accommodate all types of moving through the park including: walking, cycling, using vehicles, and parking facilities. The park must be provided with connected and clear pedestrian network. The material of paths and vehicles streets should be taken into consideration. Separation between walking, cycling, and vehicles lanes for the safety of users is required. All aspects of suitable movement for the people with special needs should be provided. Finally, the parking location and its capacity should be suitable to visitors’ number.
- Public facilities: The service area of the facilities must be taken into consideration. All types of services such as restrooms, mini-markets, cafes, spas, gymnasium, and visitors’ center must be provided according to visitors’ needs and must be well-distributed throughout the garden’s area.
- Landscape: Hard landscape elements like benches, fences, bins, playing equipment, signage, and lighting must be well designed as to reach the best relation between them, as well as the selection of suitable types, materials, heights, and their suitable distribution. Soft landscape elements such as trees, shrubs and lawn and their irrigation system should be taken into consideration, as well as their types and functions, smells and colors. The designer should be aware of the types of trees and shrubs; if they are deciduous or evergreen to reach to the best usage. A sustainable irrigation system must be used and it must reach to 100% of the green surface.
- Topography: the topography of the park should be reducing soil disturbance, the minimum slope of planted area should be 2%, and the hard court surface should be graded at 1%. Besides, the natural slopes of the landscape should be re-
5. GUIDELINES FOR GARDEN TOURISM

Pearce (1991) shows the following definition for tourist attraction ‘A tourist attraction is a named site with a specific human or natural feature which is the focus of visitor and management attention’ (Connell, 2002). Understanding the visitor attractions and determining its relation to the visitor experience can improve the garden as a recreo-touristic destination. The following guidelines of sustainable garden tourism include management and marketing strategies:

- Actors of management: engaging all the community councils and administrators and determining an appropriate management plan.
- Visitor information: recording all the visitor information including number, behavior, places of gathering, when they go there, their needs and the main problems. In short, it is about understanding the relation between the visitors and the garden.
- Public facilities: providing the facilities that cover visitors’ needs and that are suitable for the garden content; how they are arranged inside the garden and their location.
- Education facilities: improving the research centers functions and providing programs for all age categories to enhance their knowledge about nature and sustainability.
- Events: encouraging and supporting all types of events, entertainment, and educational activities that respect the content of the garden.
- Security and safety: protecting the garden and the sensitive sites, connecting spaces together visually, best distribution of the lighting system and avoiding dark spots, enhancing the safety factor, providing security cameras and security team (Benfield, 2013).
- Human resources: engaging the community with the garden and enhancing feeling of belonging and responsibility towards the garden, providing career opportunities and providing volunteering programs.
- Marketing methods: enhancing the use of local products inside the garden, providing marketing operations, increasing local economic contribution from tourism, and using all available media in advertising (Connell, 2002).

6. THE HISTORIC DIMENSION: ICOMOS GUIDELINES

The historic garden is an architectural composition whose constituents are primarily vegetal and therefore living, which means that they are perishable and renewable.”(ICOMOS,1981). According to the International Council on Monuments and Sites (ICOMOS), historic gardens must be governed by specific rules, as specified in the Florence Charter of 1981. These guidelines can be summarized as the following:

- During maintenance or conservation of the historical garden, the whole garden with its features must be dealt simultaneously, as dealing with only one part would damage the unity of all.
- Historical gardens need continuous maintenance as vegetal is its principal material so its preservation is in a variable condition and requires both immediate replacements if it is necessary and a long-term programme of periodic restoration.
- Any permanent or movable architectural, sculptural, or decorative features, which are within the garden components, must be removed or replaced only if it is essential and its date of replacement must be indicated.
- Any modification in the surrounding physical environment of the historic garden that will endanger the ecological balance must be forbidden and that includes all aspects of infrastructure facilities.
- The reconstruction works of the historical gardens must be occurred according to prior research to ensure that such work is scientifically executed. Before any particular work starts, the redevelopment project must be submitted to the experts for examination and approval.
- The historic garden is a peaceful place encouraging the human interactions, silence, and awareness of nature. The rules of using the historic garden in holding festivals must be clearly defined to let the festivals serve the enhancement of visual effect of the garden instead of damaging it.

7. THE DESCRIPTION OF ANTONIADIS GARDEN

7.1 Garden design analysis

- Location and history of Antoniadis Garden
Antoniadis Garden lies alongside the Mahmoudia Canal at the southern entrance of Alexandria in Smouha district. The garden has a strong historical identity. In 1860, Khedive Ismail asked Paul Richard to create the gardens following the French Garden’s principles (Alexandria-Governorate, 2018). The gardens also have several historical design styles, they are: French style, Italian style, Andalusian style, Natural style, sunken style, and Greek and Roman style.
- Circulation system
  - Entrances and Nozha complex main streets
The Antoniadis garden comprises 3 gates: the north entrance is the main one and it located on Albert Al-Awal Street. The second entrance is the South Gate which is a historical gate constructed by Mahmoud Mohamed Pasha in 1929. The third entrance is another North gate controlled by the Navy forces.
  - Circulation network inside Antoniadis garden
Antoniadis garden has a connected pedestrian network and the cars’ movement is restricted inside. The main problem in circulation is the absence of parking lots inside and outside the gardens.
- Spatial organization
Antoniadis constitutes as a part of the group of gardens that form the Nozha complex. The Nozha Park includes the Zoo garden, the Nozha garden, the children garden, and the Rose garden. Also according to the design styles of Antoniadis Garden, it is divided into 9 sections: Antoniadis Palace area, French garden, Italian garden, Royal Glasshouse garden, Pentagonal garden,
Elmashahyr garden, English garden, Andalusia garden, and Forest area (Araf, 2014).

- The historical components of the Gardens:
  - The Antoniadis Palace
  The palace is on the list of the heritage buildings with the number 1250 under class B in the city level according to the historic and touristic importance of the palace and the gardens (Awad, 2017). It consists of four levels, and the total area is 2,859 m2. It was revitalized by the Center for Alexandria and Mediterranean Studies and the development works were finished in 17 may 2017 (M. Awad, personal interview, November 23, 2017).
  - The Royal Glasshouse
  The Royal Glasshouse is located on the western side of Antoniadis garden. The iron structure is particularly remarkable with its large span and large areas of glass (N.Ismaiel, personal interview, November 3, 2017).
  - The Statues
  The garden contains 17 statues carved from pure alabaster and marble that represents gods of Antiquity and other renowned historical figures. (Goneima, Al-Sheikh, & Abo-Sheleeb, 2001).
  - The Antoniadis Stage
  The stage consists of stage’s theater and in a lower level there are the actors’ rooms. The background of the stage displays Roman columns inspired from the Baalbak temple. (Goneima, Al-Sheikh, & Abo-Sheleeb, 2001).
  - Al-Mashahyr Garden
  Al-Mashahyr garden includes seven valuable statues representing several international historical characters and they are placed in a circular arrangement and it is not accessible for the visitors. Besides, the garden contains a collection of rare plants (Goneima, Al-Sheikh, & Abo-Sheleeb, 2001).
  - Hard landscape
  Benches: There are two styles of benches in Antoniadis garden. One of them is made from alabaster and is a historical piece; the second style is made of wood and steel.
  Signage: The garden has only three signs.
  Lighting: In Antoniadis gardens there were several kinds of lighting fixtures. All of them are designed to suit the pedestrians scale.
  - Soft landscape
  Trees and shrubs: The Forest area is about 25,430 m2, the trees were planted to be future plant nursery. (Araf, 2014).
  Irrigation and infrastructure: The irrigation system in Antoniadis is from the underground water by hoses. (N.Ismaiel, personal interview, November 3, 2017).

7.2 Garden tourism analysis

- Management
  Actors of management
  Today, Antoniadis gardens are divided into two parts. The Antoniadis Palace and 8094 m2 of the adjoining gardens are managed by The Alexandria and Mediterranean Basin Studies Center affiliated with the Bibliotheca of Alexandria. Additionally, the garden and Antoniadis Palace are supervised by The Technical Committee for the Conservation of Heritage, affiliated with the Governorate of Alexandria, as the garden and its historical components are listed in the Heritage Catalogue of Alexandria. The Horticulture Research Institute affiliated with the Agricultural Ministry manages the rest of the garden. Hence, any development in the garden requires permission from these three administrations (N. Ismaiel, personal interview, November 3, 2017).
  - Visitor information
  A full study of the visitors’ information was undertaken in the present research to understand their needs, their motivations, and challenges, and the relation between the visitors and the garden. After analysis and recording visitor’s results, it was found that the number of visitors is very limited in comparison with the international botanical and historic gardens as the garden in the highest year of visit records 245,430 visitors; while international botanical gardens record more than 600,000 visitors.
  It is expected for Antoniadis garden to accommodate 1 million visitors per year, if the garden is maintained and renewed adequately with sufficient services (N. Ismaiel, personal interview, November 3, 2017).

Degree of satisfaction

Opening hours: Until 2017, the garden was open daily from 9 am to 5 pm, since the theft of a statue in Antoniadis garden, it closes at 2 pm and this considerably reduced the number of visitors (N. Ismaiel, personal interview, November 3, 2017). Most of people prefer to extend openings hours to 9 pm and even later especially during summers to enjoy open-air activities (concerts and events).

Climate: Respondents are very satisfied with weather conditions inside the garden. The only need was shelters and closed pergolas for rainy days.

Quality of the garden: Respondents rank the quality of the gardening according to the overall design, cleanliness level, if the garden is suitable for their activities, their satisfaction about services, and if it is suitable for all ages. They were also asked about the advantages and disadvantages. According to the questionnaire, it can be determined that the prevalent problems for the respondents are the following: uncleanliness level of the garden, lack of safety and security inside, and lack of services and maintenance. On the other hand, the greatest advantages of the garden are the variety of green spaces, and flowers, the large area of the garden, and the historical assets within the garden (Table 1).

According to the questionnaire, the reason of going to Antoniadis garden and the motivations of the respondents were as following: 30% of visitors go to the garden to enjoy green areas and relaxing, 16% of them prefer to bring their food to have lunch in green open space, 13% for walking, 12% go to play different games, and the other activities distributed in 16%. Regarding people’s opinion on the garden services, 94% answered that services are inadequate and 6% answer that services are more or less adequate and no one answer that they are adequate. (Fig1).

Table 1: the visitors answers about the advantages and disadvantages of Antoniadis garden, source: the researchers

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Fig. 1. shows the questionnaire answers about visitor activities and garden services, source: the researchers.

- Public facilities
There are several services common between the Nozha complex and Antoniadis gardens. For a total of 110 acres there are five restrooms two mosques in a good condition, only one storage building, three buildings supposed to be mini markets. There are two kiosks, one of which is used as a mini market and the other one is closed.

- Education facilities
Internationally the number of children and adults who are educated in the garden is a major issue for the garden to be classified as a botanical one. Antoniadis gardens include the Horticulture Research Institute which role is to preserve and enhance endangered plants. Unfortunately, it lacks the appropriate number of specialists and lacks funds. The last international educational expedition of Hanover University dates back to 2006.

- Events
Events and concerts inside the garden ended since 2008 when San Giovanni Hotel ended its contract of managing Antoniadis stage. After this date, there were some concerts but they were neither well organized nor managed.
• Safety and security
The Antoniadis garden is fenced from all sides, which gives more security and makes it more manageable. On the other hand, there are no cameras or security team, so at night the place is very unsafe.

• Human resources
A successful management system is urgently needed to eradicate potential corruption of some employees. Moreover, the garden has only eleven employees in the whole area, the garden’s administrators always ask for more human resources, but there is no response from local authorities.

- Marketing
• Marketing methods
Antoniadis garden lacks marketing plan and advertising. Current visitors know about the garden from their parents.

8. THE SWOT ANALYSIS
To propose an appropriate framework for the revitalization of historic gardens and understand the current situation of the Antoniadis garden, each component deducted from the above-mentioned guidelines was subject to a SWOT analysis. The analysis also included visitors’ questionnaire and interviews, (table 2).
### Table 2: SWOT analysis of the Antoniadis Garden components, source the researcher

<table>
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<tr>
<th>Component</th>
<th>Strength</th>
<th>Weakness</th>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Location</td>
<td>In the center of Alexandria. Near to Nozha airport. Easily accessible. Surrounded by main streets. Surrounded by several educational facilities.</td>
<td>Absence of night life and the place is unsecure at night. The surrounding streets are high ways and there is a lack of pedestrian footfall.</td>
<td>The current development project of Mahmoudia Axis provides new residential and commercial areas nearby the garden and makes the district more vital.</td>
<td>Attract antisocial activities at night. Exposed to unsuitable investments surrounding the location. Unreasonable potential development nearby Antoniadis.</td>
</tr>
<tr>
<td>Spatial organization</td>
<td>Historic value and mixed-style design garden. Variety in cultural elements. Vital visiting experience. Strong place identity.</td>
<td>Lack of connection between garden design styles. No visual connection between zones. Visitors' feeling of being lost. Forest area is not designed and is abandoned.</td>
<td>If the different historical garden designs are integrated the spatial organization will be enhanced. Redesign of the English garden and the forest area will enhance the overall design and provide more activities for users.</td>
<td>There are random antisocial activities in abandoned area. Changes in spatial organization can endanger the ecological balance of the garden.</td>
</tr>
<tr>
<td>Parliamentary Yard</td>
<td>Historic value and mixed-style design garden. Variety in cultural elements. Vital visiting experience. Strong place identity.</td>
<td>Lack of connection between garden design styles. No visual connection between zones. Visitors' feeling of being lost. Forest area is not designed and is abandoned.</td>
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<td>Alpine Garden</td>
<td>Historic value and mixed-style design garden. Variety in cultural elements. Vital visiting experience. Strong place identity.</td>
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<tr>
<td>Antoniadis palace</td>
<td>Historic value and mixed-style design garden. Variety in cultural elements. Vital visiting experience. Strong place identity.</td>
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</table>
### Royal glasshouse
- Place of historical value.
- Very good daylight inside the space.
- Unique design style.
- Large building in scale.
- Contains sculptured statues and fountains.
- Different floor patterns in the surrounded landscape.
- Visual contact with the rest of the garden.

### El Mashahyr Garden
- Fragile building material.
- Neglected fountain (with no water).
- Deteriorated floor patterns.
- Lack of surrounding services.
- Mismanaged. As it is a listed building, there are restrictions on its use and its renewal.
- Attractive place for investment. The place can be used as a photography hotspot.
- Can be used for different activities, as long the conservation of the building is guaranteed.
- Exposed to vandalism. Could be used for inappropriate activities. Neglected by managers.

### Statues
- Lack of maintenance. Lack of surveillance.
- Tourist destination. Destination for artists and students.
- Exposed to vandalism, theft and erosion factors. Need maintenance.

### Antoniadis stage
- Cultural and historic value. Need considerable budget for maintenance.
- Accommodates 5000 people. Open air stage.
- Surrounded by green areas. Beautiful historical stage background.
- Near to the north gate of Antoniadis.
- The stage can be used for concerts and events. Appropriate for wedding parties if access and service entrances are provided. Attractive for events investment as well as the conservation of green areas is guaranteed. Multi use space. Has the opportunity to be used during the whole day.

### Benches
- Most of garden sections have enough seats.
- Old benches are fixed to the ground.
- Bad condition of current benches. Lack of benches along the paths. In front of Mashahyr Garden, benches are distributed too close to each other. Lack of benches laid out for gathering. Some of the benches are made of nondurable material. Some sections like English and Italian gardens have no benches at all. Lack of shaded benches. Most of benches are not accessible for people that reduced mobility.

### Threats
- Exposed to vandalism.
- Weather changes. Material properties make benches sometimes too cold or too hot.
- Exposed to source of noise. Events and activities must take place without prejudice to the conservation of the gardens and landscapes.

### Opportunities
- Appropriate layout of well-designed benches encourage group gathering. Benches can be treated with anti-graffiti coatings. Trees provide shade that must be complemented by appropriate benches. Benches produced of concrete often have interesting forms and can be integrated in the garden with appropriate finishing and surface protection.

### El Mashahyr Garden
- Artistic pieces
- Historical educational value
- Durable material
- Collection of rare plants
- Lack of maintenance
- Destroyed fences in some parts
- Dormant grass
- Plants are injured
- Attractive touristic destination. If the garden introduced in an appropriate way to the visitors the educational value and public awareness will be increase
- Exposed to vandalism
- Exposed to thefts
- Exposed to erosion factors

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<tr>
<th>Component</th>
<th>Strength</th>
<th>Weakness</th>
<th>Opportunities</th>
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Insufficient signage. Lack of information signs about the historical values of the gardens and its buildings. Lack of signs and maps explaining the master plan. Inside the garden signs are placed too high up for visitors to notice. Signs’ size are not suitable. Lack of signs indicating plants’ names. Lack of signs for instructions and directions. Lack of warning signs for pedestrian and vehicle crossings. Lack of directional signs for restrooms and services. Information signs for historical components can improve awareness of their value. Appropriate signage of different sections can increase awareness of its value and increase visitors. Clear instructions signage about directions, emergency exits and services can encourage visitors to stay longer, enjoy more, and come more often. Signs for vehicles’ roads increase safety. Social media platforms can be used to promote the garden and give information about its value.

Exposed to vandalism. Need continuous maintenance and renewal. Weather changes have damaging impact on signs materials.

Important collection of rare plants and old trees and palms. Several types of flowers with different smells. Some trees have diseases and are not treated. Lots of rare plants types have disappeared. Lack of seasonally program for trees and palms pruning. Lack of technology for using seeds of rare plants and regenerate them.

During pruning operations, some unskilled workers cut trees s in inadequate way, which endanger the softscape. The garden elements must be preserved in accordance with the specific rules which can limit touristic activities.

Unique historical design of light posts. Most of light fixtures height fit users.

Lack of maintenance for existing light fixtures. Lack of adequate light fixtures for plants and trees. At night, the garden is completely dark as all of lights are switched off. Use of high energy consumption lamps. Insufficient lighting along pedestrian paths. The use of LED lighting for buildings (the Palace and the Royal Glasshouse) can significantly improve the visual interest and are energy-efficient light fixtures. The use of waterproof light fixtures can be useful for increasing visibility along paths. Light fixtures are exposed to vandalism. Insufficient infrastructure pipes. Insufficient drainage system to create more services. The drainage and irrigation system are unsustainable.

Irrigation system is used, the garden will be improved. Recycling systems to reuse grey water is an option that help in saving water. Drip irrigation reduces water consumption and runoff. Incentives for installation of rainwater harvesting devices can save great amount of water. Irrigation system that covers 100% of the landscape will improve the visual quality and guarantee the conservation of green areas. Irrigation system should include the complete twelve months.

The garden has underground archeological remains and this is a problem to create new infrastructure. Existing irrigation system is done by unskilled labor.

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<th>Opportunities</th>
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9. FINAL PRINCIPLES AND RECOMMENDATIONS

After the earlier analysis and results, it was concluded that a comprehensive approach must be adopted to achieve the conservation of the Antoniadis gardens as a historic living monument, which can be developed to a touristic destination. This approach can be implemented to develop and maintain historic gardens, in general, but with appropriate adaptation. The recommendations are developed according to the following principles:

1. Developing management models that suit the unique nature and context of each public garden is crucial to ensure sustainability over time. The management of gardens encompasses a broad range of issues. Management models should be focusing on achieving balance between diminishing funding, protecting biodiversity and fulfilling people needs.

2. The appealing image of public gardens, which is one of the main motivations that attracts people, highly depends on the level of cleanliness of the place. This require an effective and efficient waste collection system, and in the case of Antoniadis, not just the provision of the sufficient number of bins but new ways of law enforcement regarding offenders that drop litter or commit acts of vandalism.

3. The Historic areas of the public gardens are subjected to the rules of the Florence Charter in terms of conservation, maintenance, restoration, use, and development. Consequently, the administration of Antoniadis gardens should be managed by a special organization under the supervision of the Technical Committee for the Conservation of Heritage affiliated with the Governorate of Alexandria. This organization should have control over all aspects of the garden and its heritage buildings.

4. The Garden is public and is designed to provide a safe and user friendly environment. Even if Antoniadis garden has a great potential for development and touristic activities, it must remain affordable and accessible for all and some services can be fee-based but the access to open green areas should remain free of charge. The historical buildings’ adaptive reuse should not be harmful for their heritage value. The Palace of Antoniadis, for example, can be reused as a cultural center, with a library, or a research center. The Royal Glasshouse can include a flower shop, a place for cultural and musical concerts. These activities will provide night life in the garden. Additionally, safety cameras should be located in high profile sites and clear sight lines across passive and active use areas should be maintained.

5. The Garden must be relevant to community needs and expectations and must provide equitable access to all. Equitable access means that the garden environment is usable by all; including people with special needs, families with strollers and young children, the elderly and people with reduced mobility. Entrances must be enhanced and a reception plaza with a visitor center should be created. There should be a central core for the facilities. Besides, the visitor’s trip inside the garden should be legible and the design should avoid user conflicts. The starting point of the planning process for development should be the visitors’ needs and expectations and must not adversely impact the natural and heritage features of the garden. All stakeholders should cooperate; architects, botanists, agricultural engineers, economists, developers, and all the related fields with public participation of the community.

6. The Garden must be cost effective and adopt principles of sustainable landscapes. The revitalization of the Garden must include supporting living adaptable materials, respecting the natural water patterns, supporting wildlife, limiting the use of hardscape elements and considering local climate. For example, the lighting system should be energy saving, the paths may contain energy producers, the bins must be recyclable ones and restrooms should consider recycling grey water. Concerning irrigation, paths should consider harvesting rain water courses for reusing in irrigation, and drip irrigation should be installed in some areas to promote water conservation and reduce maintenance costs.

7. Raising public awareness of the value of the Historic Garden as a living monument. An Antoniadis garden is part of the broader concept of cultural heritage but this concept is unknown to the public. The environmental values of Antoniadis gardens, for example, can be used as an educational resource. Hence, it is crucial to take action in two directions; the first is raising public awareness of the issue. The second is aiming at taking advantage of existing legal documents and secure their implementation regarding protection, conservation, restoration, and management procedures.

8. The continuous maintenance of the vegetal constituents of the garden must be secured. The natural landscape including trees, bushes, plants, and flowers are renewable. Hence, any work of maintenance, conservation, restoration, and reconstruction must be dealt with simultaneously. In Antoniadis gardens, an extensive development program is necessary for pruning and replanting new types, and the repair of the irrigation system.

9. The educational facilities should be developed in the Garden. The Administration should provide botanists, workers, and facilities to enhance the seed bank of the Horticulture Research Institute of Antoniadis. Educational trip and programs...
should be set for all ages and make use of the ecological, historical, cultural and architectural values in the educational field.

10. A business plan is needed to guarantee the success of the revitalization and development plan of the Garden. The development plan must be consistent with the rules of the Florence Charter and the sustainable landscape principles. Attract successful developers and make the garden more vital and livable. For example; open cafes, restaurants, mini-shops and book shops can be developed in the Forest area of Antoniadis. Contracts should be clearly instructed with suitable benefits to the gardens and for a limited period to secure maintenance funds of the historical areas and preserve its value at the same time. The financial plan should be followed up periodically to develop immediate corrective actions in case of any problem. Finally, marketing is a main factor for a successful development plan; marketing should start simultaneously with the first step of development by advertising and encouraging volunteers.

REFERENCES

DESIGN OF LOW-POWER FULL SWING MIXED-LOGIC LINE DECODERS IN 32nm SCALING TECHNOLOGY

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Raghu Institute of Technology

Dr. P.S.R Chowdary²
Raghu Institute of Technology

ABSTRACT
The invention of integrated circuits has been a continuous demand for high performance, low power and low area or low cost diversified application from a variety of consumers. This demand has been pushing the fabrication process sub micron technologies such as 32, 22, 14nm and so on. The various technology aspects for low power applications are reviewed in detail, along with the evaluation of new technology, bearing in mind the power, performance and area. We are going to design 2–4 and 4–16 decoders with mixed logic design. Mixed logic is a gate-level design. It allows a digital logic circuit designer to separate the functional description of the circuit from its physical implementation. The use of mixed logic design provides logic expressions and logic diagrams that are analog of each other. In order to design these decoders there are two topologies are presented for the 2–4 decoder: a 14-transistor topology aiming on minimizing transistor count and power dissipation and 15-transistor topology aiming on high power-delay performance. Both normal and inverting decoders are implemented in each case, yielding a total of four new designs. Furthermore, four new 4–16 decoders will be designed by using mixed-logic 2–4 pre-decoders combined with standard CMOS post-decoder. All proposed decoders have full-swinging capability and reduced transistor count compared to their conventional CMOS counterparts. Finally, a variety of comparative Spice simulations at some area by using these comparative simulations we can show that the proposed circuits present a significant improvement in power and delay, outperforming CMOS in almost all cases.

INDEX TERMS—Line decoder, mixed-logic, power-delay optimization.

I. INTRODUCTION
Very large scale integration (VLSI) is the process of creating an integrated circuit (IC) by combining thousands of transistors into a single chip. Over the past decade, power consumption of VLSI chips has constantly been increasing. Moore’s Law drives VLSI technology to continuous increases in transistor densities and higher clock frequencies. The trends in VLSI technology scaling in the last few years show that the number of on-chip transistors increase about 40% every year. The operating frequency of VLSI systems increases about 30% every year. Although capacitances and supply voltages scale down meanwhile, power consumption of the VLSI chips is increasing continuously. On the other hand, cooling systems cannot improve as fast as the power consumption increases. Therefore in the very close future chips are expected to have limitations of cooling system and solving this problem will be expensive and inefficient. The main objective of Analysis of low power high performance 2-4 and 4-16 mixed line logic decoders is to reduce the power consumption. The power consumption can be reduced by minimizing the transistor count by using mixed logic design when compared to CMOS logic design. We design 2-4 and 4-16 decoders using mixed logic as well as CMOS logic and compare the results between them. In VLSI systems there is a trade-off between three parameters those are power, area and speed. To obtain better results in two parameters the third parameter should be negligible. Here we are designing low power and high performance decoders individually. So in order to design a low power and area efficient decoder speed has less preference. In order to design high performance and area efficient decoder power has less
Line decoders are fundamental circuits, widely used in the peripheral circuitry of memory arrays.

II. OVERVIEW OF LINE DECODER CIRCUITS

In digital systems, discrete quantities of information are represented by binary codes. An \( n \)-bit binary code can represent up to \( 2^n \) distinct elements of coded data. A decoder is a combinational circuit that converts binary information from \( n \) input lines to a maximum of \( 2^n \) unique output lines or fewer if the \( n \)-bit coded information has unused combinations. The circuits examined here are \( n \)-to-\( m \) line decoders, which generate the \( m = 2^n \) min terms of \( n \) input variables.

A. 2–4 Line Decoder

A 2–4 line decoder generates the 4 min terms \( D_0 \sim D_3 \) of 2 input variables \( A \) and \( B \). Its logic operation is summarized in Table I. Depending on the input combination; one of the 4 outputs is selected and set to 1, while the others are set to 0. An inverting 2–4 decoder generates the complementary min terms \( I_0 \sim I_3 \), thus the selected output is set to 0 and the rest are set to 1, as shown in Table II. In conventional CMOS design, NAND and NOR gates are preferred to AND and OR, since they can be implemented with 4 transistors, as opposed to 6, therefore implementing logic functions with higher efficiency. A 2–4 decoder can be implemented with 2 inverters and 4 NOR gates Fig. 1(a), whereas an inverting decoder requires 2 inverters and 4 NAND gates Fig. 1(b), both yielding 20 transistors.

![Figure 1: a) Non Inverting NOR based Decoder. b) Inverter NAND based decoder](image_url)

<table>
<thead>
<tr>
<th>Table 1: Truth Table of 2-4 decoder</th>
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<tr>
<td>0</td>
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<th>Table 2: Truth Table of Inverting 2-4 decoder</th>
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B. 4–16 Line Decoder With 2–4 Pre-decoders

A 4–16 line decoder generates the 16 min terms \( D_{0 \sim 15} \) of 4 input variables \( A, B, C, \) and \( D \), and an inverting 4–16 line decoder generates the complementary min terms \( I_{0 \sim 15} \). Such circuits can be implemented using a pre-decoding technique, according to which blocks of \( n \) address bits can be pre-decoded into \( 1 \)-of-\( 2^n \) pre-decoded lines that serve as inputs to the final stage decoder [1]. Therefore, a 4–16 decoder can be implemented with 2 2–4 inverting decoders and 16 2-input NOR gates [Fig. 2(a)], and an inverting one can be implemented with 2 2–4 decoders and 16 2-input NAND gates [Fig. 2(b)]. In CMOS logic, these designs require 8 inverters and 24 2-input gates, yielding a total of 104 transistors each.
III. NEW MIXED-LOGIC DESIGNS

Transmission gate logic (TGL) can efficiently implement AND/OR gates [5], thus it can be applied in line decoders. The 2-input TGL AND/OR gates are shown in Fig. 3(a) and (b), respectively. They are full-swinging, but not restoring for all input combinations. Regarding PTL, there are two main circuit styles: those that use nMOS-only pass transistor circuits, like CPL [3], and those that use both nMOS and pMOS pass transistors, like DPL [4] and DVL [6]. The style we consider in this work is DVL, which preserves the full swing operation of DPL with reduced transistor count [10]. The 2-input DVL AND/OR gates are shown in Fig. 3(c) and (d), respectively. They are full-swinging but non-restoring, as well. Assuming that complementary inputs are available, the TGL/DVL gates require only 3 transistors. Decoders are high fan-out circuits, where few inverters can be used by multiple gates, thus using TGL and DVL can result in reduced transistor count. An important common characteristic of these gates is their asymmetric nature, i.e. the fact that they do not have balanced input loads. As shown in Fig. 3, we labeled the 2 gate inputs $X$ and $Y$. In TGL gates, input $X$ controls the gate terminals of all 3 transistors, while input $Y$ propagates to the output node through the transmission gate. In DVL gates, input $X$ controls 2 transistor gate terminals, while input $Y$ controls 1 gate terminal and propagates through a pass transistor to the output. We will refer to $X$ and $Y$ as the control signal and propagate signal of the gate, respectively. Using a complementary input as the propagate signal is not a good practice, since the inverter added to the propagation path increases delay significantly. Therefore, when implementing the inhibition ($A\bar{B}$) or implication ($A + B$) function, it is more efficient to choose the inverted variable as control signal. When implementing the AND ($AB$) or OR ($A + B$) function, either choice is equally efficient. Finally, when implementing the NAND ($A + B$) or NOR ($A\bar{B}$) function, either choice results in a complementary propagate signal, perform.

A. 14-Transistor 2–4 Low-Power Topology

Designing a 2–4 line decoder with either TGL or DVL gates would require a total of 16 transistors (12 for AND/OR gates and 4 for inverters). However, by mixing both AND gate types into the same topology and using proper signal arrangement, it is possible to eliminate one of the two inverters, therefore reducing the total transistor count to 14.

Let us assume that, out of the two inputs, namely, $A$ and $B$, we aim to eliminate the $B$ inverter from the circuit. The $D_1$ minterm ($A\bar{B}$) is implemented with a DVL gate, where $A$ is used as the propagate signal. The $D_1$ minterm ($AB$) is implemented with a TGL gate, where $B$ is used as the propagate signal. The $D_2$ minterm ($A\bar{B}$) is implemented with a DVL gate, where $A$ is used as the propagate signal. Finally, The $D_1$ minterm ($AB$) is implemented with a TGL gate, where $B$ is used as the propagate signal. These particular choices completely avert the use of the complementary $B$ signal; therefore, the $B$ inverter can be eliminated from the circuit, resulting in a 14-transistor topology (9 nMOS and 5 pMOS). Following a similar procedure with OR gates, a 2–4 inverting line decoder can be implemented with 14 transistors (5 nMOS and 9 pMOS) as well: $I_0$ and $I_1$ are implemented with TGL (us- ing $B$ as the propagate signal), and $I_0$ and $I_1$ are implemented with DVL (using $A$ as the propagate signal). The $B$ inverter can once again be elided. Inverter elimination reduces the transistor count, logical effort and overall switching activity of the circuits, thereby reducing power dissipation. The two new topologies are named “2–4LP” and “2–4LPI,” where “LP” stands for “low power” and
“I” for “inverting.” Their schematics are shown in Fig. 4(a) and (b), respectively.

**Figure 3:** 2–4 decoder LP and LPI schematics

**B. 15-Transistor 2–4 High-Performance Topology**

The low-power topologies presented above have a drawback regarding worst case delay, which comes from the use of complementary A

as the propagate signal in the case of $D_0$ and $I$. However, $D_0$ and $I$ can be efficiently implemented using static CMOS gates, without using complementary signals. Specifically, $D_0$ can be implemented with a CMOS NOR gate and $I$ with a CMOS NAND gate, adding one transistor to each topology. The new 15T designs present a significant improvement in delay while only slightly increasing power dissipation. They are named “2–4HP” (9 nMOS, 6 pMOS) and “2–4HPI” (6 nMOS, 9 pMOS), where “HP” stands for “high performance” and “I” stands for “inverting.” The 2–4HP and 2–4HPI schematics are shown in Fig. 5(a) and (b), respectively.

**Figure 4:** 2–4 decoder High Performance Schematic and HPI schematic

**C. Integration in 4–16 Line Decoders**

PTL can realize logic functions with fewer transistors and smaller logical effort than CMOS. However, cascading PTL circuits may cause degradation in performance due to the lack of driving capability. Therefore, a mixed-topology approach, i.e., alternating PTL and CMOS logic, can potentially deliver optimum results.

**Figure 5:** 4–16 Decoder LP, LPI, HP and HPI Schematic

**IV. SIMULATION RESULTS**

All the implementations are done in Tanner EDA tools and for power calculation we used HSPICE monte Carlo simulation methodology.
Below Schematics are from Tanner EDA and waveforms are from HSPICE tool.

Figure 6: Schematic of CMOS 2-4 decoder

Figure 7: Waveform of CMOS 2-4 Decoder

Figure 8: Schematic of Low Power Inverter 2-4 Decoder

Figure 9: Waveform of Low Power Inverter 2-4 Decoder

Figure 10: Schematic of High Performance 2-4 Decoder

Figure 81: Waveform of High Performance 2-4 decoder
Table 3: Decoders at 2 GHz

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Figure 18: Schematic of LPI

Figure 19: Waveform of LPI

Figure 20: Schematic of HPI

Figure 21: Waveform of HPI
Table 4: Decoders at 1 GHz

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</tr>
<tr>
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<td></td>
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<tr>
<td>*10^-7</td>
<td>6.91</td>
<td>1.46</td>
<td>9.41</td>
<td>1.47</td>
<td>1.996</td>
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</tr>
<tr>
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<tr>
<td>*10^-9</td>
<td>-0.93</td>
<td>-1.97</td>
<td>0.22</td>
<td>-1.97</td>
<td>4.05</td>
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</tr>
<tr>
<td>1.2V</td>
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<td></td>
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<tr>
<td>Power</td>
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<td></td>
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<tr>
<td>*10^-7</td>
<td>8.36</td>
<td>2.15</td>
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</tr>
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<td>failed</td>
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Table 5: Decoders at 500 MHz

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<td>0.8V</td>
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<td></td>
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<td>Power</td>
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</tr>
<tr>
<td>*10^-7</td>
<td>3.73</td>
<td>1.26</td>
<td>2.91</td>
<td>1.27</td>
<td>1.5</td>
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<tr>
<td>Delay</td>
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</tr>
<tr>
<td>*10^-9</td>
<td>-1.89</td>
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<td>0.005</td>
<td>-1.97</td>
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</tr>
<tr>
<td>1V</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>*10^-7</td>
<td>5.58</td>
<td>1.46</td>
<td>9.41</td>
<td>1.47</td>
<td>1.9</td>
</tr>
<tr>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>*10^-9</td>
<td>-1.93</td>
<td>-1.97</td>
<td>22.46</td>
<td>-1.97</td>
<td>4.0</td>
</tr>
<tr>
<td>1.2V</td>
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<td></td>
</tr>
<tr>
<td>Power</td>
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<tr>
<td>*10^-7</td>
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<td>50.65</td>
<td>2.11</td>
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<tr>
<td>Delay</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>*10^-9</td>
<td>-1.94</td>
<td>-1.97</td>
<td>failed</td>
<td>-1.97</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Figure 102: Average Power of 2-4 Decoder in Micro Watts
This brief has introduced an efficient mixed-logic design for decoder circuits, combining TGL, DVL, and static CMOS. By using this methodology, we developed four new 2-4 line decoder topologies, namely 2-4LP, 2-4LPI, 2-4HP, and 2-4HP, which offer reduced transistor count and improved power delay performance in relation to conventional CMOS decoders. Furthermore, four new 4-16 line decoder topologies were presented, namely 4-16LP, 4-16LPI, 4-16HP, and 4-16HP, realized by using the mixed-logic 2-4 decoders as pre-decoding circuits, combined with post decoders implemented in static CMOS to provide driving capability. A variety of comparative spice simulations was performed at 32 nm, verifying, in most cases, a definite advantage in favor of the proposed designs.

A decoder consumes almost 30% of the total power in a memory circuit and hence it becomes mandatory to optimize a decoder circuit in the memory architecture. The main feature of the present work is to optimize the decoder designs in order to achieve better speed and power performance. This work can be extended by using various mixed design styles like DVL, gating technique etc. in this we can obtain better results than CMOS logic where the power consumption and transistor count can be reduced. By this way can obtain less power consumption and high performance operation when compared to CMOS logic design technique.

We can use these decoders in the applications where low power consumption and decoding is necessary such as data multiplexing, 7 segment display and memory address decoding.

REFERENCES

PREDICTING DIABETES MELITUS CASES AT A PRIVATE HOSPITAL IN ZIMBABWE USING THE BOX-JENKINS “CATCH ALL” MODEL

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Department of Economics, University of Zimbabwe, Harare, Zimbabwe

ABSTRACT
This paper employs monthly time series data on confirmed Diabetes Mellitus (DM) cases at South Medical Hospital (also known as Southmed or Citimed Hospital) from January 2012 to December 2018; to forecast DM cases over the period January 2019 to December 2020. Unit root tests have indicated that the DM series is basically I (1). The paper applied the SARIMA \((0,1,1)(01,1,1)_{12}\) model. The model has been found to be stable and adequate in forecasting DM cases at Citimed Hospital over the out-of-sample period. The results of the study basically show a seasonal pattern in the trends of predicted DM cases; characterized by repeats in June each year in the out-of-sample period. In order to improve service provision and resource allocation at Citimed Hospital, the study offers a 3-fold policy prescription.

1. INTRODUCTION
Diabetes mellitus (DM) is a serious life-long disease in which levels of glucose in the blood and urine become too high because the body’s ability to produce or respond to the hormone insulin released by the pancreas gets impaired and cannot move the glucose into the cells (Singye & Unhapipat, 2018). Diabetes disease is generally categorized into three categories, diabetes type I (insulin-dependent diabetes mellitus) and diabetes type II (non-insulin-dependent diabetes mellitus) as well as Gestational Diabetes Mellitus (GDM). These three different types of diabetes have different effects and can be caused by different factors. However, they all can cause serious health complications and it can increase the risk of blindness, blood pressure, heart disease, kidney disease and nerve damage (Temurtas et al. 2009) and need to be treated and managed properly (Singye & Unhapipat, 2018). Type I diabetes (TID) is the more severe variant of diabetes, where the pancreas has stopped producing insulin, a vital protein to regulate blood glucose levels. Hence, patients with TID have to normally inject insulin using either syringes or insulin pumps (Khashei et al. 2012). Type II diabetes is a condition when the body does not produce enough insulin or there is extremely less insulin to move the glucose to the cells; more over it is also a case when the insulin fails to work properly. Therefore, the sugar level in the blood is risen (Singye & Unhapipat, 2018). GDM is diabetes in pregnant women. The number of patients with diabetes has increased significantly during the last three decades (Meijner & Persson, 2017). In 1980, approximately 108 million adults in the world suffered from diabetes. Today that figure is estimated to be around 422 million (WHO, 2016). Hence, diabetes is now called the “silent killer” (Khashei et al. 2012). Diabetes type II is more common than diabetes type I (Khashei et al. 2012): in fact, of those with diagnosed diabetes, 90-95% have type 2 diabetes (Hjelm et al. 2003) and this is the case with Zimbabwe, where DM continues to pose a significant economic burden (Mutowo et al. 2016). This paper will focus on confirmed DM cases recorded at South Medical Hospital in Chitungwiza, Zimbabwe.
Objectives of the Study

1. To investigate the months during which newly diagnosed DM cases mostly occur at South Medical Hospital.
2. To forecast DM cases for the out-of sample period.
3. To examine the influence of past DM cases at South Medical Hospital to the present time.

Relevance of the Study

The prevalence of DM is increasing (Magliano et al. 2009) and is becoming one of the major health issues of both developed (Tabish, 2007) and the developing world (Meijner & Persson, 2017). In Zimbabwe, DM is now a serious public health problem (Ministry of Health and Child Welfare, 2009 & 2016; Hjelm & Mufunda, 2010; Mufunda et al. 2012; Mutowo et al. 2014; Mandewo et al. 2014; Mutowo et al. 2015; Mutowo et al. 2016; Mufunda et al. 2018; Nyoni et al. 2018; Chirombe et al. 2018; Mukona et al. 2019; Nkomani et al. 2019); especially given the fact that there are also high numbers of cases of diabetes which remain undiagnosed (International Diabetes Federation, 2014). Actually, DM is the 5th among the ten most common diseases in Zimbabwe (Mudiayi et al. 1997). This could be attributed to urbanization and industrialization, leading to changes in life style from “traditional” and active life to a “modern” sedentary life with unhealthy dietary habits and obesity in combination with increased longevity (Hjelm et al. 2003). Hence, DM in Zimbabwe can be thought of as a collision between the modern life style and our ancient genes built for a life as a hunter-gatherer (Zimmet, 2000). In developing countries such as Zimbabwe, diabetes is predicted to overtake other communicable diseases as the major cause of death by 2020 (Murray & Lopez, 1997).

The prevalence of DM in Zimbabwe is approximately 9.7% and the country is ranked 4th amongst African countries with highest prevalence of diabetes (Mukona et al. 2016). This is too high a prevalence and warrants the need for modeling and forecasting DM cases for policy formulation. In fact, DM has become a chronic disease that affects between 2% and 4% of the global population and its avoidance and effective treatment are undoubtedly crucial public health and health economics issues in the 21st century (Khashei et al. 2012). Hence, the prediction of DM cases is increasingly recognized as a valuable tool to facilitate service provision and resource allocation (Soyiri & Reidpath, 2013). In order to improve service provision and resource allocation at Citimed Hospital, this study examines the trends of DM cases using the Box-Jenkins “catch-all” model. The paper will go a long way in enhancing the management of DM at South Medical Hospital as well as in other similar health facilities dotted around the country.

2. LITERATURE REVIEW

In Iran, Khashei et al. (2012) analyzed diabetes type II using a soft intelligent binary classification model and basically found out that the hybrid model is generally better than linear or nonlinear, soft or hard and classic or intelligent classification models presented for diabetes classification. Villani et al. (2017) forecasted Prehospital Emergency Medical Services (EMS) demand for diabetic emergencies using SARIMA models with a data set covering the period 2009 to 2015. Their results indicate that the SARIMA (0,1,0)(0,1,2)12 model provided the best fit, with a MAPE of 4.2% and predicted a monthly caseload of approximately 740 by the end of 2017. Singye & Unhapipat (2018), in Thailand, studied diabetes patients using time series analysis, with a data set covering the period January 2006 to December 2016. Their results showed that the ARIMA (0,1,1) model is the best model to describe and predict future trends of diabetes incidences.

In a Spanish study, Rodriguez-Rodriguez et al. (2019) examined the use of big data in predicting short-term blood glucose levels in type 1 diabetes mellitus through machine learning techniques and found out that very accurate short-term prediction can be achieved by only monitoring interstitial glucose data over a very short time period and using a low sampling frequency. In another Spanish study, Rodriguez-Rodriguez et al. (2019) investigated the possibility of predicting Glycaemia with constrained IoT devices in type 1 diabetes mellitus patients. Their results basically indicate it is possible to forecast, in a smartphone, a 15min horizon with RMSE of 11.65 mg/dL in just 16.5s, employing 10min sampling of the past 6 h of data and the RF algorithm. This study follows the intuition of Singye & Unhapipat (2018). However, we use the seasonal ARIMA instead of the generalized ARIMA model used by Singye & Unhapipat (2018); on the basis that the former performs better than the latter.

3. METHODOLOGY

Box – Jenkins ARIMA modeling has demonstrated successful prediction of a range of specific health disease events (Medina et al. 2007; Wah et al. 2014) and has been recognized for its simplicity and easy of administration (Earnest et al. 2012). The Box – Jenkins
type models belong to Box & Jenkins (1970) and in this study; it will be adopted for analyzing newly diagnosed monthly DM cases at South Medical Hospital. A generalized Box-Jenkins SARIMA model is as specified in equation [1] below:
\[
\phi_p(B) \Phi_P(B^d) \theta_q(B) \Theta_Q(B^s) \epsilon_t = \theta_p(B) \Theta_P(B^d) \phi_q(B) \Phi_Q(B^s) \epsilon_t 
\]
Where B is the backshift operator, \( \phi_p, \phi_P, \theta_q \) and \( \theta_Q \) are polynomials of order p, P, q and Q respectively. \( \epsilon_t \) is a white noise process and \( X_t = \nabla_d \Delta_s Y_t \) is the differenced X series.

**Data Issues**

This study is based on newly diagnosed monthly DM cases [X] (all age groups) at South Medical Hospital, from January 2012 to December 2018. The out-of-sample forecast covers the period January 2019 to December 2020. All the data employed in this paper was gathered from the DHIS2 system for Chitungwiza urban city.

**Diagnostic Tests and Model Evaluation**

**Stationarity Tests: Graphical Analysis**

Figure 1: Graphical Analysis

Figure 1 above shows that the plotted series does not follow any explicit or particular trend and therefore, it is reasonable to suspect non-stationarity. The striking feature of figure 1 is the possible existence of seasonality after every 12 months as suggested by the highest number of DM cases that tend to be experienced in June of almost every year under study. For the 7 years studied, June 2014, June 2016, 2017 and 2018 have the highest number of DM cases, that is; 22, 30, 17 and 17, respectively. This gives us a clue to the possible need for seasonal differencing, hence the suitability of the Box-Jenkins “catch all” model.
Unit Root Tests

<table>
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<tr>
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<th>Constant + Trend</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_t$</td>
<td>-10.06067***</td>
<td>-11.32536***</td>
<td>-1.35661</td>
</tr>
<tr>
<td>$D(X_t)$</td>
<td>-7.260087***</td>
<td>-7.203000***</td>
<td>-7.285994***</td>
</tr>
</tbody>
</table>

NB: ***, ** and * imply rejection of null hypothesis at 1%, 5% and 10% levels of significance, respectively.

The null hypothesis of non-stationarity is rejected under all the three circumstances and we conclude that $X$ is essentially an I (1) variable. This implies that we can proceed to estimate the Box-Jenkins “catch all” model.

Analysis of the Residuals of the SARIMA $(0, 1, 1)(0, 1, 1)_12$ Model

Residual Correlogram of the SARIMA $(0, 1, 1)(0, 1, 1)_12$ Model

Figure 2: Residual Correlogram

Figure 2 shows that the Box-Jenkins “catch all” model applied in this study is adequate.
4. FINDINGS OF THE STUDY

Descriptive Statistics

Figure 3: Descriptive statistics

Figure 3 above shows that the maximum number of newly diagnosed DM cases at South Medical Hospital, over the study period, is 49 and this was realized in August 2012. The minimum is zero and this has been experienced in quite a number of months, that is January, April, September, October and December 2012; February, March, May, July, August and November 2014; February and October 2015; January, March, April, September and November 2016; April, July, August and September 2017 as well as February, March, April and December 2018. The average number of DM cases over the period under study is approximately 6 cases per month. Worthy to note as well is that the series is not normally distributed but rather positively skewed with a skewness statistic of approximately 2.5.

Results Presentation

Table 2: Main Results of the SARIMA (0, 1, 1)(0, 1, 1)_{12} Model

The SARIMA (0, 1, 1)(0, 1, 1)_{12} model may be presented as follows:

\[(1 - B)(1 - B^{12})X_t = (1 - 0.961883B)(1 - 0.672588B^{12})\varepsilon_t \]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>z</th>
<th>p-value</th>
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<td>(\theta_1)</td>
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<td>0.163843</td>
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<td>0.000404***</td>
</tr>
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</table>

NB: ***, ** and * means significant at 1%, 5% and 10% level of significance, respectively.
Out of Sample Forecasts

Table 3: Out-of-sample forecasts (January 2019 – December 2020)

<table>
<thead>
<tr>
<th>Year: Month</th>
<th>Prediction</th>
<th>Standard Error</th>
<th>95% Confidence Interval</th>
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<td>0.908762</td>
<td>9.47673</td>
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<td>2019:02</td>
<td>-0.106975</td>
<td>9.48361</td>
<td>(-18.6945, 18.4806)</td>
</tr>
<tr>
<td>2019:03</td>
<td>3.29998</td>
<td>9.49049</td>
<td>(-15.3010, 21.9010)</td>
</tr>
<tr>
<td>2019:04</td>
<td>-1.65079</td>
<td>9.49736</td>
<td>(-20.2653, 16.9637)</td>
</tr>
<tr>
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<td>9.50423</td>
<td>(-19.5070, 17.7489)</td>
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<td>(-5.03453, 32.2483)</td>
</tr>
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<td>2019:09</td>
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<td>(-20.2326, 17.1308)</td>
</tr>
<tr>
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<td>(-15.3672, 22.0230)</td>
</tr>
<tr>
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<td>-0.201819</td>
<td>10.1609</td>
<td>(-20.1167, 19.7131)</td>
</tr>
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<tr>
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<td>-1.98962</td>
<td>10.2060</td>
<td>(-21.9931, 18.0138)</td>
</tr>
</tbody>
</table>
Graphical Presentat
Figure 5: Graphical presentation of out-of-sample forecasts

Table 2 shows the main results of the Box-Jenkins “catch-all” model. In that table, equation [2] is the mathematical expression of the model. All parameters of the model are statistically significant at 1% level of significance. The model predicts that most DM cases at South Medical Hospital will be received during the month of June, that is; June 2019 and June 2020. Hence, the seasonal pattern of DM cases at Citimed Hospital repeats in the month of June every year. Figure 4, table 3 and figure 5 display out-of-sample forecasts of the Box-Jenkins “catch-all” model. Generally, the forecasts show that DM cases at South Medical Hospital are anticipated to be less than 4 cases per month, with exception of the month of June, which is projected to be characterized by a higher number of DM cases of approximately 12 cases. South Medical Hospital usually carries out Health Expos in the months of April, May and June each year leading to relatively higher numbers of new DM cases around this period.

5. CONCLUSION & RECOMMENDATIONS

Private health institutions such as South Medical Hospital have a role to play in the prevention and management of DM in Zimbabwe. Hence, studies like these should be used for policy formulation and should steer a scholarly debate in the private health sector. This study was hinged on the Box-Jenkins modelling approach, particulary the SARIMA \((0,1,1)(01,1,1)_{12}\) model, which is also called the Box-Jenkins “catch-all” model; probably due to its wide applicability in empirical works. The results of this study are specifically meant for Citimed Hospital but may be generalized to other similar health institutions. Further research should look into constructing separate Box-Jenkins models for type 1, type 2 and gestational DM. Separate models for each type of DM could uncover new insights into the management of each specific type of DM. The paper recommends the following:
There is need for the South Medical Hospital to organize adequate finance for the acquisition of the much needed pharmacotherapies for the management of DM.

Health workers at South Medical Hospital, just like in any other health institution in the country, ought to be properly trained in the detection and treatment of DM. This will help in reducing the number of undiagnosed DM cases.

There is need to, at least, briefly educate patients on DM to not only improve patients’ self-care but also promote good care-seeking behaviour. In this regard, patients should be encouraged to stick to health life styles and diets.

REFERENCES


Using Artificial Neural Networks for Predicting New Dysentery Cases in Children Under 5 Years of Age in Chitungwiza Urban District, Zimbabwe

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ABSTRACT

In this research article, the Artificial Neural Network (ANN) model has been successfully used to model new dysentery cases in children under 5 years of age in Chitungwiza urban district in Zimbabwe. The study covers the period January 2012 to December 2018. The out of sample forecasts range over the period January 2019 to December 2020. The applied neural networks have been evaluated using the Error, Mean Square Error (MSE) and Mean Absolute Error (MAE). These model evaluation criteria show that the applied ANN model is adequate. The residual analysis of the model also further indicates that the ANN model applied in this paper is stable and suitable for forecasting new dysentery cases in children under 5 years of age in Chitungwiza urban district. The forecasts show a generally downwards trajectory of new dysentery cases in children under 5 years of age in Chitungwiza urban district. This is commendable for the relevant authorities in Chitungwiza for being able to keep the disease under reasonable control. However, there is need to improve the standards if a dysentery-free Chitungwiza is to be materialized any time soon.

1.0 INTRODUCTION

Zimbabwe continues to battle water-borne diseases such as bacillary dysentery, which have been mainly attributed to erratic water supplies, poor hygiene practices and inadequate sanitation (UN-OCHA, 2012). Bacillary dysentery, caused by different species of the Shigella bacteria, is the most regular acute intestinal infectious disease, and symptoms include fever, abdominal pain, and uncontrolled loose or watery stools containing visible red blood (Sampson & Leslie, 1979). Excessive dehydration due to dysentery can be fatal in some severe cases and is responsible for 120 million cases of severe dysentery, the majority of which occur in developing countries, especially among children (Kotloff et al. 1999; Von Seidlein et al. 2006; WHO, 2009). Bacillary dysentery is generally transmitted through faecal-oral route via contaminated food and water, and occurs more frequently in developing countries with poor sanitation and unsafe water supply (Yan et al. 2017). Shigella infections are a leading cause of diarrhoeal death among children in developing countries (Tickell et al. 2017) such as Zimbabwe, where an outbreak of dysentery is usually characterized by high mortality, especially in children since they tend to develop hemolytic uremic syndrome (HUS) (Oneko et al. 2001). This warrants the need for effective dysentery forecasting models in order to improve health policy formulation.

Zimbabwe’s urban areas are choking under the weight of over-crowdedness amidst dilapidated infrastructure that is characterized by constant failure. The water and sewer systems of the country’s major urban centres are on the verge of collapse, thus putting millions of people in danger of consuming
contaminated water, including that from underground sources. This situation has resulted in the transmission of such communicable diseases as dysentery amongst others (Makwara & Tavuyanago, 2012). In fact, all of Zimbabwe’s major urban centres, especially Chitungwiza, are haunted by an inadequate water supply. The already bad situation is compounded by poor sanitation and hygiene that has characterized literally the whole country. Due to fast growing urbanization, this phenomenon has become “express” in Chitungwiza urban district. It thus becomes instructive to reflect on dysentery patterns that have been recorded in Chitungwiza urban district, especially for children under 5 years of age because they are the most vulnerable group.

1.1 OBJECTIVES
i. To assess new dysentery cases in children under 5 years of age in Chitungwiza urban district over the period January 2012 to December 2018.
ii. To predict dysentery cases for Chitungwiza urban district over the period January 2019 to December 2020.
iii. To determine whether dysentery cases are increasing or decreasing for Chitungwiza urban district over the out of sample period.

1.2 RELEVANCE OF THE STUDY
Dysentery, as a major global health problem (Tang et al. 2014), poses serious threats to developing countries (Kotloff et al. 1999), with no exception for Zimbabwe and yet effective models for forecasting dysentery cases or incidences are lacking (Yan et al. 2017). In Zimbabwe, no study has been done in this regard and yet the burden of dysentery is on the rise. This study will be the first of its kind in Zimbabwe and will focus on Chitungwiza urban district which is one of the most overcrowded urban areas in Zimbabwe and is always characterized by perennial water shortages and poor sewage systems. From a public health perspective, Chitungwiza is at risk of dysentery outbreaks and thus is imperative to analyze the past trends of dysentery cases in order to consolidate health policy with regards to dysentery prevention and control.

2.0 RELATED STUDIES
Yan et al. (2010) employed hybrid models for dysentery forecasting in Yichang city in China and basically found out that the SARIMA-GRNN model outperforms the SARIMA model. Tang et al. (2014) analyzed Shigella trends and risk factors in Jiangsu province in China using GIS tools and ARIMA models and found out that the ARIMA (1, 12, 0) predicted well for cases from August to December 2011. In another Jiangsu study, Wang et al. (2016) predicted the incidence of dysentery in China, using SARIMA models and found out that the best fit model was the SARIMA (1,1,1)(1,1,2)12 model. Yan et al. (2017) examined the impact of meteorological factors on the incidence of bacillary dysentery in Beijing, China using the ARIMAX model and found out that temperature with 2-month and 7-month lags and rainfall with 12-month lag were positively correlated with the number of bacillary dysentery cases in Beijing. Comprehensive studies on modeling and forecasting dysentery cases are generally scanty in literature. Reviewed studies in the current study have been done in China, probably due to the high correlation between dysentery incidence and meteorological factors in China. No similar study has been in Zimbabwe. This paper will be the first of its kind and will go a long way in aiding the prevention and control of dysentery in Chitungwiza urban district.

3.0 METHODOLOGY
Researchers have recently analyzed how well the neural network model performs compared with the linear model using data from industry, finance, medical research and others (Guang et al. 2004; Wu et al. 2006; Hamdy et al. 2007) and have basically found out that the Artificial Neural Networks (ANNs) have the advantage of approximating nonlinear functions (Yan et al. 2010), especially those series for which the mathematical knowledge of the stochastic process behind the series is either unknown or difficult to rationalize (Castiglione, 2001). In the current study, our data exhibits nonlinear patterns (Guan et al. 2008), hence the need to use ANNs for forecasting. This study will not be the first one to use ANN in forecasting dysentery cases; we follow Yan et al. (2010) who used the hybrid models whose structure was combined with neural networks. However, we differentiate our approach from Yan et al (2010) by just using an ordinary feed-forward ANN approach based on the Multi Layer Perceptron Neural Network (MLPNN) without combining it with any other method.

3.1 Data Issues
This study is based on newly diagnosed monthly dysentery (DS) cases in children under 5 years of age in Chitungwiza urban district. The data cover the period January 2012 to December 2018 while the out-of-sample forecast covers the period January 2019 to December 2020. All the data employed in this paper
was gathered from Chitungwiza City Health Information Department.

### 4.0 FINDINGS OF THE STUDY

#### 4.1 DESCRIPTIVE STATISTICS

![Figure 1: Descriptive statistics](image)

From figure 1 above, the average number of dysentery cases in children under 5 years of age over the period under study is approximately 1 child per month. The maximum is 7 while the minimum is 0. The series under consideration is not normally distributed as shown by the Jarque-Bera statistic but rather it is positively skewed as indicated by the skewness statistic.

#### 4.2 ANN MODEL SUMMARY FOR DYSENTRY CASES IN CHITUNGWIZA URBAN DISTRICT

<table>
<thead>
<tr>
<th>Table 1: ANN model summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>Observations</td>
</tr>
<tr>
<td>Neural Network Architecture:</td>
</tr>
<tr>
<td>Input Layer Neurons</td>
</tr>
<tr>
<td>Hidden Layer Neurons</td>
</tr>
<tr>
<td>Output Layer Neurons</td>
</tr>
<tr>
<td>Activation Function</td>
</tr>
<tr>
<td>Back Propagation Learning:</td>
</tr>
<tr>
<td>Learning Rate</td>
</tr>
<tr>
<td>Momentum</td>
</tr>
<tr>
<td>Criteria:</td>
</tr>
<tr>
<td>Error</td>
</tr>
<tr>
<td>MSE</td>
</tr>
<tr>
<td>MAE</td>
</tr>
</tbody>
</table>

_Residual Analysis for Chitungwiza Urban District (under 5) Dysentery cases_
Figure 2: Residual analysis for Chitungwiza urban district under 5 dysentery cases

In-sample Forecast for DS (dysentery)

Figure 3: In-sample forecast for DS series

Out-of-Sample Forecast for DS: Actual and Forecasted Graph
Figure 4: Out-of-sample forecast for DS: actual and forecasted graph

Out-of-Sample Forecast for DS: Forecasts only

<table>
<thead>
<tr>
<th>Table 2: Tabulated out-of-sample forecasts</th>
</tr>
</thead>
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<tr>
<td>January 2019</td>
</tr>
<tr>
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<td>October 2020</td>
</tr>
<tr>
<td>November 2020</td>
</tr>
<tr>
<td>December 2020</td>
</tr>
</tbody>
</table>
4.3 DISCUSSION OF THE RESULTS

Table 1 is the ANN model summary and basically shows the ANN (12, 12, 1) neural network model, which has been based on the hyperbolic tangent function as its activation function. The “criteria” are the evaluation statistics and they all indicate the model is adequate. Figure 2 shows the residuals of the model and since the residuals are as close to zero as possible, the model is stable and acceptable for generating forecasts for Chitungwiza urban district. Figure 3 shows the in-sample forecast of the model and it can be inferred that the model fits well with data. Figure 4, table 2 and figure 5 are out of sample forecasts. A striking feature of our forecast is that the dysentery cases will be highest in the month of August each year in the out of sample; for example, for August 2019, nearly 3 cases were predicted and for August 2020, approximately 2 cases have been predicted to occur at Chitungwiza urban district. Mostly importantly, the predicted DS cases are shown to be going downwards and this is clear indication that the war against dysentery in children under 5 years of age is being gradually won in Chitungwiza urban district. In order to maintain this, a 3-fold policy recommendation has been put forward as shown below in section 4.4 of the study.

4.4 RECOMMENDATIONS

i. Improvement of sanitation and hygiene should be strengthened not only in Chitungwiza urban district but also in all other parts of Zimbabwe.

ii. The government of Zimbabwe should improve access to safe water in Chitungwiza, for example, through drilling additional boreholes and repairing & maintaining existing ones; in order to cope with increasing demand for water.

iii. The government of Zimbabwe and its relevant partners and donors should continue to provide medical supplies for the treatment of dysentery in Chitungwiza urban district, just like in other parts of the country.

5.0 CONCLUSION

Children under 5 years of age are the most vulnerable group of patients when it comes to dysentery outbreaks, hence the need for this paper. The paper employed the ANN approach in order to analyze the trends of dysentery cases in Chitungwiza urban district over the period under study. Results are encouraging as they indicate victory against the disease but still there is need for continuous fight against dysentery in order to materialize a dysentery-free country. The study is the first of its kind in Zimbabwe and is expected to steer-up a scholarly debate especially with regards to modeling and forecasting dysentery cases.
REFERENCES


GENITAL ULCER DISEASE IN CHITUNGWIZA URBAN DISTRICT IN ZIMBABWE: LATEST INSIGHTS FROM ARTIFICIAL NEURAL NETWORKS

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ZICHIRe Project, University of Zimbabwe, Harare, Zimbabwe

Mr. Thabani NYONI
Department of Economics, University of Zimbabwe, Harare, Zimbabwe

ABSTRACT

In this paper, ANN models were applied in forecasting GUD cases in people living in Chitungwiza urban district. The employed data covers the period January 2012 to December 2018 and the out-of-sample period ranges over the period January 2019 to December 2020. The residuals and forecast evaluation criteria of the applied models indicate that the models are adequate in predicting GUD cases in Chitungwiza urban district over the out-of-sample period. The results of the study basically indicate that more GUD cases are being confirmed in male than female patients and this trend has been forecasted to persist into the out-of-sample period. However, GUD cases for both males and females have been shown to be decrease in Chitungwiza urban district and this basically indicates that the war against GUD in Chitungwiza urban district is being won, although slowly. Therefore, there is need to implement the suggested 3-fold policy recommendations.

1.0 INTRODUCTION

Genital Ulcer Disease (GUD) is an important health problem in many developing countries (Wasserheit, 1991) and Zimbabwe is not an exception. GUD is caused by either infectious (genital herpes simplex virus, syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale [donovanosis], fungal infections such as candida, and secondary bacterial infection) or noninfectious (behcet syndrome, fixed drug eruption, psoriasis, sexual trauma, and Wegener granulomatosis) etiologies (Augenbraun, 2009; Louden & Jorizzo, 2009; Workowski & Berman, 2011). In Zimbabwe, herpes simplex virus is the most common cause of GUD (Mungati et al. 2018) and a major risk factor in the acquisition and transmission of Human Immunodeficiency Virus (HIV) (Kilmart et al. 2018). The global incidence of GUD is more than 20 million cases annually (Low et al. 2006). In Africa, GUD is a significant risk factor in the acquisition and transmission of HIV (Wawer et al. 2005; Paz Bailey et al. 2010a & b; Phiri et al. 2013). The diagnosis of GUD is based on the presence of one or more mucocutaneous ulcers involving the genitalia, perineum or anus (Cohen & Mayer, 2007). Appropriate management of GUD is a public health priority (Kilaratne et al. 2018). Against this precise background, there is need for modeling and forecasting GUD cases in Zimbabwe in order to inform policy makers. This study will focus on Chitungwiza urban district. The figure below shows the trends in GUD cases in Chitungwiza urban district:
Figure 1: GUD cases in Chitungwiza urban district

Figure 1 above basically shows that in Chitungwiza urban district, most GUD cases have been recorded for males than females over the study period. Hence, in Chitungwiza urban district, more male than female patients suffer from GUD. This could imply that there is need for sexual behaviour change programmes in Chitungwiza urban district, especially for men.

1.1 OBJECTIVES
i. To analyze GUD cases in Chitungwiza urban district over the period January 2012 to December 2018.
ii. To forecast GUD cases in Chitungwiza urban district over the period January 2019 to December 2020.
iii. To determine whether GUD cases in Chitungwiza urban district are increasing or decreasing over the out of sample period.

2.0 RELATED STUDIES
Makasa (2012) examined the epidemiological context of sexually transmitted infections in Zambia using data from various surveys and laboratory tests and basically concluded that there an overall significant decline in syphilis trends between 1994 and 2008 among urban and rural women in Zambia. Phiri et al. (2013) assessed the etiology of GUD and its association with HIV infection in Malawi using cross-sectional analysis and finally concluded that herpes simplex virus type 2 ulcers were highly prevalent and strongly associated with HIV. In India, Muralidhar et al. (2013) investigated GUD prevalence using specimens from 90 patients as well as blood samples. Their results indicate that the prevalence of GUD was 7.45 with mean age at initial sexual experience as 19.2 years. Kularatne et al. (2018) analyzed trend in the prevalence of GUD in South Africa using surveys and generally concluded that HSV remains the leading adding of pathogen-detectable GUD in South Africa. In Zimbabwe, Mungati et al. (2018) carried out an etiology of GUD using data from six geographically diverse clinics in Zimbabwe. Their results basically indicate that herpes simplex virus was the leading cause of GUD in their survey. No study has been done to forecast GUD cases in Zimbabwe or elsewhere, to the best of our knowledge. This paper will be the first of its kind, not only in Zimbabwe but also within the research community.

3. METHODOLOGY
There are a plethora of methods for the development and implementation of neural network model of forecasting (Ali et al. 2017). However, there
are many problems faced in trying to find the appropriate network size for predicting real-world time series (Zhang et al. 1998), no wonder why in many empirical works, feedforward neural network topology with back propagation learning algorithm is used, mostly in form of the Multilayer Perceptron Neural Network (MLPNN) type of the Artificial Neural Network (ANN) approach (Wang et al. 2006). MLP model belongs to a general class structure of ANN called feedforward neural network, which is a basic type of neural network that is capable of approximating both continuous and integrable functions (Ali et al. 2017). This study employs the MLPNN type of the ANN approach. Since there are no hard and fast rules that are used to determine the correct structure of a neural network (Fischer & Gopal, 1994), this study will be guided by Babic et al. (2011) who employed the ANN (12,12,1) model based on the sigmoid activation function. However, in this paper, we seldom use the sigmoid activation but rather we adopt the more efficient hyperbolic tangent activation function.

3.1 Data Issues

The GUDM (for male patients) and GUDW (for female patients) series used in this covers the period January 2012 to December 2018 and was recorded for people living in Chitungwiza urban district, aged between 10 and over 50 years. All the data was gathered from the DHIS2 system for Chitungwiza urban district.

4. FINDINGS OF THE STUDY

4.1 DESCRIPTIVE STATISTICS

Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUDM</td>
<td>11.869</td>
<td>10.500</td>
<td>0.0000</td>
<td>33.000</td>
</tr>
<tr>
<td>GUDW</td>
<td>10.452</td>
<td>8.5000</td>
<td>1.0000</td>
<td>27.000</td>
</tr>
<tr>
<td>Variable</td>
<td>Std. Dev.</td>
<td>C.V.</td>
<td>Skewness</td>
<td>Ex. kurtosis</td>
</tr>
<tr>
<td>GUDM</td>
<td>7.1453</td>
<td>0.60201</td>
<td>0.91096</td>
<td>0.34593</td>
</tr>
<tr>
<td>GUDW</td>
<td>6.4123</td>
<td>0.61348</td>
<td>0.76901</td>
<td>-0.40016</td>
</tr>
<tr>
<td>Variable</td>
<td>5% Perc.</td>
<td>95% Perc.</td>
<td>IQ range</td>
<td>Missing obs.</td>
</tr>
<tr>
<td>GUDM</td>
<td>2.2500</td>
<td>27.750</td>
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<td>0</td>
</tr>
<tr>
<td>GUDW</td>
<td>3.0000</td>
<td>23.000</td>
<td>9.7500</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1 shows the descriptive statistics on GUD cases in Chitungwiza urban district. The average number of GUD cases for men, over the period of study; is approximately 12 cases per month while that of women is approximately 10 per month. The maximum number of GUD cases in men is 33 while that of women is 27. These statistics indicate that basically men are leading in GUD cases in Chitungwiza urban district. All the series are not normally distributed as shown by the skewness statistics which indicate that the series under consideration are positively skewed.
4.2 ANN MODEL SUMMARY-GUD IN MEN

Table 2: ANN model summary – GUD in men

<table>
<thead>
<tr>
<th>Variable</th>
<th>GUDM</th>
</tr>
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<tbody>
<tr>
<td>Observations</td>
<td>72 (After Adjusting Endpoints)</td>
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<tr>
<td>Neural Network Architecture:</td>
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<tr>
<td>Input Layer Neurons</td>
<td>12</td>
</tr>
<tr>
<td>Hidden Layer Neurons</td>
<td>12</td>
</tr>
<tr>
<td>Output Layer Neurons</td>
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</tr>
<tr>
<td>Activation Function</td>
<td>Hyperbolic Tangent Function</td>
</tr>
<tr>
<td>Back Propagation Learning:</td>
<td></td>
</tr>
<tr>
<td>Learning Rate</td>
<td>0.005</td>
</tr>
<tr>
<td>Momentum</td>
<td>0.05</td>
</tr>
<tr>
<td>Criteria:</td>
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<tr>
<td>Error</td>
<td>0.074109</td>
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<tr>
<td>MSE</td>
<td>1.845970</td>
</tr>
<tr>
<td>MAE</td>
<td>0.996610</td>
</tr>
</tbody>
</table>

**In-sample Forecast – GUD in Men**

**Figure 2: In-sample forecast – GUD in men**

**Out-of-Sample Forecast – GUD in Men: Actual and Forecasted Graph**
Figure 3: Out-of-sample forecast – GUD in men: actual and forecasted graph

Out-of-Sample Forecast – GUD in Men: Forecasts only

Table 3: Out-of-sample forecast – GUD in men: forecasts only

<table>
<thead>
<tr>
<th>Month – Year</th>
<th>Predicted New Cases of GUDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2019</td>
<td>8.6878</td>
</tr>
<tr>
<td>February 2019</td>
<td>7.1246</td>
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<td>March 2019</td>
<td>6.4367</td>
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<td>April 2019</td>
<td>8.0795</td>
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<td>May 2019</td>
<td>10.4584</td>
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<td>June 2019</td>
<td>9.4318</td>
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<td>July 2019</td>
<td>8.0454</td>
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<td>August 2019</td>
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<td>September 2019</td>
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<td>October 2019</td>
<td>9.8158</td>
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<td>November 2019</td>
<td>7.2219</td>
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<td>December 2019</td>
<td>6.9724</td>
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<td>January 2020</td>
<td>7.8815</td>
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<td>February 2020</td>
<td>8.5752</td>
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<td>August 2020</td>
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<td>November 2020</td>
<td>6.9496</td>
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<td>December 2020</td>
<td>6.9562</td>
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</table>
Figure 4: Graphical presentation – GUDM: out-of-sample forecasts only

![Graphical presentation of GUDM forecasts]

Table 4: ANN model summary – GUD in women

<table>
<thead>
<tr>
<th>Variable</th>
<th>GUDW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations</td>
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<td>Neural Network Architecture:</td>
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</tr>
<tr>
<td>Input Layer Neurons</td>
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<td>Hidden Layer Neurons</td>
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<td>Output Layer Neurons</td>
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<tr>
<td>Activation Function</td>
<td>Hyperbolic Tangent Function</td>
</tr>
<tr>
<td>Back Propagation Learning:</td>
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</tr>
<tr>
<td>Learning Rate</td>
<td>0.005</td>
</tr>
<tr>
<td>Momentum</td>
<td>0.05</td>
</tr>
<tr>
<td>Criteria:</td>
<td></td>
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<tr>
<td>Error</td>
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<tr>
<td>MSE</td>
<td>0.609277</td>
</tr>
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<td>MAE</td>
<td>0.617563</td>
</tr>
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</table>

In-sample Forecast – GUD in Women
Figure 5: In-sample forecast – GUD in women

Out-of-Sample Forecast – GUD in Women: Actual and Forecasted Graph

Figure 6: Out-of-sample forecast – GUD in women: actual and forecasted graph

Out-of-Sample Forecast – GUD in Women: Forecasts only
### Table 5: Out-of-sample forecast – GUD in women: forecasts only

<table>
<thead>
<tr>
<th>Month – Year</th>
<th>Predicted New Cases of GUDW</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2019</td>
<td>8.6875</td>
</tr>
<tr>
<td>February 2019</td>
<td>6.8213</td>
</tr>
<tr>
<td>March 2019</td>
<td>8.7443</td>
</tr>
<tr>
<td>April 2019</td>
<td>10.4042</td>
</tr>
<tr>
<td>May 2019</td>
<td>3.1633</td>
</tr>
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<td>June 2019</td>
<td>6.4078</td>
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<td>July 2019</td>
<td>9.7564</td>
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<td>August 2019</td>
<td>7.7418</td>
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<td>September 2019</td>
<td>3.4679</td>
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<td>October 2019</td>
<td>7.3101</td>
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<td>November 2019</td>
<td>8.8831</td>
</tr>
<tr>
<td>December 2019</td>
<td>5.0245</td>
</tr>
<tr>
<td>January 2020</td>
<td>5.4489</td>
</tr>
<tr>
<td>February 2020</td>
<td>6.7742</td>
</tr>
<tr>
<td>March 2020</td>
<td>2.9064</td>
</tr>
<tr>
<td>April 2020</td>
<td>5.6053</td>
</tr>
<tr>
<td>May 2020</td>
<td>8.5699</td>
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<td>June 2020</td>
<td>6.8696</td>
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<tr>
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</tr>
<tr>
<td>August 2020</td>
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<tr>
<td>September 2020</td>
<td>10.3341</td>
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<td>October 2020</td>
<td>7.2746</td>
</tr>
<tr>
<td>November 2020</td>
<td>5.3940</td>
</tr>
<tr>
<td>December 2020</td>
<td>9.0481</td>
</tr>
</tbody>
</table>

#### Figure 7: Graphical presentation – GUDW: out-of-sample forecasts only

Predicted GUDW and GUDM on a Single Graph
Table 2 and 4 show the summaries of the ANN models for GUDM and GUDW. Both models use the hyperbolic tangent function as the activation function. Figure 2 and 5 are in-sample forecasts for both models. Table 3 and figure 3 & 4 are out-of-sample forecasts for GUDM while table 5 and figure 6 & 7 show out-of-sample forecasts for GUDW. The most striking feature is that figures 4 and 7 show downwards trends in both GUDM and GUDW. However, the trend line in figure 4 is generally steeper than the one in figure 7 indicating that GUDM cases are decreasing at a faster rate as compared to GUDW cases. The reasons for the observed decline in GUD cases in Chitungwiza are:

i. Behavior change programmes which are carried out in the district.

ii. Clinic staff who are well trained in the management of Sexually Transmitted Infections (STIs) and integration of STI management and OI/ART program.

iii. Scaling up of Voluntary Medical Male Circumcision (VMMC) program.

The most striking feature is that figures 4 and 7 show downwards trends in both GUDM and GUDW. However, the trend line in figure 4 is generally steeper than the one in figure 7 indicating that GUDM cases are decreasing at a faster rate as compared to GUDW cases. The reasons for the observed decline in GUD cases in Chitungwiza are:

i. Behavior change programmes which are carried out in the district.

ii. Clinic staff who are well trained in the management of Sexually Transmitted Infections (STIs) and integration of STI management and OI/ART program.

iii. Scaling up of Voluntary Medical Male Circumcision (VMMC) program.

Figure 8: Predicted GUDM and GUDW on a single graph

Figure shows the predictions of GUDM and GUDW cases plotted on the same graph. Ideally, both cases should be declining rapidly if sexual health programmes are achieving the desired health outcomes in Chitungwiza urban district. However, figure 8 indicates that GUDM is largely above GUDW in most instances and confirms the previous trends shown in figure 1, where more males than females have been shown to be suffering from GUD.

Residual Analysis and Forecast Evaluation for the ANNs

Residual Analysis for GUDM

Residual Analysis for GUDW
Figure 10: Residual analysis for GUDW

Forecast Evaluation Statistics for Both GUDM and GUDW ANNs

<table>
<thead>
<tr>
<th>Evaluation Statistic</th>
<th>GUDM ANN</th>
<th>GUDW ANN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>0.074109</td>
<td>0.054039</td>
</tr>
<tr>
<td>MSE</td>
<td>1.845970</td>
<td>0.609277</td>
</tr>
<tr>
<td>MAE</td>
<td>0.996610</td>
<td>0.617563</td>
</tr>
</tbody>
</table>

Figure 9 and 10 show the residual of the models applied in this paper. In both instances, the residuals are reasonably close to zero as possible; hence the models are quite acceptable for predicting GUD cases in Chitungwiza urban district. Table 6 shows the model criteria. These statistics should ideally be as minimum as possible. As shown in table 6, the evaluation statistics are quite very low and hence the models are relatively more accurate.

4.3 DISCUSSION OF THE FINDINGS

GUD is a fundamental risk factor in the transmission and acquisition of HIV. For Chitungwiza urban district, given that more male than female patients suffer from GUDs and our forecasts indicate that the trend is likely to continue; it leaves a lot to be desired in terms of the prevalence of HIV, especially in men as compared to women in Chitungwiza urban district. It is common knowledge that men have a poor healthcare seeking behaviour as compared to women and this is the case for Chitungwiza. Furthermore, a lot of young men in Chitungwiza abuse alcohol and other drugs and end up not using condoms consistently during their sexual encounters. The results of this study are not surprising given the fact most people in developing countries such as Zimbabwe lack adequate knowledge on sexual health. However, the decreasing trends shown in figure 4 and 7, generally indicate that relevant authorities in Chitungwiza urban district are doing their best to reduce the incidence of GUDs in Chitungwiza. This study will go a long way consolidating existing policy frameworks in Chitungwiza urban district.

4.4 RECOMMENDATIONS

i. Intensification of behaviour change and sexual & reproductive health programs which involve dissemination of information on correct and consistent use of condoms during sexual encounters, as well as putting emphasis on STI prevention, early detection and treatment.

ii. Scaling up of VMMC programmes.

iii. More programmes in general sexual health education, especially at community level.

5. CONCLUSION

It is almost unnecessary to reiterate the fact that GUD in Zimbabwe is of concern to public health policy makers. Patients diagnosed as having GUD in Zimbabwe receive a combination of antimicrobials to
treat syphilis, chancreoid, lymphogranuloma venereum and genital herpes. Along with etiological studies of GUD in Zimbabwe such as Mungati et al. (2018), this paper further consolidates the current health policy framework not only for Chitungwiza urban district but also for the whole country at large. This paper analyzed GUD cases in Chitungwiza urban district for a monthly data set ranging over the period January 2012 – December 2018 using ANN models. Further studies can look into constructing various models for each variant of GUD and for each age group, that is: 10-24; 25-49 & 50 and above; this could potentially uncover further empirical evidence on the incidence of each variant of GUD such as syphilis, chancreoid and so on with regards to specific age groups. A similar study can also be done for the whole country in order to get a full picture of GUD dynamics in Zimbabwe. Even though the results of this paper could be generalized for other similar urban districts in Zimbabwe, it is imprudent to undermine the fact that they are specifically applicable to Chitungwiza urban district.

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ETHNIC PROCESSES IN THE NORTHEAST OF CENTRAL ASIA IN THE VII-X CENTURIES

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ABSTRACT
This article analyzes the stages of formation of tribes and their states, tribal ethnic groups living in the northeast of Central Asia in the 7th-9th centuries. Ethnic processes have also been described in terms of the ethno-cultural community of the people of Central Asia.

KEYWORDS: Ethnic Formation, Tribes, Turkic Tribes, Uighurs, Turgeshs, Kimaks, Karlaks, Kyrgyz, Kipchaks, Pechengs, Khazars, Oghuzs.

INTRODUCTION
The Central Asian region is the only place where different nations and people have been living together for many centuries. The issue of ethnic history and ethnogenesis of the people of Central Asia has attracted the attention of many scholars. Scientific works on ethnic issues have been explored by V.V. Bartold, A.A. Semyonov, N.A. Aristov, A.Yu. Yakubovsky, S.G. Agadjanyan, K.Shaniyazov, M.I. Artamanov, L.N. Gumilev, L.V. Oshanin, B.A. Akhmedov, A. Asqarov, R.A. Ageev and their works showed the importance of ethnic history and ethnogenesis [10,11,20,5,6,24,3,21,14,17,9,8,2].

Studies show that various historical political processes, military conflicts, and sometimes natural conditions have led to changes in the changes of living places. This affected the interference of tribes and nations, economic and ethno-cultural convergence, and migration of economic activities.

Nations were formed at a specific historical period. During this time, the nations living in the same area were always in close economic and cultural proximity to each other. Other ethnic groups or ethnic people, who have lived in the area since ancient times and emigrated from other regions and countries, may also be actively involved in the ethnic process [21, P.74-78]

A particular ethnic group or component plays a leading role in the interethic convergence. Other ethnic groups are linguistically and culturally affiliated with this leading group. Throughout the ethnic process, ethnicities in a given region undergo certain developmental stages and have a common language, common sense system, and ethnic identity. Now let's look at the ethnic processes of the population living in Central Asia in the VII-X centuries. In the VII-IX centuries the majority of the population in Central Asia was Turkish. Some of them were settled, and the rest were nomadic.

THE MAIN RESULTS AND FINDINGS
VII-XIII centuries Electronic Texts of Mazar, Alpakh, Turkestan (beginning of 8th century), Altai to Manjur and Uighur state in East Tianshan (mid-8th to mid-IX century), Karluk State in Zhetysu (VIII-IX centuries), Samanid state in Movarounnahr (IX-XIX centuries) (Ninth century), Karakhanid state in Eastern Turkestan and Movarounnahr (beginning of X-XIII centuries), IX-XII century in Afghanistan and Khorasan, Ghazni state, then Seljuk state were in power.

The population of Ferghana, Ustrushana, Shash, Sogd, Kesh, Nasaf, Takharistan, Khorezm regions of Central Asia has always been stable, engaged in farming, handicraft and trade. The people, who lived in the middle and lower reaches of East Turkestan, Zhetsu, Syrdarya and adjoining steppes, were mainly Turkic-speaking peoples withnomadic livelihood.

Residents of Movarounnahr have direct ethnic, economic and cultural ties with Afghanistan, India, Tibet and East Turkestan, and Zhetsu in the south. The territory of northern Takharistan in the IX-X centuries was Choghanyan, Khuttalon, Akharun,
Kobadian, Badakhshan, Wakhan, Shikinan, and Keren. In southern Takharistan, medieval Turkic ethnoss lived in the north-eastern provinces of Afghanistan and in northern India, and they were ethnically and culturally connected with the inhabitants of Movarounnahr, East Turkestan and Zhetsyu.

During the Turkic Khaganate, several Turkic tribes living on the Eurasian continent merged into large tribal alliances. Some ethnic groups formed during the Khaganate (Oghuz, Uigur, Kipchak, Kirghiz, etc.) were the basis for the formation of several ethnic groups that emerged during the Middle Ages.

As a result of the disintegration of the Turkic Khaganate, the Turkic tribes united around large tribes and formed strong tribal alliances, one of which was the Turkesh tribal union. Most of the Turkesh lands were settled in the second half of the 7th century in the Ili River valley, on the northern slopes of Tianshan, and were part of the Dulu tribal alliance. Turkishes were divided into black and yellow groups of Turkishes. According to L.N. Gumilyov, the “yellow” Turkesh consist of ancient tribes living in Tarbaghatai and the Ili Valley, and “black” Turkesh - the Abar ethnos who settled here [13, pp.382-386, 14, pp.427-443]

In the beginning of the eighth century, Nushibi tribal alliances and Dulu tribes belonged to the newly formed Turkesh tribal alliance. The groups, which did not want to be subject to the Turkesh state, settled in the middle and lower deserts of the Syrdarya and in the Movarounnahr area. Some tribes in Dulu partly resided in Turkesh state, while some groups migrated westward and settled down on the Volga, and later joined Bulgarians.

At that time Karlusks started getting the power in Central Asia. With the formation of the Turkic kaganate (552 CE), Karlusks living in the western regions of Altai move from there to the Irtysh River coast, from the slopes of the Mongolian Altai to the northern Ila River. Most of them occupied some areas of Eastern Turkestan, Ferghana and Takharistan in the VI-VII centuries. Some groups of Karlusks people had settled in Kashmir. The remaining part of karlukks to the north of the Ili River, in the middle of the 7th century, became an alliance that united the three tribes (meulo), chigil or sebek (chjisi or pofu), and other tribes. This association was preserved in ancient Turkic scripts and Chinese sources under the name of “Karluk budun” (“karluk of people”) or “three karluk". These tribes established their own Karluk Empire (756-940), which ranges from the Dzhungar Altai to the middle stream of the Syrdarya, the Ili, Chu, Talas valleys, the Tianshan slope between Balkhash and Issikkul, and Isfijab to Uttar. They encamped Siyab in the Chu River oasis. In addition to karluk people, there were several Turkic tribes and ethnic groups, such as orghu, tukhisi, turkesh, az, uz, yoghma and others [21, P. 87]

According to the ethnographer K. Shoniyozov, as a result of the struggle with the Western and Eastern Kaganate, the union of the karlukks was divided and several ethno-territorial associations were formed. These include: karlukks dwelling in the lower reaches of the Irtysk River, in the southern Altai; karlukks dwelling on the slopes of Khangay, Tannu, Aloda; karluk people living in Turfan Basin, Kashghar, Yorkent; karlukks living in Takharistan; karlukks living in northwestern India and Kashmir.

In 740, the Uighur khan Moyunchur (Peylo in Chinese sources) united the tribes and Bashmils, having successfully fought against the Eastern Turkic Khaganate and founded the Uighur Kaganate (VIII-IX centuries) [13,P.398-413;14,C.519-604] Its eastern border reached Manchuria and its western border reached Jungoria. Various information about the Uighur formation process is available in the sources. For example, the Uighur historian, Turghun Almas, states: “The Uighurs have been living since ancient times in the Tarim Valley, bordering the Karakorum and Tangirtog ranges, in the Jungaria, on the Irtysk River, and on the Ili River in the Altai; They lived in the valleys of Selenga, Orkhon, Tola, and Kerulen rivers” [19,p.6]. Ibn Hordodbox calls the Uighurs the Nine-Oguz [11, pp.19-194,50-51,568-569], and gives the following information about the areas in which they lived: “Their region is the largest of the Turkic countries, they border on China, Tibet and Karlucks” [15, C.139].

The Uighur tribes united nine tribes during the Pelo Khanate (742-756). The names of these tribes were given by N.J. Bichurin and L.M. Pozdnenev in their works: iologue, khuduge, kyuilou, mokosige, achjay, gesa, xuvynsy, ivouge, xasivu [12, p. 368].

J. Hamilton mentions these nine tribes names in the form of yagla, urukar, turlamvyr, bokasikir, avuchag, korsar, xogorsu, ayagyvyrak, xieymvyr.

In 840, the Uighur kingdom was defeated by the Kirghizs of Enisey. Then the Uighurs retreated to East Turkestan. Some of them founded Ganjau State in 847 in Gansu province. The rest of the population of the Uighur empire (847-850) came to the Turfan oasis and established the Turfan State. Some Uighur groups resided in Dunhuang, Guajou, Sichuan, Karashar, Beshbalik, Kucha and Eastern Turkestan.

Thus, the Uighur kaganate collapsed in the middle of the ninth century, and the territory where their descendants lived was now dominated by the Kyrgyz. The northeastern provinces of East Turkestan were under Uighur rule since 840. Turkic-speaking Kimak and Kipchak tribes lived on the banks of the
Altai and the Irtysh River, north-west of the Tarbagatay Ranges.

Kimakas were located in the western part of Altai in the middle of the 8th century, in the middle Irtysh. In the second half of the 8th century at the beginning of the 9th century some of the kimakas were located in the north-west, in the Ural Mountains, and the other half in the south-west and north-west of Zhetyus. Most of the Kimaks lived in the middle streams of the Irtysh River. After the collapse of the Uighur empire in 840, some of its tribes (Eymur, Bayandur, Totor) joined Kimak. This is how the Kimak tribal alliance was formed. In the second half of the IX century Kimak Khaganate was formed.

At the end of the VII - the beginning of the 8th century, there was a strengthening of the Kyrgyz position in the political arena. Turks, who were enemies of the 8th century Kyrgyz, refer to the name of the Kyrgyz khan Barsbek in the Turkic inscriptions. Barsbek was the ruler of the Kyrgyz state in Enisey [16, pp.114-133] The years of his reign were marked by a dramatic change in the situation in Central Asia. At that time, it supported the Orhan Turks (Mongolia) against the Tan Empire and was able to break the resistance of the Chinese and their allies.

By the beginning of the ninth century, when the Uighur khaganate began to lose its power, the Kyrgyz used the weakening of the Uighur people. With the help of karluks, the Kyrgyz proclaim themselves as independent of the Uighur khaganate.

The Kyrgyz kaganate, which strengthened its political position, continued its aggression and expanded its territory. The boundaries of the Kyrgyz state extended to Lake Baikal, to the south to Tibet, and to the south-west to Zhetyus, and to the north, to the present Tomsk and Krasnoyarsk.

Another Turkic tribe was the Kipchaks [21, B.360-364; 11, pp. 550-551; 1]. They belonged to Kimak in the 8th and 9th centuries. The Kipchaks who migrated west to the end of the sixth and 7th centuries shared with Kimaks on the left bank of the Irtysh River and occupied the Ishim and Tobel River valleys. Since that time, the Kipchak tribal alliances intensified, allied with the Khazars and invading the Caucasus. In 722-728 they reached Arran (Azerbaijan) and Armenia, and in 765 - the territories of Georgia. In the ninth century, the Kipchaks moved westward, occupying the upper reaches of the Ural River and the deserts near the river Or and Ilek (left river). In the IX-X centuries they conquered the Emba and Volga region and were adjacent to the Pechenegs, Kanghli, Yuzs and other Turkic-speaking tribes. These tribes later became addicted to the Kipchaks. In the middle of the 10th century, the Kipchaks became independent and intensified at the end of the 10th and early 11th centuries and subordinated Kimakas to them.

The formation of kipchaks was influenced by many kaghils, Turkic-speaking tribes - uran (originating from Eastern Turkestan in the 10th century), bayat, azkishi and turkeshs, karluks and chigihils. As the political power of the Kipchaks grew, different tribes and ethnic groups united around the Kipchaks and adopted the Kipchak ethnonym. But the formation of Kipchaks as a people was interrupted by the Mongol invasion [4, P.51-53]

In the 8th-9th centuries, large Turkic-speaking tribes lived in the Pechenegs, Kanghli, and their own ethnic groups, from the northwestern Aral Sea to the Volga River.

The Pecheneg occupied the VIII-IX centuries on the territory between the Ural River and the Volga River. Some of them reached the Ural River to the east of the Uille River and to the north of the Ural Mountains.

Uzs lived east of the pechenegs [21, P.365-370]. Most of them were located in the middle and lower reaches of the Emba, Uille and Ural rivers. In the VI-VIII centuries the Uzs were part of the Western Turkic empire, and in the first half of the 8th century they were part of Turkeshes. After the conquest of Ettlev, a group of them settled in the northwestern Aral Sea region. The other part of them remained in the middle stream of the Syrdarya and became part of the Oguz. In the late 9th century, they allied themselves with the Khazars, attacking the Pechenegs and expelling them. The Pechenegs had to migrate from the Volga to the southern Russian deserts.

The grazing areas of the Pechenegs were gained by Uzs did not stay there long. The Kipchaks, northeast of Uzs, attacked and expelled them in the middle of the tenth century. Like the Pechenegs, Uzs also left their land and crossed into the South Russian steppes and settled on the left bank of the Don River.

One of the larger associations was Oghuzs. The earliest information on them was mentioned in Arabic-Persian sources of the IX-X centuries. At that time, the Oghuz lived in the lower and middle reaches of the Syrdarya, in the deserts close to the Aral Sea, in the western regions of present-day Turkmenistan. According to Istahri, during his time (X century), the Oghuzs lived in the deserts of the northeast of the Caspian Sea [21, P.370-372]

Some groups of Oghuz people lived in the Shash oasis (Keles steppe, Ugam and Chatkal mountain slopes) with karluks. The Oguz, who converted to the Muslim religion, settled in towns and villages in the oasis.

During VIII-IX centuries tribes living in Dzungaria, East Turkestan and Zhetyus (kay, sariq, bayat, murk, etc.) moved to Syrdarya coast and
joined the Oghuzs. Thus, in the VIII-IX centuries the Oghuzs formed a large tribal alliance in the territories near Syrdarya and the Aral Sea. At the end of the ninth century the Oghuz state was formed on the basis of this tribal alliance.

**CONCLUSION**

Consequently, as we have seen, in the 7th-9th centuries, many tribes with nomadic lifestyles lived in northeastern Central Asia, the strongest and largest of which established other states around their tribes and established their own states. These tribal alliances greatly influenced the ethno-political and ethno-cultural processes in the Central Asian region.

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INNOVATIVE POLICY IN SINGAPORE

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ABSTRACT

Based on the work, the article explores Singapore’s innovation policy, in particular its history and current state. The author focuses on such concepts as innovation in education, innovation in the economy and others. In conclusion, fundamental conclusions were made.

KEYWORDS: Innovative, possibilities, Singapore, government, reforms

INTRODUCTION

The process of becoming Singapore, as a new, independent state, takes place in the most difficult socio-economic conditions. The government understands that in order to overcome difficulties it is necessary to use scientific and technical potential.

In this regard, back in 1965, the country’s first prime minister, Lee Kuan, discovered that: "Our people are the only people that we need to be leaders in the field of scientific and technological progress [1]."

Based on his words, we can assume that in the development of the state the main stake was made, first of all, on the human factor.

It must be emphasized that after independence, the main barriers to the development of the country were:

1. limited territory and small population;
2. Lack of natural resources;
3. Basing the main part of the economy on trade, as well as financial and business services;
4. A small agricultural sector and a low share of industry;
5. Statement in 1967 on the upcoming withdrawal of the British armed forces, which in turn was marked in 1970 by the loss of 20% of jobs and a decrease in GDP by 18% [2].
6. Subsequent rapid population growth amid increasing unemployment [3];
7. Widespread lack of skilled labor, engineers and technical personnel;
8. Lack of own R&D and finished technologies;
9. Poorly developed education system: the presence of only 100 primary, 11 secondary and 1 polytechnic school;
10. Internal opposition to state power, represented by an elite trained in the UK, as well as the national Chinese business community and, as a result, the state’s reluctance to support local business, represented by the political opposition;
11. A small domestic market, as well as a loss of access to the markets of Malaysia and Indonesia, resulting from the deterioration of relations with the above countries.

METHODOLOGY AND RESEARCH

In these extremely unfavorable conditions for the country, the main goal of Singapore’s economic development was the creation of an “efficient business city”, and to achieve this goal, the Singapore government set itself the difficult goals of industrializing the economy, improving the quality of education, and in reducing unemployment.

It should be noted that the main objectives of the innovation policy of the Singapore government were:

- Development of the national educational sphere, including higher education, vocational training, as well as training in the process of production activity;
- Attracting foreign direct investment;
- Borrowing and accelerated adaptation of foreign technologies;
- The formation of conditions and the development of its research infrastructure [4].

An objective analysis of the works [5] available on this issue allows us to argue that the Singapore
government in achieving its goals took into account the existing advantages of its state, such as:

1. The strategic and geographical location in the center of the Malaysian archipelago and the historically entrenched position of the international logistics and trade center;
2. The availability of English equipment and certain industrial infrastructure left over from colonial times;
3. The presence of transnational corporations since colonial times;
4. The availability of cheap labor.

It is important to note that for the Singapore government, the above benefits played an important role. On this basis, education has become a priority for the development of domestic policy for the country's leadership. In particular, the elite of Singapore had chosen the path of intellectual modernization associated with the creation of a market for highly qualified personnel to attract foreign investment [6].

To solve the problem associated with the education system, the Singapore government has taken a number of measures to reform the system of higher and secondary education, adapting them to the new economic policy.

To solve the problem associated with the education system, the Singapore government has taken a number of measures to reform the system of higher and secondary education, adapting them to the new economic policy.

In particular, during the period of reforming the education system, the main emphasis was placed on training the workforce with basic mathematical knowledge and practical technical knowledge. In addition, English was introduced in schools and universities as the main language of instruction.

As a result of large-scale reforms in the education system, 12 vocational schools and 7 secondary technical schools were opened, and admission to polytechnic institutes was significantly expanded. Engineering institutes were opened in universities, focused on the training of technical specialists. As a result of the reforms in the field of the education system in the country, the level of education among young citizens has increased and it should be noted that the country's leadership in every way stimulated talented people.

In particular, in 1970 the Skills Development [7] Fund was established, the main purpose of which was to finance up to 70% of the costs of retraining, re-profiling employees in priority areas.

The creation of the Assistance Fund led to the creation of the Council for Vocational Education to coordinate, consolidate and expand training and education, and in 1981, at the merger of the University of Singapore and Nanyang University was created the National University of Singapore [8].

So, according to published works, as a result of the reforms, the costs of developing the education system in the period from 1978 to 1983 increased from 21 million to 245 million US dollars, which in our opinion is one of the best indicators in the countries of Southeast Asia.

Thus, we can state that already in the late 70's XX century, the leadership of Singapore realized that for the country's sustainable economic growth, it is necessary to invest financial resources in the country's education system.

During its development, the Singapore government took all necessary measures to attract specialists from other countries, which was facilitated by the fact that for their opening representative offices and headquarters Transnational corporations sent high-ranking business and technical managers to Singapore.

However, as a result of rising unemployment in the country, the government restricted the entry of foreign lower-level specialists and workers into the country through a strict migration policy. As a result, in a short period of time, the country managed to create a significant base of human resources for working at foreign enterprises and to reach the solution of the problem “training in the process of production activity [10]".

During the period under review, the Singapore government began to actively pursue a policy of attracting foreign investment to the country. In particular, a strategy for attracting foreign direct investment was developed and implemented, which involved the solution of the following measures:

- Representative offices of the Economic Development Board of Singapore were opened in cities such as Hong Kong, New York, San Francisco, London and others;
- Representatives of foreign transnational corporations were included in the International Advisory Council (International Advisory Council) in order to obtain timely information directly from transnational corporations about their preferences, difficulties, wishes, etc.
- Various tax incentives were widely introduced, grants were provided, including across the state line, in the absence of restrictions on the creation of a company with 100% foreign capital, hiring personnel, selecting suppliers, etc.
- Measures were taken to artificially restrain workers' wages and a substantial increase in the salaries of skilled engineers with the consent of the Singapore National Wage Council.

As a result of the implementation of this strategy, in the period from 1965-1973 Singapore alone received investments worth more than 1.6
billion US dollars [11], which had a significant impact on the further development of the country's economy.

In addition, already during this period, through the efforts of highly qualified representatives of the Government of Singapore Investment Corporation [12], the organization of business was clearly established both in the country itself and later beyond. As a result of this, in a short period of its independent development in the country, it was possible to create a sufficient number of jobs.

It should be noted that in order to turn Singapore into one of the industrial countries of Southeast Asia, the Singapore government has taken a number of measures.

In particular, the country's leadership managed to attract many and stimulate the further development of operations of those transnational corporations that had already functioned in the country.

It should be emphasized that electronics and industry during this period were identified as one of the key sectors of the economy due to the presence in the country, of several leading global multinational corporations, which in turn had constantly expanding external demand for contract manufacturing in developing countries from foreign companies.

As a result of the involvement of multinational corporations in Singapore, factories began to be built. In particular, the first oil refineries were built by corporations on the islands of Singapore back in the 60s of the XX century [13].

Our objective study allows us to state that the policy to attract large world corporations to the economic activities of Singapore, which was carried out by the government of the country, first of all required the construction of modern technologies, which led to a stable growth of the country's economy. In particular, already in the second half of the 80s, without its own oil, Singapore became the largest center for its processing and trade in petroleum products in Southeast Asia.

As a result of a rational policy from 1965-1977, the share of the labor force employed in transnational corporations doubled from 26% to 52%, and their share in the production of total value added increased from 44% to 63%.

Thus, it can be safely stated that the initiative of the Government of Singapore to attract transnational corporations to the country played one of the important roles in improving the social situation in the country.

It should be noted that already in the late 60s, XX centuries, Singapore began to actively integrate into the global market. In particular, from 1965 to 1971 years industrial exports grew from 10% to 50% of GDP. Average annual production growth was 20% in 1975 and 10% in 1981 [14].

Conclusion Summing up, we can state that over a short historical period, the country's leadership was able to introduce innovative development methods in Singapore, which positively played a huge role in the country's socio-economic situation. In particular, the introduction of innovations in all areas of development allowed the Singapore government to solve such socio-economic difficulties as:

1. New jobs were created that allowed Singaporeans to improve their social status;
2. In a short period, it was possible to provide all citizens of Singapore with their own housing;
3. The government of the country began to actively invest financial resources in the education system, which created new conditions for research work;
4. In a short period of time, Singapore has become the so-called a training ground for transnational corporations, most of which have transferred their head offices to the territory of a city-state;
5. Created its own infrastructure for oil refining, beginning to positively affect the country's economy.

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SYNONYMY AND ITS RELEVANCE TO LEXICOGRAPHY

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ABSTRACT
This article discusses the main perspectives of computer lexicography, which is a section of applied linguistics. Electronic dictionaries make it possible to present the contents of a dictionary entry in different ways, including using a variety of graphic and multimedia tools that are not used in ordinary dictionaries.

KEY WORDS: information technology, electronic, lexicography, linguistic, synonymy

INTRODUCTION
Information technology is currently an integral part of any area of professional activity, including linguistics. And if once the use of computers and related programs in linguistic research, translation and language training was not mandatory, future teachers of foreign languages, translators and linguistic researchers need competencies related to the use of information technologies in their professional field of activity. The development of information technology in recent years has made it possible to learn a language not only from traditional “repositories” of language data, such as dictionaries, literary works, written texts, but also to large arrays of texts called corpora.

Computer lexicography is a section of applied linguistics aimed at creating computer dictionaries, linguistic databases and developing programs to support lexicographic work. The main tasks of traditional and computer lexicography are to determine the structure of the dictionary and areas of the dictionary entry, as well as the development of principles for compiling various types of dictionaries.

LITERATURE REVIEW
The dictionary is traditionally defined as an organized collection of words with comments that describe the features of the structure or function of these words. An electronic (automatic, computer) dictionary is a collection of words in a special computer format intended for human use or which is an integral part of more complex computer programs (for example, machine translation systems). Accordingly, it is subdivided into automatic dictionaries for word processing programs. Automatic dictionaries intended for the end user are most often computer versions of well-known conventional dictionaries, for example:
• Oxford English Dictionary (www.oed.com),
• Collins Automatic English Dictionary (www.mycobuild.com),
• Ozhegov’s online dictionary (http://slovarozhegova.ru).

Automated dictionaries of this type practically repeat the structure of the dictionary entry of ordinary dictionaries, however, they have functions that are not available for their prototypes, for example, they sort data by fields of a dictionary entry (compare the selection of all adjectives), they automatically search for all vocabularies that have a certain semantic component in interpretation, etc. Automatic dictionaries for machine translation systems, automatic abstracting, information retrieval, etc. These programs that interact with them set features of their structure, the scope of vocabulary material. Such a dictionary may contain from one to hundreds of zones of a dictionary entry. Areas of lexicographic description are extremely diverse: morphological, lexical, syntactic, semantic, etc. The structure of a traditional dictionary usually includes the following components:
• an introduction explaining the principles of using the dictionary and providing information on the structure of the dictionary entry;
• a vocabulary that includes dictionary units: morphemes, lexemes, word forms or phrases; each
such unit with a corresponding commentary is a dictionary entry;
- pointers (indices);
- list of sources;
- list of conditional abbreviations and alphabet. In electronic dictionaries of the aforementioned components, perhaps only a vocabulary is mandatory; online dictionaries have an alphabet with hyperlinks behind each letter leading to the text of the dictionary entry. Almost every electronic dictionary offered on disk (offline dictionary) or on the Internet (online dictionary) has an automatic search function, which significantly saves the user's efforts when working with the dictionary.

The difference between electronic and paper dictionaries also concerns their multimedia and textuality: these properties are expressed in electronic dictionaries to a much greater extent than in printed ones. Therefore, hyperlinks can be embedded behind any element of a dictionary entry or in a program menu item in a dictionary. This gives the user additional opportunities for searching and quickly moving to the necessary vocabulary information, allowing you to find synonyms and antonyms for a given word, words of the same semantic group, declension and conjugation paradigms, etc. Hyperlinks also make it easy to link different dictionaries to each other, so that online or offline dictionaries end up being collections or portals of dictionaries. Having received the necessary information, on the meaning of a word, the user can click on the comments of this word in other dictionaries and learn the features of its interpretation in special branches of knowledge (terminological dictionaries) with one click of a link or receive additional linguistic information about its form.
- lexical entry (vocabulary, lemma);
- area of grammatical information;
- area of stylistic device;
- area of value;
- area of phraseological units;
- area of etymology;
- area of example and source of example.

**ANALYSIS AND RESULTS**

We can distinguish zones of a dictionary entry, mandatory for all dictionary units, and optional zones. The obligatory zone of a dictionary entry for different types of dictionaries is only a lexical entry; all other zones depend on the type of dictionary: for example, for an explanatory dictionary, a zone of meaning is necessary, and for an orthographical, it is optional. The phraseology zone is absent in the comments of words that are not used in stable combinations, and the presence of the example zone and its source depends on the principles underlying the creation of the dictionary. The number of dictionary zones in a computer dictionary usually exceeds the number of zones of a dictionary entry of a “paper” dictionary, which is caused by significant memory resources and high speed of digital information processing by modern computers. But the volume of the proposed dictionary information should correspond to the type of dictionary: if the reader needs pronunciation, then the "extra" information about the translation of the word being checked or its contextual meanings will only interfere with the user. The classification of computer dictionaries can be carried out on the same principles as the classification of ordinary dictionaries. Linguistic, encyclopedic and intermediate (linguistic and regional and terminological) dictionaries are traditionally distinguished. Linguistic dictionaries describe the words themselves - their meanings, usage patterns, structural properties, compatibility, correlation with lexical systems of other languages, etc. Encyclopedic dictionaries describe the concepts, facts and realities of the world, i.e. extra linguistic information. The intermediate type of dictionaries includes information of both linguistic and extra linguistic genders. Several types of linguistic dictionaries can be distinguished:
- explanatory, with the aim of interpreting (explaining) the meanings of words and their use in speech, including descriptive and normative dictionaries, which can be general and private, among the latter stand out, for example, phraseological dictionaries, dictionaries of foreign words, etc.;
- dictionaries-thesauruses differing in the location of the dictionary entry, which is subordinate not to the alphabetical, but to the thematic principle, for example, the thesaurus of English idiomatic includes the semantic field “CARE, DEPARTURE, FLIGHT”, which is placed in the category “MOVEMENT”, the semantic field “FORMER” is placed in category "TIME", etc.;
- bilingual (translated) dictionaries, for example, “English-Russian Dictionary” V.K. Müller (1st edition appeared in 1943), "French-Russian Dictionary of the Active Type", ed. V.G. Gaka and J. Triomph and others;
- associative dictionaries, the object of which is the field of associative relations in vocabulary; the dictionary article of such a dictionary includes a stimulus lexeme and a list of reactions ordered by frequency and alphabet (indicating frequency) obtained in a psycholinguistic experiment, for example: “Associative thesaurus of the modern Russian language”;
- historical and etymological dictionaries, providing information on the history of words, starting from a certain date over a period of time, indicating the
emergence of new words and meanings, their death and alteration, or explaining the origin of words;
• dictionaries of linguistic forms that capture the peculiarities of word form and in which interpretations of meanings are absent or play an auxiliary role, for example, spelling, word-building and morphemic (show how words are composed of morphemes and inventory them), grammatical (information for each word, allowing you to build any grammatically correct form), reverse dictionaries;
• dictionaries of speech use: dictionaries of difficulties and combinability of words;
• non-traditional, subject to vocabulary description of atypical linguistic objects, for example, “Dictionary of Russian political metaphors” A.N. Baranova and Yu.N. Karaulova, dictionaries of poetic metaphors, epithets, author's dictionaries and concordance dictionaries.

Electronic encyclopedias such as the Encyclopedia Britannica (www.britannica.com), the Great Encyclopedia of Cyril and Methodius (www.megabook.ru) and the encyclopedia (www.krugosvet.ru) are known. Examples of translated electronic dictionaries are ABBYY Lingvo (www.lingvo.ru), (www.translateit.ru) and Multitrans (www.multitrans.ru).

Electronic explanatory dictionaries are the Merriam Webster dictionary (www.merriam-webster.com) and the French dictionary “Tresor de la langue francihése” (http://atilf. Atilf.fr). The formal electronic dictionaries are the spelling dictionaries of the Russian (http://slovari.yandex.ru) and English (www.spellcheckonline.com) languages.

Computer dictionaries are usually created on the basis of text corpora using automatic processing and search for dictionary units. For this, special programs are involved - databases, computer filing cabinets, word processing programs that allow you to automatically generate dictionary entries, store dictionary information and process it. Therefore, the creation of an electronic dictionary, according to A.N. Baranov, includes the following steps:
1) the formation of the corpus of texts and the parallel creation of a vocabulary;
2) automatic case formation of examples;
3) writing dictionary entries;
4) entering dictionary entries into a database (DB);
5) editing dictionary entries in the database;
6) proofreading text in the database;
7) generation of the dictionary text and the formation of the original layout;
8) printing dictionary.

Terminology of any subject area is part of the national language therefore, obeys to the common linguistic laws. It has the same processes in the language as a whole. According to the terminology, we understood as “a set of special lexical language units denoted by those who want to understand a certain field of knowledge or activities spontaneously developing in the process of its origin and development”.

Requirements for special lexical units (semantic accuracy, stylistic neutrality, no doublets, etc.), should include parallel use of synonymous in terms - the use of several special lexical units to designate a single concepts. However, synonymy in terminology all areas of scientific knowledge including in the field of teaching foreign languages is determines one of the important and at the same time debatable phenomena in terminology. In consequence, of this, the problem that indicated by us is relevant and caused by a number of reasons.

Firstly, the number of dictionaries that deal with the terms of methods of teaching languages is very few.

Secondly, the interpretation of terms various in different dictionaries.

Thirdly, when writing research in the field of language teaching methods, scientists are faced with multifarious approaches to define terms. This is especially true for the emergence of new terms that have not been reflected yet in modern dictionaries. Thus, for example, the concept of “applied linguistic cultural studies” has recently become used. It “finds application in the methodology of teaching foreign languages in the creation of textbooks, dictionaries, and methodological developments based on a conceptual approaches.” At the same time, some scientists believe that applied cultural linguistics is a synonym for the term of linguistic and cultural studies. “Lingua culturology and linguistic cultural studies are terms that generally call the same area of knowledge.” Our analysis of several termini graphic sources showed that synonymy is a fairly common phenomenon in the terminological system of the methodology as a science in general and language methods teaching. The term “methods of teaching languages” was firstly introduced by E.G. Azimov and A.N. Shchukin in the "New Dictionary of Methodical Terms and Concepts (Theory and Practice of Teaching Languages)" and is considered as "a set of terms used in this science: serves to denote the concepts of the methodology and ensures the scientific accuracy of the presentation". In modern terminology, the synonymy of terms and terminological combinations by scientists is evaluated differently. Some researchers consider the presence of synonyms for a term to be its negative property that the term should not have options or doublets (V.P. Danilenko, D.S. Lotte and others).

E.N. Tolikina notes that “the language of science is not emotional,” so the terms can be included in synonymous relations only as doublets. Other authors
(BN Golovin, R. Yu. Kobrin, LN Rusinova, SD Shelov, etc.) indicate that the synonymy of terminological designations is a virtue, indicating a high level of science development, that’s why interchangeability is possible. Terms in certain situations contribute to the empowerment of a special language of specific professional and communicative tasks.

According to the degree of correlation of meanings, terms with absolutely identical meaning (absolute synonyms) and with relatively identical meaning (relative, or conditional, synonyms) are distinguished. In turn, among the absolute synonyms there are variants - absolute synonyms resulting from the corresponding variation of the form of the term, and duplicates - absolute synonyms that have a different form, identical in meaning and interchangeable in context. All types of synonymy are reflected in the terminology of the teaching methods of languages, and the phenomenon itself is widespread.

CONCLUSION

Electronic dictionaries have positive aspects not only in the process of their creation, but also in the process of use. In particular, the following advantages of using electronic dictionaries are distinguished:
1) electronic dictionaries make it possible to present the contents of a dictionary article in different ways (various “projections” of a dictionary), including using a variety of graphic and multimedia tools that are not used in conventional dictionaries;
2) displayed information reflects various technologies of computer linguistics, for example, morphological and syntactic analysis, full-text search, sound recognition and synthesis, etc.;
3) it becomes possible to quickly obtain information that is contained somewhere in the bowels of the dictionary and directly meets the request formulated by the user in a form convenient for him;
4) an electronic dictionary allows you quickly respond of changes in the language and the world, and the release of each subsequent version of it or making changes to the online version does not take much time and labor.

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THE IMPORTANCE AND RELEVANCE OF SOCIAL CONSCIOUSNESS IN UPBRINGING YOUNG ATHLETES

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ABSTRACT
Increasing the knowledge and skills of the trainers in Uzbekistan, the organization of international educational and scientific-practical seminars, the involvement of trainers in these seminars in all regions of the Republic, strengthening their theoretical and practical knowledge with the help of the best specialists of international sports federations and organizations the biosocial knowledge that teachers and coaches need to know about the future of young people which is the main factor causing the birth of a generous person as it is mentioned in this article.

KEY WORDS: physiology, sports equipment and mental resources, upbringing young athletes, physical education, sports, talented athletes.

DISCUSSION
When it comes to strengthening the health of the population, in particular, the education of the younger generation as healthy and harmoniously developed individuals, first of all, we see the great attention paid to the development of children's sports in our country and the results achieved. After gaining independence, much attention was paid to physical education and sports. Our athletes are making good results in the Asian and world tournaments and raising the flag of Uzbekistan. One of the most important tasks of our time is to train talented athletes, who raise the flag of our country at the three-tier sports games "Umid Nihollari", "Barkamol avlod" and Universiade. Therefore, one of the most important and urgent issues facing teachers is that it is not only the responsibility of educators but also the duty of every human being to realize that the next day is to educate young athletes, bring up healthy, harmoniously developed generations. It should be noted that in recent years international training and scientific-practical seminars have been organized to improve the knowledge and skills of coaches operating in Uzbekistan. These seminars involve coaches from all over the country, strengthening the theoretical and practical knowledge under the guidance of the leading experts of the International Sports Federations and Organizations.

The bio-social knowledge that teachers and coaches need to know is the basic set of practical and theoretical knowledge that will enable young people to become adults. For this reason, the following methodological approaches will be instrumental in the formation of athlete reserves. Functional resources of the athlete include biochemical, physiology, sports equipment and mental resources. Functional resources systems are the basis of other resources in the body, and when other physiological functional systems develop, other reserves develop. Changes in functional systems in response to various unusual factors are governed by the metabolism of certain nervous systems and glands, as well as by some substances in the blood. The development and use of athletes and functional resources are individual. For example, young athletes who are just beginning to use sports mainly use physiological and biochemical resources while exercising and competing. The above is a summary of the biological aspects on which it is based. At the same time, social foundations play a key role in the education of this younger generation. The mind, which controls the mental state of this young generation, must have a set of knowledge, which is based on scientific knowledge for the development of sound thinking. The importance of nurturing the human mind as it age is emphasized. It is well-known that every person's consciousness grows from birth to life. It is natural to wonder why age changes in the human mind. Each person's development of his or her mind depends on the growth of the human body, the influence of the social environment, education and upbringing, as well as the individual's own activities.

The following are some of the key factors that contribute to developing young athletes and young people in general.

The baby's body grows and matures. Certain organisms grow and develop, and the quality of these organs changes. The nervous system develops and
becomes stronger. For example, the weight of the brain doubles by the time a child reaches one year of age, and by the age of four or five, the weight of the brain is tripled. Brain growth continues until the age of 20 and sometimes even afterwards. The baby is born with unconditional reflexes, but conditionally reflexes also occur during the first month of life. There is a high human function, which Paul Pavlov called this function as the second alarm system.

As mentioned above, according to Paul Pavlov's teaching, the mechanisms of the second alarm system are the neuro-physiological basis of reason and verbal and written speech. However, the growth of the organism does not yet determine the person, the content and the forms of his or her mental life. The child is not born with ready-made knowledge and skills, imagination and ability. The psychic life possibilities associated with the growth of the organism should really not only grow, but also live and grow in social environment, among people.

It is well known that kidnappings of wild animals (monkeys, wolves) in infancy, and the fact that these children survive and grow without interfering with humans. However, such children have not developed human mental abilities according to their age. These facts show that the growth of an organism outside of human society alone does not contribute to the psychological development of the individual.

With the growth of the organism, including the growth of the nervous system, there is only a chance for the development of the content and forms of mental life. The reason for this is that people live and grow in a social environment. A human being is not a biological species but a human being.

Interpersonal relationships are important in a person's main attribute as his or her social status, as well as his / her high form of mental life and language, which is a means of communicating with people.

Also, regardless of their relationship, from the moment they are born, it is inherent to all the basic mental content of a person, and is generally directed against the idealistic views that everyone claims to have been prepared by self-awareness. Outside society, human beings cannot be human beings, and social interactions between people are determined by their relationship to the workplace, to the social production process. The human being becomes more conscious because of the relationship with others, and his or her mental life has some meaning. The more meaningful and diverse these relationships are the more emotional and colorful a person's life will be. The highest sign of human consciousness is his or her self-awareness and important self-awareness. And, as it does, isolates its individuality and subjectivity in the surrounding environment. As a person who knows the world around him and influences the world, everyone is a subject, and what the person perceives, imagines, thinks, speaks about and influences is the object for him. A person's self-awareness is expressed subjectively to the perception of himself as "I". As a human being is a social being, he has the ability to be self-conscious. But man is part of society and part of the universe, so he understands that he is connected with the universe, even though he is separated from the world around him. A person cannot separate himself from the world around himself, because the meaning of the person's mind, self-awareness, and "I" is a reflection of the reality of the person around him. At the same time, he realizes that he is inextricably linked to the universe, and deliberately treats himself, his work, and his responsibilities. To understand one's existence, to know who a person is - a student, a worker, a teacher, an engineer and so on, to understand their past and future, to understand their own rights and responsibilities, to understand their own merits and shortcomings enters into self-awareness.

Generally, as the human mind evolves and develops in the context of social historical life, each individual's consciousness is developed only in a particular social environment. From the moment of the birth of the child, in the conditions of social relations, formed in certain social conditions, forms of social consciousness are present; the child is influenced by working conditions, communicates and communicates with those around him. Of course, a baby does not work. But it lives and thrives in working conditions. The child is surrounded by things that are the product of social production; it uses labor results; older people work for the child, and then the child grows up, enters into some kind of labor, and has some kind of attitude towards labor. But other people address him in front of a child. The child grows up among the speakers, and after the child reaches a certain age, he begins to speak and speak. A child growing up will learn the language, and with the help of the language, he will gain the material and spiritual experience accumulated by previous generations while at the same time developing his own psychic powers. The environment in which a person is perfected is not unchanged. Every person and every child's mind is fully developed by the changing environment. In all circumstances, a child remains a boy or a boy. However, there are characteristics of adolescents and young people in terms of social life, living conditions, and culture.

The surrounding social environment affects the growing consciousness of a person, mainly in an organized manner. The higher the social formation, the greater the impact of the social environment on the minds of the younger generation. The human society is influenced by the education and training of children, and begin to gain skills. He studies first in a family setting or in a preschool, then in a school. While the environment (nature and society), labor and language are the conditions for the development of a person, they
are taught at school as they grow up and are used as tools for upbringing.

- What a person cannot gain in the growth of the organism and the spontaneous effects of the environment is acquired by the person in the process of education and training. For example, a child may also learn the native language under the spontaneous effects of the surrounding environment. However, reading and writing can be learned only through special education. Different movements of the human body improve as the organism grows and the conditions in which it resides. However, special work and technical skills and skills are acquired only through training.

- The defect which is the result of an inadequate organic perfection, is also corrected by education and training. For example, it is known that some children are born with some defects - blind, deaf (deaf, dumb). However, with the help of special education and training, such children grow up to their full potential.

- The disadvantages resulting from spontaneous adverse effects of the environment are also shifted to the right direction through education and training. For example, children at the age of 9-10 may occasionally develop some bad habits and habits such as smoking, playing cards, cursing, and so on. Good habits can be developed.

- Education and upbringing are progressive in the development of the individual. The spontaneous effects of the environment can bring human development to that level. Education and upbringing are the goals that go beyond this progressive society.

For example, in our pedagogical system, we aim to educate future people, a more mature person. Such a goal also determines the mental development of the younger generation, and promotes the development of genuine, purposeful, living, and working aspirations in young people. With this goal in mind, education and education are of progressive importance as they grow older.

- In the process of education, children acquire intellectual abilities, acquire a number of skills, and develop themselves. The level of maturity of children depends on their ability to acquire some knowledge and skills. The acquisition of knowledge and skills, in turn, allows children to grow physically and spiritually. In the educational process, the will and spiritual qualities of children will be improved and their outlook will be reflected. Education is an essential prerequisite for the awakening and development of one's natural abilities. Each person's growth does not depend solely on the growth of the organism, the environment and the influence of education and training; the perfection of each person is due to the active participation of the person who has reached that age. This activity is seen first and foremost when the child responds positively or negatively to the impact of the environment, on the teachers themselves. The way a child reacts to external influences depends primarily on the structure and function of the body, as well as on its needs. Depending on the characteristics of the growing organism and its emerging needs, some of the mental characteristics of the child begin to appear in early childhood. Accordingly, a person who is being perfected will absorb the effects that he or she has from childhood, different and varying degrees. An active relationship that is evident from the early days of a child's life becomes an activity later. This activity means that the person is exposed to the natural environment, social environment and to some people. If the child kept moving (not really, of course), his mental state would be undeveloped. Each individual's own development plays a major role in its development. A person's own development comes from activity. As a young person progresses, his or her own development becomes a conscious process, a form of self-discipline. Not only does it train others, it also educates itself. Therefore, everyone is to some extent responsible for his or her behavior from a certain age, and from school.

Today, the task of developing physical culture and sports in the Republic, education of the sons and daughters of the nation, strengthening the Uzbek family remains one of the main tasks of the society. We must not forget that children play sports not only to regain their physical strength and leisure, but also to promote healthy lifestyles, spiritual and physical development, to break free from various negative influences and addictions. In every home, parents not only give their children advice on the importance of physical education and sports, but also how they practice. Neither children are engaged from an early age, and it is certainly a habit in their daily lives. A common custom in the family is the child's companion in his life. In addition, the strength of a simple healthy habit helps the child to master the disciplines in the learning process. A child who is brave enough to start a job can do the same thing with patience. The health of children, their physical and sporting strength are the strong will of our generation. They should not forget the responsibility of parents, educators and coaches in the family to make their sports a strong will in today's generation, to be able to study and work, and to be healthy in their lives.

The text of the first President I.A. Karimov's study of the book “High spirituality is an invincible force” is based on the following: “The future of our country, the future of our people, the image of our country in the international community. We must never forget such a sharp truth.”

"It encourages the youth to develop a healthy way of life, a sense of respect for national and national values, from the earliest times so that there is no gap in our spiritual world."
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ABILITY TO NAVIGATE COMPLEX METHODS OF JUDO WRESTLING, ACCURATE INFORMATION AND ABILITY TO WORK

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ABSTRACT
The article focuses on the systematic preparation of judoists for competitions, training and freestyle wrestling, the formation of sophisticated methods of judo wrestling, the ability to navigate through accurate information, and the ability to do it.

KEY WORDS: successful training, physical qualities, enhancing athletic performance, athlete's achievements, freestyle wrestling.

DISCUSSION

Human beings have a wonderful ability to create something out of nothing. A man can perform great deeds of physical and mental strength (as well as the greatest mistakes). Wanting is the most powerful force in your goal. The mind is the driving force behind the development of humanity.

Therefore, one of the main tasks is to seriously engage in all stages of the training process, to properly understand all the components of judo, to analyze the level of wrestling on a scientific basis.

However, there is always a delay in the competition due to the fact that the analysis of the training process is not complete and effective. Understanding the mistake – we will never be able to link a positive action with regret. Nevertheless, sadness can change a person's life if directed properly. The feeling of regret is so strong that it is impossible for a person to go back.

The basic theoretical training in physical education is to provide a complete and effective course of training for the judo athlete, as a scientific interpretation for the sporting events and competitions that must be able to apply the rule of law. In particular, the development of a judoist must have the potential for a positive effect on the whole body, using a variety of techniques and maturing through various exercises. Every athlete knows exactly what exercises he or she needs, a clear understanding of the means, techniques, techniques of sporting techniques and tactics that allow for successful training of physical qualities and, of course, the will and competence lead to better outcomes.

It will take months and years to prepare for the competition, with a gradual but steady increase in physical training, increasing the volume and intensity of workouts, gradually completing movement and tasks, and making a more positive change in bodies and systems. A perfect system must be employed.

Judoist should be guided by the principle that physical activity needs to be repeated in order to create relevant reflections in each other, to create relevant changes in their bodies and systems. It is impossible to grow, improve and strengthen the results of training without repeated repetition of physical exercises and regular training.

Requires a judoist to tailor his personal characteristics, his strengths and abilities according to the strength and flexibility of the workout. Exercises, their form, character, intensity and duration, as well as performance modes should be relevant to the gender, age, physical fitness and health of the trainees. An individualized approach is important in the selection and implementation of physical exercises to enhance athletic performance by strengthening athletes' bodies and systems.

The central nervous system needs to be carefully and gradually improved. The desire to focus on changes in the upper nervous system of the judo is one of the key issues. He is always motivated to do something, not to stay in one place, to create his own personality. The first and most important secret to an athlete's success in
training and competition is keeping internal motivation low. Internal motivation is the "fuel" that can keep us warm and strong in times of failures and failures. It encourages action. Examples: "Champion, fulfillment", "Ideas, creativity", "Finding a place in life", "confidence", "Interest", "Health", "Feeling someone's need", "Personal development".

External motivation is something that demonstrates the athlete's achievements in the external social environment. Examples are: "money", "career", "status", "recognition", "prestige (home, apartment, car)", "high aesthetics".

The “travel opportunity” of an athlete is constantly changing. "Every athlete, along with the problem, receives the energy needed to solve it." It follows that an athlete will have energy only to solve the problem. The laziness is the lack of energy, that is, the lack of problems and tasks.

When motivating a team, it is important to remember that different factors influence different people. When one is motivated by the upward movement, the other is the back pain.

Those who go to the top pay little attention to comfort. They are motivated by personal accomplishments and organizational goals. Those who are motivated by pain and the surrounding conditions try to avoid opportunities that will push them out of their comfort zone. They are more focused on the process than task. They move forward only if something from the back makes them move forward.

At the same time, job satisfaction depends on the correlation between motivating (internal positive) and supporting (external positive) factors. The supporting factors are money, conditions, special tools, security and reliability. Development, achievement, accountability and competence are the motivating factors.

It would not be possible if there were no factors in both groups. If there are only supporting factors, the dissatisfaction rate will be minimal. If there are only motivating factors, the athlete will love the job but cannot allow it. If there are factors in both groups, the job is the most enjoyable.

SELF-MOTIVATION IN BALANCE

If you know where you are coming from and where you are going, you can plan ahead and achieve it. Every successful move starts with a desire.

A leader is a person who is motivated by internal motivations and who for a certain period of time refuses external motives (delayed reward). Therefore, a leader's motivation is only internal positive or negative motivation.

- It starts with a dream.
- Long-term goals for achieving the dream are identified and recorded.
- Long-term goals are divided into short-term goals - short-term goals.
- Create a daily plan for short-term goals.

In this inspirational process, why ask for such boring things? This is because motivation is just the engine of the locomotive. To reach the destination, a driver needs to know the location of the address, the rails to get to this location, and the people who will ensure the car's operation. That is, motivation without specific goals is like a firework. There is plenty of noise and light, but it is useless.

I have written in other articles about planning and setting goals. So I'm not going to list them here. But remember that the most important thing is to set goals and plan.

HOW TO OVERCOME INTERNAL RESISTANCE

Hide the internal sabotage within each of us. This is the negative side of our personality. He is very dangerous and cunning. It always appears when you don't expect it. It stops us from starting a promising business, or does everything it can to get back to where you started. Recognizing and understanding it is important for you to work on yourself. When you want to start doing something that is important to you, he raises his head and starts speaking quietly: "Why do you do this? Everything is useless ", Live like everyone else ",& You cannot be better than everyone else, quit your job. "These and similar ideas from your negatives can stop you from starting a new business and undermine your interest in any activity.

Suppose you are hiring a company that can grow and develop. You are young and energetic. You want to post something that can be successful. This could be a new way of selling or technical innovation. But when you are just about to get started, your internal saboteur will lift up and quench your enthusiasm. He will tell you:

What if you don't feel like it?
What if your colleagues don't support you? They will laugh at you.
You have plenty of other things to do, and you have no time for it.
Every fool knows that this is impossible.
You are too young to do such things.
You cannot overcome so many obstacles.

One of his favorite ways is to postpone it. He uses this technique many times and bases it on: "Not now, I'm getting old", "No need to rush", "I'll start this next week (month, year)" and so on. Next week, he'll come up with an excuse to leave it for another week. It will find different excuses, weather, lack of time, conditions, and ensure that you do not succeed.

The way to get rid of its negative impacts is to navigate in clear form information.

REFERENCES
SOME REMARKS ON KEEPING THE AUTHOR'S STYLE IN TRANSLATION
(By the example of Sadriddin Aini's works)

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ANNOTATION
This article discusses the successes and failures of translating the works of the great Tajik and Uzbek poet-writer Sadriddin Aini through French into Russian, and how the Russian translator S. Borodin turned proverbs, parables, and realities, that the French translator V. Vuano also translated some articles in the original text, used by the author to represent some portraits of heroes, the methods of simulation and comparison, based on the "art of interpretation", have not been translated into French because of the lack of translation. As a result, it is stated that the author's style has been compromised and that the artistic and national color are not fully reflected.

KEYWORDS: Translation, style, French Oriental scholars, real words, field, originality, text, proverbs, word by word

DISCUSSION
It is well-known that the important source of world literary criticism is the links between the East and the West, so the strength of these links is important. Determining the evolution of the history of human literature at different times is a challenge. Literary relations of the East and the West are mainly supported by the emergence of romantic style in the beginning of the 19th century by typological comparisons and comparisons in the study of folk literature. The literary relationship between East and West is as much as possible in this study. It is due to the fact that the Western comparativeists M. Posnet, J. Amper, N. Conrad. At the same time, along with these literary critics, Persian-Tajik comparisons play an important role in the literary relationship between the East and the West. Realizing the urgency of the matter, Persian-literary scholars in the late 50's began a series of studies. It is permissible to divide the Persian-Tajik comparative studies into 3 groups.

The first group includes such scientists as A. Sayfullaev, V. Belan, H. Shodiqulov, Y. Akbarov. The second group includes scholars who have thoroughly studied the relationship between Tajik literature and the literature of the former Soviet Union, and have written meaningful pamphlets.

The third group includes scholars dealing with the East and the West. A. Sayfullaev, V. Samad, G. Shahidi, Sh. Mukhtar, L. Malkina, R. Dehoti, Sh. Muhammadambarovs in general, Most of the studies by Tajik Comparators are based on the works of great Tajik poets and writers, such as Firdavs, Khayyam, Saadi, Khafiz, Jomi.
Tajik writers have written many works throughout the century. Of these, noteworthy is the translation into Russian of the world. That is why the task of literary scholars in recent years has been a difficult and honorable task of creating a history of literary relations in the study of international relations of Tajik literature. But we understand that the work of great figures and their connection with literature of other worlds cannot make important research without studying the works of great Orientalists. Therefore, we consider this article to be a piece of great research. The works of Tajik and Uzbek poet and writer Sadriddin Aini are also multi-volume. We consider it desirable to include pages from the Second World Literature Book. Certainly, the fact that a number of his works have been translated into French by Russian (indirectly) is also a good deed to strengthen their literary links. It is important to study the links between Eastern and Western literature, and to determine how many scientific works have been created, including the share of literary scholars. First of all, it is important to note the influence of French revival literature on S. Aini's works. In particular, it is known that Aini's revolutionary style was created under the influence of revolutionary songs such as "Marcel" and "International." A thorough examination of all the works of French orientalists about the Ainine art is an important issue from the point of view of the aesthetic principles of French contemporary literature.

The work of the writer "Death of the Moneylender" "Смерть ростовщика" has been translated into Russian through many languages of the world. Given the French translation of this work, S.A. "Смерть ростовщика" translation from Tajik S. Borodin 1957 y. S.Aini La mort de l’usurier traduit du tadjik et russe par S.Borodine et V.Voinot. We see the successes and failures of the French translator B.Biono Russian translator S.Borodina. Just as the Russian interpreter provided authenticity in the original text, Biono sometimes appeared to fail to reflect the fullness of the national calorie.

One of the important parts of the linguistic field is translation studies. In the course of translating one language into another language, the words and phrases inherent in the originals of literary works, ie torisma, are given in the form of a link under the translation of real words in translation studies, given that the names of the objects do not exist in another language.

If we look at the real words in the works of the great Tajik and Uzbek writer and poet Sadriddin, the author's own style (popular style) reflects the traditions of the 19th century modern history and events of the literary environment of the time. It is well-known that almost all of the original works of S.Aini have been translated in a number of languages. Among them are “Death of the Moneylender”, “The executioners of Bukhara”, “Memories”, “Slaves”, “Old School”. However, all translators made it through Russian. The French translator V.Vuano translated the work of the writer "The Death of a Judge" by a Russian translator, S. Borodin. As is well known, the interpreter has his own style. The French interpreter also repeated some of the mistakes made by the Russian translator. We see that some articles and proverbs that reflect nationality and originality are translated as follows.

In fact:
... афус ва надомат суд надойи, чунки тир аз камон части ва мурги матлаб аз дом раста буд. С.Айни марги судхуру. Д. 1954 сах 22.

Russian translator S. Borodin: ржаливься бьло поздно, вздыхать и сожалеть, бесполезно, стрела вылетела из лука, птица вырвалась из сизилков (С.Айни Смерть ростовщика. Пер с таджикского, С.Бородина стр. 50). In fact, we have noticed that an interpreter gives the article in the text as an interpreter.

The word “Мурги матлаб” is replaced by the word "птица" in Russian.

Just as Russian translator S.Borodin has translated a number of proverb and sayings, we can see that B.Vuano did the same. Another example: the original “чир зарар дорад шавад лалмуй гён аз вай хура мепурсам.” С.Айни. “Марги сутхур” саз. 8.

In other words, it was inevitable. Russian translator "я спросу его о колье как говорят в пословице "либо вийте либо нет либо дождик либо снег" (С.Айни. Смерт рос. Пер. Таджик. С.Бородина стр 40.)


The French translator literally quoted an article in the text. A number of articles expressing national spirit, national coloring, in fact, express the writer's style, full understanding of the people's spirit...
and way of life, but we have found that in some cases translators have not translated them: “Рох зану эхсон кун” (С.Айини М.с.с. 107) “Дуда бошо беиносф (С.Айини. Магри Судхожу. Д 1951. С 126)” “Аз борон гурухта ба новадан афтодан” (С.А. М.С. Д. 126) “Оданро одам вайрон мекунад, оламро об” (С.А. М.С.Д. 1951 С 108.)

There are many translators who translated Sadriddin Aini's works into Russian, some of them trying to preserve the writer's original style and nationality, and in general, we have seen that the reader is able to reach the maximum understanding that the writer's style, in his capacity as an artist, was kept away from the original in order to preserve the spirit, nationality and image of the work as much as possible.

As we have seen, joining in the text of consonants turns the writer away from his style and into artistic style, and does not correspond to the language of the Tajik people.

In the translation of the famous Russian translator S. Borodin Sadriddin Aini, it is sometimes understood that the writer's style, in his capacity as an artist, was kept away from the original in order to preserve the spirit, nationality and image of the work as much as possible.

The writer to the Russian reader, that he did not know the customs of the Tajik people, his experience, it did not diminish the artistic level and maturity of his works. (From a letter from S. Borodin to the author of these lines - IYALAN. Taj. SSR. Department of Tajik Soviet literature).

In the book "Death of a Moneylender," S. Aini was so skillful in portraying a portrait of heroes, especially (Portrait of Kari Ishkamba). He was also able to express his attitude towards this hero, by which he never pressed the reader on his own terms. In the Tajik literary language there is a method of simulation and comparison, called "art of the word".

At the Death of a Moneylender, Ishkamba actually graduated from a special school to memorize the Qur'an, so we can see that the writers, who achieved the title "Qari" (ie the Quran), skillfully demonstrate that the "religious scholars" have masked religion and served it for their own benefit.

Kari Ishkamba always repeated the following verses of Jalaluddin Rumi:

Originality: Ақлро бенуру бераван қунанд (IV. 103)

D.B. Translations in French:

ne vas pas au village,
le village avale s’épuise,
son esprit s’estompe.

With this, the writer's wish is to gain comfort through the Bytes of Jalaluddin Rumi's by Ishkamba, constantly trying to make a lot of money in the eyes of the people, pretending to be religious and educated, and their true aim is to find a way to make more money, proves to be a deceiver, a usurper, a hypocrite, however, it should be noted that the Russian translation of S. Aini's works was left in the six-volume collection of selected works, as above, as well as its contents and its completeness. The importance of this passage is also noted by I.S. Braginsky (The life and work of Sadriddin Aini. M. 1959.P. 162.).

Studies show that translators who translated Sadriddin Aini's works into Russian (O. Sukharova, A.Z. Rosenfeld, and S. Borodin), were close to the author's style and were able to convey his artistic skills more deeply.

Thus, young Uzbek literary scholars have the opportunity to study the works of well-known theorists of world literature in the field of literary translation and to directly translate the works of great poets and to further strengthen and develop the literary relations of the East and the West.
REFERENCES

A FINITE ELEMENT FOR THE ANALYSIS OF DRIVING SHAFT

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ABSTRACT
The paper presents methodology analyzing a drive shaft failure cause of a system using structural approach based on and other advanced methods. The procedure is useful, not only for the analysis, but also for identification, comparison, and evaluation of the failure cause. The method permits analysis, identification, and comparison a design as well as operating, functioning state of the system and provides the user directions for improvement of the system’s reliability.

DISCUSSION
Therefore they must be strong enough to bear the stress, avoiding too much additional weight as that it would turn increasing their inertia. To allow for variations in the alignment and distance between the driving and driven components, drive shafts frequently incorporate one or more universal joints, jaw couplings, or rag joints, and sometimes a splinted joint or prismatic joint.

The above demonstrated drive shaft with universal joints at each end and a spline in the centre.

The term drive shaft first appeared during the mid 19th century. In Stover’s 1861 patent reissue for a planning and matching machine, the term is used to refer to the belt-driven shaft by which the machine is driven. Driving shaft refers to the shaft transmitting power from the machine’s wheels to the gear train that works the cutting mechanism.

An automobile may use a longitudinal shaft to deliver power from an Automotive drive shaft. Engine transmission to the other end of the vehicle before it goes to the wheels. A pair of short drive shafts is
commonly used to send power from a central differential, transmission, or transaxle to the wheels. Now, we are demonstrating a Truck with two propeller shafts. In our research we analysed, experimented, compared with other shafts. Analyses demonstrated (or transmission) mounted directly on the engine, with a drive shaft leading to a final drive in the rear axle. When the vehicle is stationary, the drive shaft does not rotate. Some vehicle (generally sports cars, most commonly Alfa Romeo or Porsche 924/944/928 models), seeking improved weight balance between front and rear, use a rear-mounted transaxle. In some non-Porsche models, this places the clutch and transmission at the rear of the car and the drive shaft between them and the engine. In this case the drive shaft rotates continuously with the engine, even when the car is stationary and out of gear. However, the Porsche 924/944/928 models have the clutch mounted to the back of the engine in a bell housing and the drive shaft from the clutch output, located inside of a hollow protective torque tube, transfers power to the rear mounted transaxle (transmission + differential). Thus the Porsche driveshaft only rotates when the rear wheels are turning as the engine mounted clutch can decouple engine crankshaft rotation from the driveshaft. So for Porsche, when the driver is using the clutch while briskly shifting up or down (manual transmission), the engine can rev freely with the driver's accelerator pedal input, since with the clutch disengaged, the engine and flywheel inertia is relatively low and is not burdened with the added rotational inertia of the driveshaft. The Porsche torque tube is solidly fastened to both the engine's bell housing and to the transaxle case, fixing the length and alignment between the bell housing and the transaxle and greatly minimizing rear wheel drive reaction torque from twisting the transaxle in any plane. A drive shaft connecting a rear differential to a rear wheel may be called a half-shaft. The name derives from the fact that two such shafts are required to form one rear axle. Early automobiles often used chain drive or belt drive mechanisms rather than a drive shaft. Modern automobiles use electrical generators and motors to transmit power to the wheels. It is considered that these evolved from the front-engine rear wheel drive layout. A new form of transmission called the transfer case was placed between transmission and final drives in both axles. This split the driving shaft to the two axles and may also have included reduction gears, a dog clutch or differential. At least two drive shafts were used, one transferring case to each axle. In some larger vehicles, the transferring box was centrally mounted and was itself driven by a short driving shaft. In vehicles the size of a Land Rover, the drive shaft to the front axle is noticeably shorter and more steeply articulated than the rear shaft, making it a more difficult engineering problem to build a reliable drive shaft, and which may involve a more sophisticated form of universal joint. It is noted that modern light cars with all-wheel drive may use a system that more closely resembles a front-wheel drive layout. The transmission and final drive for the front axle are combined into one housing alongside the engine, and a single drive shaft runs the length of the car to the rear axle. This is an effective design where the torque is biased to the front wheels to give car-like handling, or where producing both four-wheel drive and front-wheel drive cars with many shared components.
Here is a sample of Locomotive drive shafts. Whenever a complex structure is to be analysed it is common practice to divide the whole structure into a member of components using a general method structure for predicting the results for the automobile in other words drive shafts are responsible for a large portion of the overall static and dynamic behavior of most structures a good deal of research has been directed towards a better understanding of the behavior of drive shafts.

Drive shaft is a mechanical component for transmitting torque and rotation, to connect other components of a drive train that cannot be connected (direct) because of distance or the need to allow for relative movement between them as torque carries drive shafts are subject to torsion and the load.

The discussion was based on the automotive industry also uses drive shafts at testing plants. At an engine test stand a drive shaft is used to transfer a certain speed or torque from the internal combustion engine to a dynamometer. A "shaft guard" is used at a shaft connection to protect against contact with the drive shaft and for detection of a shaft failure. At a transmission test stand a drive shaft connects the prime mover with the transmission.

Marine drive shafts
On a power-driven ship, the drive shaft, or propeller shaft, usually connects the propeller outside the vessel to the driving machinery inside, passing through at least one shaft seal or stuffing box where it intersects the hull. The thrust, the axial force generated by the propeller, is transmitted to the vessel by the thrust block or thrust bearing, which, in all but the smallest of boats, is incorporated in the main engine or gearbox. The portion of the drive train which connects directly to the propeller is known as the tail shaft. The predicted results in this article are very productive. This problems associated with the transferability of driving shaft properties from laboratory test to large scale structures may be resolved.

USED LITERATURE
FEATURES OF AGRO TOURISM AND DIRECTIONS OF ITS DEVELOPMENT

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ABSTRACT

This article describes the importance, objective necessity and peculiarities of agro tourism in the development of tourism. The goals of agro tourism development and tasks arising from these goals are presented. Also, opportunities and factors for the development of agro tourism in the Bukhara region are shown. The model, stages of agro tourism organization and SWOT analysis of agro-tourism development are presented. Based on the regional peculiarities of Bukhara region, there are suggested routes to be implemented in the field of agro tourism.

KEY WORDS: tourism, agro tourism, rural tourism, ecotourism, tourism products, competitiveness, agriculture, tourism, income, employment, infrastructure.

DISCUSSION

Today, tourism and its types are developing in the world economy and agro-tourism, ecotourism, medical tourism can be examples of those types. Tourism has become one of the most profitable business in the world. It is an integral part of the market economy, rapidly growing network in many countries of the world turned. Tourism, transport, communications, trade, construction of world economy industries, agriculture, consumer good are developing indispensably and has its own place in the world economy.

According to statistics provided by the United Nations World Tourism Organization (UNWTO): “... tourism is the third in terms of profitability, fourth in exports of goods and services, and its share in the gross domestic product is 10%”

Agrarian tourism or agro tourism, as a direction of tourist and recreational activities, is inextricably linked with such concepts as types of tourism such as ecological and rural tourism. Many scientists and practitioners disagree on these three definitions, and therefore there are several points of view on how rural, agrarian and ecological tourism relate to each other.

Agro tourism is a sector of the tourism industry, focused on the use of natural, sociocultural, cultural, historical and other resources of the countryside and its specifics to create an integrated tourism product.

“Agro tourism is a type of activity organized in rural areas, in which comprehensive services are formed and provided for visiting guests for accommodation, recreation, food, excursion services, organization of leisure and sporting events, active tourism, fishing, hunting, knowledge acquisition and skills”.

With the establishment and development of agro tourism, rural population in the regions will be provided with jobs, their additional incomes will be increased, the profits of agrarian enterprises and tourist enterprises will be improved, and rural infrastructure will be improved. After all, tourism has proved to be a profitable industry. In some foreign countries, agro tourism remains a source of additional income for rural development and agriculture.

Consistent reforms to accelerate the development of tourism are being implemented in our country. As a result of the state support of tourism development as one of the strategic sectors of the economy, the country’s tourism potential is growing. According to the address which was directed to the Parliament by the president of Republic of Uzbekistan, Shavkat Mirziyoyev, tourism should be a priority for the strategic sector of the economy, with a great potential for accelerated development of medical tourism and other important tasks shown. [1].

Our country has huge opportunities for the development of agro tourism. Particularly during the years of independence, Uzbekistan has been known worldwide, its international friendships, cultural and
economic relationships are expanding and developing along with the nature of our picturesque villages, the labor and way of life of our people, from generation to generation, Foreign tourists are attracted by the lifelong traditions and values that are respected and polished.

Today, rural tourism is rapidly developing and has become one of the areas of tourism that attracts the attention of foreign tourists. Italy, Ireland, France, Switzerland, Spain, and Scandinavia are leaders in the development of agro-tourism. In these countries agro-tourism revenues make up 10-20% of tourism revenues.

Agro tourism plays an important role as one of the main types of tourism. A distinctive feature of agro tourism is that a tourist gets acquainted with agricultural animals, birds, poultry and plants, rural life and agricultural production during their leisure time. It provides emotional rest for tired and mentally retarded people from the busy streets and people of the city.

Lately, many tourists prefer to spend their holidays in the countryside, where they can live in rural homes for weeks, get acquainted with rural life, local culture and traditions, participate in traditional rural work. is possible. This type of tourism is preferred by many tourists who want to see the diversity. Most of the tourists who choose agro tourism are residents of big cities, tired of constant stress and a sharp pace of life. They want to spend their vacations away from the noise of the city, in a peaceful environment. This type of leisure is characterized by the use of natural, agricultural and other resources in rural areas.

In the conditions of innovative economy, one of the most important factors of sustainable socio-economic development of the region is the need for accelerated development of domestic tourism, development of agro tourism to introduce citizens with the cultural and historical heritage and natural resources of rural areas of the country.

Development of agro-tourism has its own peculiarities. Followings can be examples of them:
- Rural accommodation and meals cost 2-2.5 times cheaper than in the city;
- Environmental cleanliness in rural areas;
- Availability of environmentally friendly food;
- as an ethnographic tourism destination, preserving the national identity in rural areas

![Figure 1. The purpose of the organization of agro tourism](image-url)
For these purposes the following tasks should be implemented:
- Improvement of the rural tourism infrastructure, first of all;
- Second, to increase government support for the establishment and development of agro-tourism;
- Thirdly, to create a tourism brand and to promote their advertising;
- Fourth, the formation of an information and tourist base.

Among the regions of the Republic of Uzbekistan, Bukhara region is remarkable for its great tourism potential. There are more than 400 historical monuments in Bukhara, about 200 of which are located in rural areas. This will allow to combine several types of tourism.

There are a number of factors that contribute to the development of agro tourism in the Bukhara region. Including:
- There are agro services and goods that are typical of the Bukhara region, attracting foreign tourists and even locals (for example, the beauty of the karakul’s skin has impressed the whole world);
- The geographical location of Bukhara, that is, the desert and semi-desert areas, reflecting the peculiarities of the plants and animals that grow in the area;
- The location of the “Jayran” Eco-center in the territory of Bukhara region, etc.

Some agricultural enterprises and tourist firms in the region have manufacturing and service facilities and infrastructure facilities, which are the basis for the organization of agro tourism. That is, it is necessary to effectively use the opportunities of tourism (experience in the provision of services, hotels and other infrastructure facilities) and agricultural enterprises (manufacturing practices, field trips, and other existing infrastructure facilities).

The organization of agro tourism can be organized and developed in several stages. The table below shows the model and stages of agro-tourism development, and the steps to be taken at this stage.

Table 1.
Model and stages of agro tourism development

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Stages of development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>Model of agro tourism development</td>
<td>Farms, households</td>
</tr>
<tr>
<td>Accommodation</td>
<td>In the farmer's house</td>
</tr>
<tr>
<td>Food</td>
<td>Semi-boarding</td>
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<tr>
<td>Recreational activities</td>
<td>Horse riding, fishing, etc.</td>
</tr>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>Model of agro tourism development</td>
<td>Tourist villages, residential complexes and agricultural centers</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Specially designed buildings</td>
</tr>
<tr>
<td>Food</td>
<td>Semi-boarding, boarding</td>
</tr>
<tr>
<td>Recreational activities</td>
<td>Ecological excursion, ethnic tours</td>
</tr>
<tr>
<td></td>
<td>III</td>
</tr>
<tr>
<td>Model of agro tourism development</td>
<td>Regional agrarian complex</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Agrotourcomplex</td>
</tr>
<tr>
<td>Food</td>
<td>Only boarding</td>
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<tr>
<td>Recreational activities</td>
<td>Health-therapy, scientific tours</td>
</tr>
</tbody>
</table>

In the first stage, the housing facilities available to farmers can be used. For example, one can build his own home or build tents and grounds. In the second stage, it will be possible to create specially designed buildings that will require a certain amount of funds, such as dormitories, dining facilities, recreational facilities, and other facilities. It is advisable to organize recreational ecologic tourist of ethnic types. The third stage envisages the creation of agro-tourist complexes.

It is necessary to build high quality and standardized buildings. It should include dormitories, restrooms, dining rooms, treatment rooms, rooms for training programs and more.

The picture below shows the SWOT analysis of agro tourism formation. In other words, the strengths, weaknesses, opportunities and threats of the organization of agro tourism are listed.
### Strengths
- High agricultural production potential of the regions;
- High natural resources;
- Availability of historical and cultural monuments of world importance;

### Opportunities
- Increase of income of regions and rural population;
- Creation of additional jobs;
- Further development of entrepreneurship and craftsmanship in rural areas;
- Improvement of social infrastructure;
- Opportunity to save costs in using innovation.

### Weaknesses
- Underdeveloped rural and tourist infrastructure;
- Low competitiveness of agricultural products and tourism services;
- Unexplored rural tourist resource base;
- Lack of information base on tourism and agro-tourism;
- Lack of qualified personnel for the development of agricultural tourism;

### Threats
- Lack of legal framework for the establishment and development of agricultural tourism;
- Lack of normative documents on the establishment of cooperatives;
- Probability of environmental damage to the region.

#### Figure 1. SWOT analysis of agro tourism formation

According to the above analysis, the benefits, strengths and possibilities of agro tourism play an important role in the society’s life. Because nowadays it has been essential to improve the life standards of the population and to create new jobs.

Based on the regional nature of the Bukhara region, the following tourist products and services can be offered:

1. Meet the Karakul Miracle;
2. Melon tour, flower tour;
3. Camel and horseriding;
4. Familiarity with desert and mountain flora and fauna;
5. Preparation and consumption of various national dishes;
6. Organization of holidays for school children in summer camps (winter, summer, spring and fall);
7. Arranging introductory lessons on rural life for urban children;
8. The organization of “Green nature” programs for children;
9. Creation of “Production and industry” programs for foreign tourists;
10. Creation and purchase of craft products;
11. Acquaintance with rural life;
12. Recognize and participate in national traditions;
13. Preparation of various finished products from livestock products. For example, wool carpets, camel’s woolen articles, snowflake skin clothing, and so on.

In summary, agro-tourism is now a highly profitable field and holds a special place in the global tourism market. Although agro tourism may not compete with such large volumes as sea resorts, it does play a role in tourism. Agro tourism promotes domestic and international tourism, contributes to the living standards and welfare of the population.

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THE ORIGINALITY OF THE HEROES IN RUSSIAN LITERATURE OF THE XXI CENTURY

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ABSTRACT
The article discusses the role of Z. Prilepin in the context of modern Russian literature. His views on the formation and development of the literary process in the twenty-first century. Also revealed the main features of the imaging system in the works of Z. Prilepin. The article is devoted to the problem of the evolution of the literary hero and the types of heroes in modern Russian literature of the XXI century. The admiration of the person of the person being described and the desire to redirect this feeling to the reader make the style of the work of Zakhar Prilepin realistic through the prism of modernity (neorealism).

The aim of the work is to determine the transformation of modern Russian prose on the example of the works of contemporary Russian writer Zakhar Prilepin. His views on the formation and development of the literary process in the twenty-first century, explores the peculiarities of the hero and the specifics of the writer's artistic world based on the work and literary analyzes. Types of heroes’ characteristic of the prose of this neorealist writer: the hero-provincial, the rebellious hero, the intellectual hero and others. The article attempts to analyze the main features of the imaginative system in the works of Z. Prilepin in the context of the traditions of the new realism (neorealism).

KEY WORDS: Writer; creativity; literature; modern; versatility; specificity; new era; genre; concept; personality; transformation.

INTRODUCTION
Zakhar Prilepin is a writer who willingly and openly speaks on topics of concern to the public. One of the essential components of such statement is his reflections on classical and modern Russian literature; showing love or; on the contrary; dislike for the work of this or that author. It is not by chance that Z. Prilepin is known as a compiler of the rebellious hero, the intellectual hero and others. The article attempts to analyze the main features of the imaginative system in the works of Z. Prilepin realistic through the prism of modernity (neorealism).

The aim of the work is to determine the transformation of modern Russian prose on the example of the works of contemporary Russian writer Zakhar Prilepin. His views on the formation and development of the literary process in the twenty-first century, explores the peculiarities of the hero and the specifics of the writer’s artistic world based on the work and literary analyzes. Types of heroes’ characteristic of the prose of this neorealist writer: the hero-provincial, the rebellious hero, the intellectual hero and others. The article attempts to analyze the main features of the imaginative system in the works of Z. Prilepin in the context of the traditions of the new realism (neorealism).

KEY WORDS: Writer; creativity; literature; modern; versatility; specificity; new era; genre; concept; personality; transformation.

RELEVANCE OF THE PROBLEM
A popular writer with international fame; of course; is able to influence the formation of the literary biases of his readership: “Каждый раз я слышу от людей: читать нечего; помогите разобраться: что происходит вообще? Народ растерян: прозы нет; поэзия умерла... Я рассказывают подробно: такой-то пишет про это; вышла такая-то книга; ну и вообще о том; что творится с литературой...” [2, 232].

In Russian literature; from the point of view of Zakhar Prilepin; one can generally find “everything in the world of thought”; since it is “one of; the three world's strongest literatures”; even; in his opinion; is “the strongest”; which is “more expensive than oil and gas”; Classical examples of Russian literature for Z.
Prilepin are part of the “Divine” and “his own nature”; while he considers “to compare himself with the Russian classics” incorrect and inappropriate.

Note that “The Hero of Our Time” («Герой нашего времени») and “Anna Karenina” («Анна Каренина») are “two the most beloved” Prilepin novels of the 19th century – he “rereads every five years: and they are getting bigger and more beautiful” [2, 237]. And; despite the fact that the writer is deeply convinced of the viability of the modern Russian literary process; he is not ready to “seriously list the books of his contemporaries; separated by commas after “Divine Comedy” («Божественной комедии»); “Candida” («Кандид»); “Captain's Daughter” («Капитанская дочка»).

The fact that “many modern writers... do not read books themselves”; Z. Prilepin is ready to recognize “paradoxical”; because if the writers “were in the time of A.S. Pushkin and N.V. Gogol” just did not read contemporaries; wanting “to waste time” only on “really high-quality product”; then “they would not know the literature of the Golden Age” [3, 106]. The modern Russian literary process can be characterized as extremely heterogeneous; in the words of M.A. Chernyak: “motley; controversial; multifaceted” [3, 40]. Such “versatility”; which inevitably entails the emergence of “new names; genres; concepts”; is not at least connected with the natural adaptation of literature to the general socio-cultural situation and to its updated reader. It is curious that this adaptation occurs through the inevitable appeal to the past; to its deepest foundations. Many trends in the 2000s have existed before.

METHODOLOGICAL FRAMEWORK

Russian literature of “today”; according to Z. Prilepin; is “the surest thermometer”; showing “complete disintegration of values” at a time when “it was just a move to talk about normal things”; and “everything is a logical” [2, 241]. According to Zakhar Prilepin; the “failure” that was formed in literature in the 90s when “a thinking person; a reader... found himself in some wasteland” was overcome; and “literature began to regain its positions” [2, 242].

According to Zakhar Prilepin; the “failure” that was formed in literature in the 1990s; when “a thinking person; a reader... found himself in some waste ground”; was overcome; and “literature began to regain its positions again”. However; at the same time “several generations of writers appeared one after another; who allegedly don’t read each other” and if they do; “they don’t say much about these topics” [1, 243].

The writer clearly demonstrates this “breadth” of modern Russian literature in his collections and anthologies. Let us dwell in more detail on the collection “Conversations with Russian Literature” (“Named Hearts”); as well as here; with the exception of obvious educational functions; the report of which should be another; especially obvious. autopyscholism. Much can be learned from “Name Day of the Heart”; figuring out the degree to which Zakhar Prilepin’s reader’s sympathy for this or that artistic text depends on the manifestation of certain psychologically related features in him or in his author. The appearance of the author of the collection here is quite distinguishable.

The book is a collection of interviews with Prilepin modern authors; the choice of which he calls “deeply subjective”. The writer speaks only with those who are “interested” to him; with whom “fate has confronted him”; therefore the book is “isolated parts of a huge literary mosaic”. At the same time; the author explains that the book contains no interviews with the “living classics” of Russian literature like Valentin Rasputin; “many prose writers and poets of the older generation” and “Prominent critics and editors”; therefore; the collection does not at all claim to “A comprehensive portrait of literature”. In the “Preface”; Prilepin draws the reader’s attention to the fact that the list of questions he selected for “conversations” with different representatives of Russian literature is about the same; and the author of the collection “did not try to argue” with any of the interviewees; but “just listened” to each other; representing “a voice-over”.

From the very beginning of the book; this “voice” is distinguished by a surprisingly respectful; “cautious” tonality; since one of their first Prilepin interviews Leonid Yuzefovich – his “literary teacher”; a person endowed with “impeccable taste and hearing”; “Real master”. Yuzefovich's texts for Prilepin are somewhat comparable to Leonov's – they are also “with verandas; add-ins; dead ends; spiers” («с вёрандами; надстройками; тупиками; шпильями»); in them “the most amazing; rhyming; charming; secret structure of the world is important” («более всего важна удивительная; рифмующаяся; очаровывающая; потайная структура мира»). Yuzefovich-writer; in the opinion of Prilepin; is the creator of accidents that develop into a «kind of divine irony»; with which the author imparts a “philosophical sound”. Yuzefovich himself does not see a “thinker” in himself; considering that his “understanding of life is dissolved in the details of life itself” («понимание жизни растворено в подробностях самой жизни»). Such a self-characterization is quite consonant with Prilepa’s one: “I definitely don’t have my own philosophy. I am a person; rather; not thinking; but emotionally reacting to some things” («Своей философии у меня точно нет. Я человек; скорее; не размышляющий; а эмоционально реагирующий на какие-то вещи»). It should be noted that there are a lot of similar calls in the text of
this interview; and in the book as a whole; and it will be them who will receive our special attention.

Note that the consonant are also the views of Yuzefovich and Prilepin on the awareness of the significance of the historical past. Leonid Abramovich believes that “the broader historical reality a prose writer operates on; the more he sees coincidences” (“чем более широкой исторической реальностью оперирует прозаик; тем больше он видит совпадений»); that “the past is a lot can say ... because it is noticeably eternal” (“прошлое многое может сказать; ... потому что в нем заметно вечное»). Zakhar Prilepin; who invariably seeks answers to pressing questions in the 20th and 19th centuries and devoted a whole book to such “historical coincidences”; adheres to the same opinion (“No Stranger's Troubles” – «Не чужая смута» 2015). It is also obvious to Yuzefovich that the writer should first of all be concerned not with “what stories he chooses” for the narration; but their appearance on paper. “On time”, Prilepin is also thinking in the same direction; stating that “some things need to be read on time”; contrary to the conventional wisdom that in modern Russia “there is absolutely nothing to read” (“читать совершенно нечего»).

However; there is a noticeable discrepancy in the Yuzefovich – Prilepin coordinate system; which is no less important for identifying certain autopsychological dominants in the text “Name Day of the Heart”. So; Leonid Yuzefovich is convinced that “a writer should not have political views” because “political engagement requires truncation of reality” whereas for Zakhar Prilepin it is obvious that the creator “would be foolish and despicable to ignore politics and sociology in our day” (“было бы глупо и подло игнорировать политику и социологию в наши дни») otherwise; “FIG then need this writer? ...” (“она фиг тогда нужен этот писатель? ...”). We see that it is much more important for Prilepin not to convince his interlocutors and readers that he is right; but to receive comprehensive answers to his questions concerning Russia and Russian literature; their past; present and future.

RESULTS AND DISCUSSION

Zakhar Prilepin suggests the same topics for reflection “Literary peers”; representatives of the “new era” – “the next tectonic shift” (“очередного тектонического сдвига») [1; 245]. With each of the “young” authors; Prilepin talks about relatives; writers of interest to him; and is interested in the degree of everyone’s involvement in the modern literary process.

So; the opinion of Andrei Rubanov about Eduard Limonov; one of the favorite artists of the word Zakhar Prilepin; as a “whole” person; “able to keep the word”; clearly consonant with Prilepin's perception. Rubanov notes the quality of Limonov’s prose; which; of course; appeals to Prilepin: “His personal experience is put at the forefront of his experience” (“Во главу угла у него поставлен пережитый личный опыт») [2; 261]. Note that this characteristic is characteristic of both Prilepin and Ruban texts. And the opinion of Rubanoff that is not worth “To publicly discuss the work of others”; and his desire to treat the literary process “rather as an attentive consumer than as a participant” (“скорее как внимательный потребитель; нежели как участник») (2; 262); Prilepin is not ready to share.

German Sadulayev's statement that he doesn’t have time to read his contemporaries to litter them with garbage is also not close to him. Prilepin himself is of the opinion that writers should “delight in language and culture; politics and religion; and the nation” and a book written by another should be “perceived ... as another coin thrown into a common piggy bank”. At the same time; Sadulayev’s view of the war in Chechnya Prilepin is so clear and close that “all the horror created by the Russians in Chechnya” was “much more clearly understood not from what he saw or from communication with dozens of Chechens; but from the book of German Sadulayev” (“куда более ясно понят не из увиденного и не из общени с десятками чеченцев; но из книги Германа Садулаева») [2; 265]. Of course; here we can talk about a certain psychological relationship between the two authors; since they were physically on different sides of the barricades during the Chechen events; and it is impossible to call the events experienced by them biographically close. In a conversation with Sergei Shargunov; Prilepin’s interest in women's prose is clearly visible; namely; the distinctive features that exist between her and men's prose. Shargunov’s statement that “female physiology; the female nature of glamor by definition”; Prilepin will quote in an interview with Anna Kozlova; Tatyana Nабатникова; Василина Orlova; apparently; with the aim of determining as accurately as possible her own attitude towards him and this issue in general. At the same time; it is impossible to state unequivocally that Prilepin fully shares the position expressed by Shergunov.

Curious is the fact that; despite the extremely poor representation of female writers in “Name Day of the Heart”; Zakhar Prilepin notes with particular feeling that among all of his interlocutors; only two women “pronounced those clear and sensitive thoughts”; “I would like to formulate myself; first; before them”. This recognition precedes the conversation with Tatyana Nабатникова; in whose work Prilepin particularly emphasizes the “goodwill” and “restraint” of the submission. At the same time; the writer's judgments are distinguished by their rigor and peremptoriness (which; of course; reveals the very psychological relationship of which Prilepin speaks).
So; Tatyana Nabatnikova is sure that “it is senseless to lay claim to someone else’s place”; but even her; “the one and only; nobody can take”. Zakhar Prilepin; in turn; declares: “I do not envy anyone. He was not jealous of either success or strangers’ biographies. I have everything – Motherland; children; readers; friends. And if something is not enough for me; I will take it away” (“Никому не завидую. Не завидовал ни чужому успеху; ни чужим биографиям. У меня всё есть – Родина; дети; читатели; друзья. А если чего-то мне не хватит; то я заберу”) [1, 266].

Both Prilepin and Nabatnikova are ready to argue with the truths; which the majority think of as capitals. The writer; for example; does not like the adage “a thin world is better than a good quarrel”; (“худой мир лучше доброй ссоры”); since “the notorious political correctness often pushes the sore into the depths; and then it breaks through with a purulent boi” (“пресловутая политкорректность часто загоняет болелку в глубину; и она потом прорывается гнойным нарьывом”) [1, 267]; and “a good quarrel aggravates the relationship and helps eliminate latent mistakes” (“хорошая ссора обостряет отношения и помогает устранить подспудные ошибки”).

Prilepin also abhored the expression “start with yourself”: “Start with yourself – one of the most disgusting phrases for me … I will eat bread; love my wife; and if I need to punish a villain; I will start with him; not with myself” (“Начни с себя – одна из самых отвратительных для меня фраз… Я буду есть хлеб; любить жену; а если мне нужно будет наказать негодяя; я начну с него; а не с себя”) because “if I start with myself; he will run faraway” (“если я начну с себя; он далеко убежит”) [2, 268]. Zahara Prilepin; the writer Anna Kozlova; is also related to the rejection of “half tones in life and in prose”. The writer notes that the writer works “with taste and without false tact; with amazing energy; with cynicism; and sometimes with passion demonstrating amazing honesty” (“со вкусом и без ложного такта; с поразительной энергетикой; с цинизмом; а порой и со страстю демонстрируя удивительную честность”) [2, 268]. Certainly; some features of the writer’s style; indicated here by Prilepin; can also be attributed to him. For the uncompromising Anna Kozlova; it is obvious that “the only way to keep one’s mind is to treat what you are doing is not quite serious” (“единственный способ сохранить рассудок – относиться к тому; что ты делаешь; не вполне серьезно”); since “there is nothing more terrible than someone who was wrapped in a scarf with pills; drunk with fake vodka; a graduate of the Literary Institute; who has been telling for two hours present about their genius” (“нет ничего страшнее какого-

Zakhar Prilepin also believes that a writer who treats himself as “the best Russian writer of the last ten years”; risks becoming a “patient of a hospital for schizophrenics”. It is curious that; in this case; male prose; according to Kozlova; differs from female prose precisely in the fact that “a man rarely has enough spirit to treat himself skeptically as the author” (“у мужчины редко хватает духу отнестись со скепсисом к себе как к автору”) [2, 270]. It is worth noting here that in some Prilepin texts; we once already noted signs of combining different gender consciousnesses – male and female when trying to find some literary inconsistencies in the works of Zakhar Prilepin and Vera Polozkova.

The choice of these names was not accidental; and it was determined primarily by the fact that the authors at the beginning of the creative path were really interested in each other’s work. Prilepin called Polozkov “the first poetess of Russia” Polozkova; in turn; was inclined to see in Prilepin not only an interesting writer; but also the embodiment of a truly masculine view of the world: “He is cool; he is victorious” [4, 28].

Certainly; the author’s personality is reflected in different ways in the epos and lyrics: each kind of literature has its own specific features. Therefore; we will focus; first of all; on the titles; where the seal of the author’s personality manifests itself most clearly where the distinction is made “Male” and “female” literature in the modern world.

CONCLUSION

The analytical development of these authors makes it clear that the vast majority of their works are autopsychological; that they do not just recreate abstract images of a man with female traits in the first case; and women with a male feature set in the second; but combine these two oxymoronic principles. Trying to make sense of it; Polozkova will note: “I think that there is no female or male poetry. If you are talking to people as you are with your peers; it doesn’t matter if you have more – male or female”. (“Я думаю; что не существует женской или мужской поэзии. Если говоришь с людьми; как с равными себе – не важно; чего в тебе больше – мужского или женского”) [2, 272]. All this makes it possible to understand that in this case the prose writer and the poetess tend to combine in themselves a polar incompatible. In addition; Prilepin is interested in observing such personality traits in other writers.

As a result; “hierarchies in modern literature have developed with minimal participation of the
writers themselves” whereas “traditionally ... literature was perceived as a field of general work” [4, 102]. Not trying to idealize the modern literary process; Z. Prilepin nevertheless comes to an unequivocal conclusion: “There is good literature in Russia. Do not think that all of it consists of what is heard. Russian literature is much wider” [2, 242].

Z. Prilepin offers themes for reflection to his «literary peers»; representatives of the “new era” – “the next tectonic shift” [3, 106]. With each of the “young” authors; he talks about relatives; writers of interest to him; and is interested in the degree of involvement of everyone in the modern literary process.

Certainly; the author’s personality is reflected in different ways in the epos and lyrics: each kind of literature has its own specific features. All this makes it possible to understand that in this case the prose writer and the poet tend to combine in themselves a polar incompatible. In addition; such features of Z. Prilepin are interesting to observe in contemporary writers and poets.

REFERENCES
FORMING A CULTURE OF PEDAGOGICAL COMMUNICATION

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ABSTRACT
The article illustrates the main factors of communication between teacher and students interaction for rebuilding and furthering great spirituality, improving the culture of national education system. The achievement of these tasks is provided through the communication main implementer of educational reforms. The development research activities are characterized by the existence of number variety methods of communication which scientists of this period have a great investigation. The article is aimed at identifying linguistic and psycholinguistic features to the problems of interrelationship in bilingual education. The materials of the article can be useful for linguists, psychologists and teachers of a foreign language for further development of investigation.

KEY WORDS: communication, competence, orientation, solution, problem, student, culture of speech, verbal, information.

DISCUSSION
Great changes are taking place in the education system since independence. The minds and the worldview of people have changed. The state policy in the field of cadres training envisages intellectual and moral education of the person, the achievement of its full-fledged personality. Communication and communication skills of the teacher are important in the implementation of this social demand, education, creative abilities and intellectual development of each citizen. Therefore, it is worth noting that the demand and responsibility for the teaching profession has increased, and the role of teachers in the community has increased. Rebuilding and furthering our great spirituality, improving the national education system, strengthening its national basis, bringing it into line with modern requirements, developing students' ability to think independently and freely, teachers have a sense of responsibility for the tasks. The achievement of these tasks is achieved through the culture of student interaction with the teacher, the main implementer of educational reforms. The formation of the student's spiritual environment is exemplified by the high moral standards of the teachers. In this context, the personal and social behavior of the teacher is based on the culture of pedagogical communication. In teacher communication the best qualities and behaviors of the teacher are reflected in the student's ideal. If a student's views about his teacher's personality, his behavior and his pedagogical skills are incompatible with his spiritual culture, the complete organization of a holistic pedagogical process will not yield positive results. Strict authoritarian disciplines between the teacher and the student object also have a negative impact on the
culture of communication, resulting in the development of the student's inner sense and personality.

Communication culture is also important in people. Communication culture is formed by people accidentally or through school education. For example, in the first grade, a teacher teaches students to speak correctly, to answer broad and detailed questions, and to stand up when asked. As children grow older, for example, in senior school age, students gain a greater understanding of the culture of communication by reading fiction or special pedagogical literature.

But it is no secret that communication culture needs to be learned through special exercises. Psychological training, or communication training, involves two tasks, first, to study the general laws of communication, especially pedagogical communication; and second, the acquisition of a "technology" of pedagogical communication, that is, the formation of skills and competencies in professional pedagogical communication.

Psychological training has both theoretical and practical aspects. Exercises for skills acquisition and communication skills with students: skills to act consistently throughout the course, training involves developing skills for controlling muscle tension, voluntary focus distribution, and training.

The use of tape recordings, and video recordings is also important in learning how to communicate. Because such notes allow the prospective teacher to improve his speech, adjust his voice, keep his speech straight, upright, avoid unnecessary movements and facial expressions. Therefore, future teachers should use similar exercises to master the culture of speech and communication.

Successful professional communication is the communicative culture of the teacher. The child needs to feel that the teacher is speaking from the heart. Otherwise, communication is impossible. Some teachers communicate with children without regard to their age. When a teacher senses that a child is growing up, it means that he or she is forming a culture of communication. In order to achieve a communicative culture, a teacher should pay attention to:
- the culture of listening to the child with patience;
- listen carefully to the child, even if it is not fun;
- turn the subject in another interesting way when the child feels bored;
- trying to boost the child's mood before talking;
- developing a culture of communication appropriate to the market economy.

The teacher should create a holistic portrait of his or her communication with others. This helps establish relationships with the audience. Pedagogical communication is an important part of the learning process. Teacher, educator, and pedagogical communicative activities play an important role in communication in pedagogical activities. Communication skills are expressed in the following forms:
1. Communication skills;
2. Skills in organizing creative work with students;

A key component of communication skills is the diversity of communication skills. What we do know is that communicators organize easy, fast, and quick communication. Such people are always at the very center of communication. Communication in pedagogical activity occurs not only as an individual trait, but as a professional one.

Communication is multi-layered and can be divided into the following components:
1) communication skills - ability to feel satisfied with the communication process;
2) social closeness - the desire to be in the community, the desire to be with people;
3) altruistic directions (striving and helping others).

Communication skills. One of the teachers who dropped out of pedagogical activity. Social proximity is not a temporary mental state, but rather an individual's professional or pedagogical orientation. Communicative as a personality trait ensures effective communication. In our view, three components of communication need to be considered: the need for communication, the perception of good experiences during and after communication, communication skills and skills.

Communication is emotional, communicative and altruistic. Communicative perceptions include sharing ideas, excitement, sympathy, and respect for the companion in communication. Altruistic feelings are the desire to bring joy to others, the joy of others, sympathy. The teacher's communicative activities also include his or her abilities. These include: didactic (expressing the subject in a simple, understandable language), emotional and willpower, affecting the mood of the student on the basis of perceptual and pedagogical observation, expressive speech, mimic, pantomimic, communicative thinking. - establishing relationships with students, teaching staff, and demanding. Clearly, all pedagogical skills are associated with communicative abilities. For the first time, a "creative sense" is born when it comes to interacting with students. The second time there is a "feeling of creativity" when repeating the lesson. The famous psychologist L.S. Vigotsky has suggested that it is impossible to study the artistic act of art, that through consciousness we can enter into unconsciously, organize conscious processes, and call through them processes of unconsciousness.

The direction of psychological work is the creative, intellectual, emotional side of the teacher. The creative sense of the teacher is particularly strong in the literature classes. At the same time, the experience of a
teacher plays an important role. As his experience improves, the teacher does not become dissatisfied with the original materials and tries to use new material in the classroom. To do this, you need to have a sense of creativity. When a teacher has a sense of creativity, the teacher is looking for and finding the opportunity. When the textbook is broken down as much as possible, the textbook is well organized, and the teacher is taught a creative approach.

The teacher may use the following information tools to help him / her feel creative:

- I am at peace;
- I can teach with confidence;
- children listen to me;
- I am well prepared for the lesson;
- The lesson will be very interesting;
- it is fun to have kids with me;
- I feel good;
- I like to work in class.

To be effective in communicating with a teacher, he or she needs to know the systems of pedagogical influence, each part of it. The teacher should always remember what method the teacher uses. To do this, the teacher takes into account two important issues:

- Correctly organize their actions;
- Effectiveness of communicative effect.

Communication in pedagogical activity can be described as follows:

1) the overall structure of the learner-teacher communication system (the exact method of communication);
2) a system of communication that is specific to a particular stage of pedagogical activity;
3) a situational system of communication that is evident in addressing specific pedagogical and communicative issues.

Emotional self-esteem plays an important role in pedagogical activities at various stages of communication. It is reflected in the implementation of the activity after the audience's communication during the preparation process. Studies show that the emergence and implementation of communicative stimuli is a complex process. In the process of direct communication, the teacher creates a state of communicative relaxation. Naturally, communicative self-esteem depends on the general and communicative culture of the teacher, the most important is the level of professionalism of the pedagogue, and the desire to work with children.

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THE COMMUNICATION PROCESS BETWEEN THE HEALTH WORKERS AND THE PATIENTS IS BUILT TO IDENTIFY THE PATIENT'S HEALTH STATUS

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ABSTRACT
In this article is analyzed the process of performing medical speech of health care experts with patients expressing it by linguistic style that describes characterization of sufficiency appropriate form in successful treatment of language acting. The article includes the main goal of investigation progress and emphasizes to express the function of language units by subjective modality. The author proposes that subjective modality is a negative or positive emotional response to expression, a quantitative assessment of expression, and a social attitude to expression development research activities. This article illustrates the characteristic of describing the syntactic forms that with the features of the medical speech, which are characterized by morphological features, especially in broader considerations.

KEY WORDS: linguoculturology, pragmalinguistic, communication, conceptosphere, competence, medical discourse, semantic-functional, emotional, self-correction, culture of speech.

DISCUSSION
Medical discourse is subject to careful analysis and within the framework of a pragmalinguistic approach to build professional communication between the doctor and the patient, the main purpose of which is the final cure of the patient. The main goal of the analysis of communication in this pragmalinguistic direction is the direct diagnosis of personality traits of an individual by the features of his speech. Each genre introduces communication not only standardization, systematic and semiotic principles, but also acts as a flexible category of live communication. This circumstance indicates that genre differentiation in any sphere of professional communicative interaction makes it possible to "establish the existing boundaries of the" horizons of expectation "for the recipients of speech works and the construction models for speech subjects formed in the language".

The article discusses the concept of health, the concept of health and the means of expressing it, and the use of linguistic units in the literary context to represent health. The word "concept", which has now become a new term in linguistics, has been used not only in cognitive linguistics but also in many areas related to speech activity. Due to the semantic-functional nature of the concept, each researcher treats it as a field term. Therefore, what is the essence of this phenomenon, and what its peculiarities are, requires a serious approach to the subject. The fact that a person's health in medicine has an impact on public life, the health of the body and the soul in a healthy person is recognized in the science of sociology, and the fact that the former man who lived for almost a century as a
key component of the system. Thus, the concept is a multidimensional phenomenon, and for linguists working in linguoculturology, the concept is a hallmark of a particular linguistic culture, which depends on the perception and categorization of all things according to each nation, lifestyle and culture. The semantic core of units considered within the conceptosphere contains normative and cognitive signs that allow natural and healthy behavior of a healthy organism to function.

The medical discourse focuses on the analysis of the communication process between the medical practitioner and the client within the context of pragmalinguistics approach. At the same time, the main goal is to find out and market the patient's casualty. In addition, communication is a diagnostic analysis of the patient's personal characteristics. The main focus of medical care is addressee “An individual psychologist with an appropriate professional background . In the dialogue, it is not only the exchange of words between two persons, but also the purpose of the dialogue is to integrate into a particular context. The construction of speech in physician-patient communication relies heavily on scientific text. Of course, in the course of this conversation, the syntactic features of the written scientific text are retained, without sacrificing the use of syntactic units. Health care providers need to be able to communicate with the patient in a communicative culture. Expressionism and emotionality are considered as a separate area of research in pragmalinguistics. Linguists have different views on these concepts. V.N. Telia connects expressivity with subject modality. She noted that the express function of language units is important in expressing subjective modality. The author proposes that subjective modality is a negative or positive emotional response to expression, a quantitative assessment of expression, and a social attitude to expression that usually most linguists comment on expressiveness and emotionality as being close or identical to each other. In particular, I.P. Susov combines expression and emotionality into one function according to the given information and situation . Phrase is expressed in terms of the emotional reactions of the participants, rather than being related to any meaning. For this reason, emotionality reflects the inner and outer psychological state of the communicants, while expressivity is a means of enhancing communication.

Expressive words and phrases and proper use of emotional communication are considered to be communicative competences, which are among the criteria for communicative culture. Communicative competence is a way of communicating based on the personal and professional experience of the professional, which means that he or she can work effectively in colleagues and in the community. Communicative competence also includes the ability to accurately assess the patient's psychological state during the conversation with the patient, and to choose the appropriate speech style (advice, humor, compliment, use of encouraging words and phrases).

In the example given by the health worker, he used two different semantic characters and styles, such as complimentary (not perfect, heart-driven, steam-powered) and humorous. The compliment is used to improve the emotional state of the addressees, and if we do not lose weight, the jokes in the form of irritated jokes can be regarded as a way of encouraging patients to follow a diet that is essential to their treatment.

The communication process between the health worker and the patient is built to identify the patient's health status. This process is regarded as a unifying process that defines the communication and communication between the medical officer and the patient. In this process, a health worker needs to use his communication skills in addition to his or her professional knowledge.

The course of communication depends on the patient's health and physical condition. The direction of communication is determined based on the results and information obtained during the examination. Nonverbal communication methods, such as head and hands, are also used to interpret and interpret certain information. Consider the following example: The floor in the ward was rotated and replaced. The nurse measured her throat and bit her lip.

"What's wrong with you, baby?" Did you notice anything?

The wrestler shook his head. Istat Fayzullaevna again measured blood pressure as she was panicking.

- You can't get excited. Remember the good days you have seen” said Istat Fayzullaevna.

- Don't tell me now, please. Thank God, my kidneys have become healthy. I can treat the heart in Tashkent. Aunt (Istat Fayzullaevna) shook her head.

- Don't joke with the kidneys. Not yet recovered. You know, your kidneys moved. Do not think to leave until you are healed.

Health care provider’s speech “You can't get excited’ encourages people to choose the right path through their speech. “To get the result you need, you should remember a good day”.

Do not joke with Kidney next. Not yet recovered. Do you know that after the explanatory work as your kidneys have been moved, the Prohibition Speech Act, such as don't think of leaving until you are healed. Typically, prohibitive speech acts are used by health care providers to indicate that patients are not in a position to act or that they represent a threat to public health.

This process is carried out in various ways. In particular, the explanation of the consequences of the action is taken in such a way as to warn that it is not
appropriate in certain situations. Of course, the implementation of the ban may differ in the way that the professional of the health care professional can use the language. This process takes into account the age, ethnic, cultural, social and gender aspects of the patient.

In fact, the level of familiarity of the participants in the speech process depends on the communication delay and the choice of communication style. (communication takes place, taking into account lifestyle, area of activity, and mental state. V.V. Zhura, considering the oral medical discourse in his scientific research, defines it as a genre, which is a stable and pragmatically determined verbalizable form of cognitive-communicative activity that accompanies a typified event within the framework of a professional medical expert.

The key indicators of a future health care worker’s communication culture are: emotional, empathy (talker's attitude and communication status, helping the interviewer in expressing his / her feelings, expressing his / her feelings, attentively observing other's feelings demonstration); In the cognitive field - reflection (preparation and preparation for listening to the audience, checking the correctness of the hearings, identifying the rational component of the hearing, self-correction, stimulation, self-evaluation, etc.); actions (planning communication in the field, initiating the conversation, establishing a common connection, personalizing relationships, resolving conflicts, proposing joint actions, discussing, negotiating, clarifying and disseminating information, expressing the ethical norms of interpersonal relationships).

The impact of a health worker on the patient has a cognitive and communicative purpose. On the basis of this it is necessary to provide treatment to the patient, to change the patient's attitude towards the disease, to improve the psychological state of the patient. In many cases, the communicative purpose used by a physician is to advertise and promote one's self-esteem.

Not without reason, in the recent past, nurses were called “sisters of mercy”; this reflected not only the professional, but also the moral side of their work. Indifferent, unbalanced people who are not capable of sympathy for a suffering person should not be allowed to work in medical institutions. When communicating with patients, performing manipulations, often unpleasant and painful, the nurse should distract the patient from heavy thoughts, inspire him with vivacity and faith in recovery.

Moreover, she must be a psychologist, i.e. take into account the individual characteristics of the patient and his condition at the moment: one patient must be persuaded to tolerate. (“It will be a little unpleasant, but then you will feel relief”), to distract the other with an outside conversation, etc.

Often patients ask nurses about their diagnosis and prognosis. In no case should the patient be informed of the presence of an incurable disease, especially a malignant tumor. As for the forecast, one should always express firm confidence in a favorable outcome. At the same time, one should not assure a seriously ill patient that the disease is "trifling" and he will "be discharged soon", as often patients are well aware of the nature of their disease and lose their confidence in the staff with overly optimistic answers. It is better to answer something like this: “Yes, your illness is not easy and it will take a long time to treat, but, in the end, everything will be fine!” However, all the information that the nurse gives patients should be agreed with the doctor. Often, patients enter into a conversation with the nursing staff, receiving from him unnecessary information. The nurse should stop such conversations and at the same time constantly educate the nurse, explaining to them the basics of medical deontology, i.e. relationship with patients.

In the presence of the patient, one should not use obscure and frightening terms: “arrhythmia”, “collapse”, “hematoma”, as well as such characteristics as “bloody”, “purulent”, “fetid”, etc. It must be remembered that sometimes patients who are in a state of narcotic sleep and even a superficial coma can hear and perceive conversations in the ward. The patient must be fully protected from mental trauma, which can worsen his condition, and in some cases lead to refusal of treatment or even attempted suicide. Sometimes patients become impatient, negative towards treatment, suspicious. They may have impaired consciousness, hallucinations, delirium may develop. In dealing with such patients, patience and tact are especially necessary. It is unacceptable to engage in bickering with them, but it is necessary to explain the need for therapeutic measures, try to perform them in the most gentle way.

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PRAGMATIC ADEQUACY OF TRANSLATION OR PRAGMATIC COMPATIBILITY BETWEEN ORIGINALITY AND TRANSLATION

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ABSTRACT
The main idea of this article is to describe pragmatic adequacy of translation. The article issued to solve the most problems which readers come across in their literary translation. The author tried to explain that pragmatic adequacy of translation is clearer than direct translation.

KEY WORDS: pragmatic adequacy, sociolinguistic factors, translation, adequate, linguistic features.

DISCUSSION
There is a perfect system for studying each area of study. The same translation has a number of problems, and the problems we will be addressing are still in-depth study and are still being studied. There are a lot of pragmatic problems in translation, including genre features of originality and the reader’s background knowledge of the communicative purpose of pragmatic neutral realism generalization of dialects as well as a number of problems.

One of the main problems of translation is pragmatic adequacy. Adequate translation is a perfect translation. The authors of the concept of adequate translation are A.V. Fedorov and Ya. I. Resker encourages the translation should not be interpreted as an accurate story. Both translation and story-telling are in accordance with the rules and regulations of the language in which they are translated, if implemented at a high level.

According to A.V. Fedorov and Ya. I. Resker’s opinion, a perfect translation is a suitable and an equivalent translation which fully reflects the original.

As an example, consider the following proverb: A Press Iron in the Uzbek language.

Achieving pragmatic adequacy in translation means making a translation that is fully compatible with the original. But pragmatic adequacy is not always achieved. Sociolinguistic factors such as the use of substandard forms, such as speech-specific and altered to the social-dialect, are used by speakers to promote pragmatic adequacy.

It has been argued that the pragmatic aspect of language communication that has attracted the attention of researchers in recent years is closely related to the high level of additional knowledge of communication participants. In many cases the differences between the original and the non-humanistic factors of the languages require that the interpreter be well informed by many other disciplines, in addition to deep linguistic knowledge.

The pragmatic relationship between language labels and the people who use them is that these symbols should be influenced to some extent by the fact that their meanings are clear and understandable to those individuals. Only this way of information retains the communicative effect of originality in translation.

Any language symbol usually has three types. They are semantic syntactic and pragmatic:

Semantical correspondence is the relation of the sign of the language with the subject it represents; Syntactic interconnection links the elf with other symbols associated with this system; Pragmatic relevance is the relationship that determines the communication between the sign and the persons using it in the communication.

Thus, the sign of the language is distinguished by its semantic (denotative) syntactic and pragmatic meanings.

In fact, the study of pragmatic relevance depends on the choice of the translator in the translation process. To do this, he must be aware of all the background knowledge available in the original language. Successful translation is due to the fact that the original language of the translator has a profound knowledge of the specifics of the culture of the literary language of its culture.
Different social-language factors, which speak in different dialects of the language, also play an important role in ensuring the pragmatic adequacy of the translation. In particular, the use of dialect-specific words for stylistic purposes in deviating from language norms in the original text presents some difficulties with the use of contamination.

Words specific to the dialects in the original language are not translated automatically. Their use in the text is dual. At the same time, this work may be written entirely in a foreign language. In this case, if the dialect language is translated, it will act as a means of inter-language communication and the translation will be the same as any other national language. Naturally, the translator should be aware of the specifics of the dialect language. Dialect-specific elements, on the other hand, are also used by the author to show the specific features of the language of individual characters as a typical representative of the people who speak in a particular area. In this case, the translation of the pragmatic features of the original language dialects into translation will have no effect. If a person in the original language is speaking in a London dialect called "koini" (soskney dialect), adding words that are not in the literary language in English sentences or lowering that tone.

And it would be utterly absurd if the translator used a language that did not exist in the language to maintain this feature, instead of simply saying, "he has good hearing ability." At this point, the translator may not use certain dialects in the Uzbek language in translation. They are words that are typical of Uzbek dialects. For example, the translation of Mark Twain, a Negro resident in Missouri into Uzbek, with the language of the population living in Tashkent or Khorezm, is not theoretically practicable. But in this case the pragmatic nature of translation is lost, and the level of adequacy of the original with the translation falls one step further. This, in turn, poses a problem of pragmatic adequacy in translation.

The language of many indigenous dialects is related to the social characteristics of the speakers of the language. In fact, the use of such dialects is an indication that the character is representative of a particular social group. Often the linguistic features of a particular social dialect may be of a general nature, depending on the regional character. This is because it is possible to break up societies that form a particular social group engaged in the same profession.

For this reason, the translation of additional meanings in the social dialect expressions is also made easier. If in fact, even a foreign language, a contaminated speech does not have a standard form of contaminated language, the translator creates his or her own version of the communicative situation, taking into account the peculiarities of the character. Another pragmatic problem of translation is contaminated speech translation. Most languages have a standard form of deception, and the way they speak is different in different languages.

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NIGERIA AND THE SUSTAINABLE DEVELOPMENT GOALS AGENDA: IS ENDING POVERTY IN ALL ITS FORMS POSSIBLE BY 2030?

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ABSTRACT
Poverty is one of the persistent problems confronting many nations of the world today. In Africa poverty is endemic and the situation of the people is disturbing. For instance, in Nigeria, poverty reduction has become a daunting task. The poverty rate in the country, instead of reducing is increasing by the day. Nigeria failed to meet the Millennium Development Goals (MDGs) target of reducing by half extreme poverty by 2015. At the formulation and adoption of the Sustainable Development Goals (SDGs) by world leaders in 2015, Nigeria also pledged its commitment to end poverty in all its forms by 2030. However, with the current poverty situation and the challenges to the realisation of this goal (among other Sustainable Development Goals), this study addresses this question, is ending poverty in all its forms possible in Nigeria? This study makes use of documentary research (that is the use of texts and documents as source materials) and also in-depth interviews with purposively selected development/policy experts and academics. Findings reveal that poverty reduction may be possible if adequate and concrete efforts are made by the government and other stakeholders working on poverty eradication. For example, to achieve the target of reducing extreme poverty by half by 2030, challenges such as corruption, infrastructural deficits, conflict, and humanitarian crises must be tackled. In Nigeria, poverty is a complex and multidimensional phenomenon ranging from relative to absolute poverty, lack of income, denial of basic services and total deprivation of needs and fundamental human rights. Thus, ending poverty in all its forms in Nigeria by 2030 is just an illusion and a dream distanced from reality.

INTRODUCTION
Poverty is the oldest and the most resistant virus (cited in Addae-Korankye, 2014) in the world. It is no surprise that governments across the world have for decades realized that poverty is a major obstacle to development. In the year 2000, world leaders at the United Nations Millennium Summit came up with the Millennium Declaration called the Millennium Development Goals (MDGs), with poverty eradication as the number one goal, among the 8 goals. While the world governments pledged their commitments to achieve the MDGs at the end of 2015, poverty remained endemic in the world as many countries continue to struggle with poverty reduction. In 2015, when world leaders gathered at the United Nations headquarters in New York in September 2015 to launch the 17 Sustainable Development Goals (SDGs) also known as Agenda 2030, poverty reduction emerged as a central focus (Asadullah and Savoia 2018). The first Sustainable Development Goals (SDGs) captures the urgency of this issue better, which is to end poverty in all its forms everywhere by 2030.

However, in spite of the world’s commitments to poverty reduction or ending poverty, progress to this end remains disappointing in many countries. According to Smith (2019), over 700 million people are still living on less than $1.90 a day, and more than half of them are in Sub-Saharan Africa. In Africa today, poverty is a persistent problem. In fact, it is something many people are born into with little opportunity to escape. Africa is the continent with the largest number of people living in extreme poverty (Max and Esteban, 2018). In a country like Nigeria, the poverty situation is
increasingly worrisome. When in 2012 the National Bureau of Statistics reported that poverty was on the increase to the extent that 1980 to 2010 witnessed a steep rise from 27.2% to 69%, keen observers of the country’s socio-economic statistics had expected that new statistics would reveal significant improvement. Regrettably, in June 2018 the Brookings Institution pointed that Nigeria had overtaken India as the poverty capital of the world, with 86.9 million extremely poor people. According to the World Poverty Clock, created by Vienna-based World Data Lab, 91.16 million Nigerians are currently living below one US Dollar a day (Okogba, 2019).

Although Nigeria is Africa’s largest economy, more than half of its population still grapples with extreme poverty, while a small group of elites enjoys growing wealth (Mayah et al, 2017). The paradox of growth in Nigeria is that as the country gets richer, only a few benefits and the majority continue to suffer from poverty and deprivation (Mayah et al, 2017). It is ironic that Nigeria is the sixth-largest exporter of oil and at the same time hosts the third-largest number of poor people. Nigeria fares very poorly in all development indices and is among the 20 countries in the world with the largest gap between the rich and the poor (Otive, 2006). Poverty poses great challenges to the people and to the development of the country in general. Just like other countries of the world, Nigeria keyed into the Millennium Development Goals in ear 2000. The Millennium Development Goals have eight goals and the foremost goal of the Millennium Declaration was to eradicate extreme hunger and poverty by 2015. To deal with the problem of poverty, the Nigerian government embarked on different initiatives and also established different agencies/offices mandated to work towards the achievements of the MDG 1. For example, the National Economic Empowerment and Development Strategy (NEEDS) was mandated to ensure the realisation of the MDGs, especially poverty eradication. There was also the office of the Senior Special Assistant to the President on MDGs. Regardless of the programmes put in place to achieve MDGs, Nigeria performed below the expectation of the target.

With a new set of development goals (SDGs) in existence for roughly five years now, it becomes important to assess the progress of the country towards the attainment of the Sustainable Development Goals, particularly Goal 1 (end poverty in all its forms by 2030). The SDGs are meant to complete the unfinished business of the MDGs and its 15years lifespan (2015-2030) is for countries to put extra efforts in working towards a sustainable world. Thus, the question is, to what extent is Nigeria committed to the achievement of these goals, especially poverty eradication and is ending poverty in all its forms possible in Nigeria by 2030? This study will address this question. It will also examine poverty eradication efforts in Nigeria and the challenges to the country’s actualisation of the goal of ending poverty. This study is structured as follows.

Section I captures the introductory statement. Section II is a brief discussion of the concept of Sustainable development and an overview of Sustainable Development Goals. The concept of poverty is briefly explained in Section III. Section IV examines the efforts the country has made or is making towards ending poverty. Section V identifies and explains the challenges standing in the way of Nigeria’s poverty reduction/eradication efforts. Section VI addresses the study question, is ending poverty in all its forms possible in Nigeria? Section VII is the conclusion and recommendations.

The Concept of Sustainable Development/Overview of the SDGs.

In a simple dictionary definition, the word sustainable (adjective) refers to something that can be continued or capable of being sustained (see yourdictionary.com). Sustainable also refers to the proper management of the environment/resources. It is characterized by a practice that sustains a given condition, such as economic growth, or a human population without destroying or depleting natural resources and polluting the environment, for example, sustainable agriculture. When something is said to be sustainable it means that it is able to be produced or sustained for an indefinite period without damaging the environment, or without depleting resources. Sustainability (noun) also has to do with the long-term viability of a community, set of social institutions, or societal practices (Meadowcroft and Petruzello, 2019). Sustainability is at the core of concepts such as sustainable yield, sustainable society, and sustainable development. In the contemporary academic debate, sustainability often acts as a synonym for sustainable development.

After the United Nations World Commission Conference on Environment and Development in 1987, the concept of ‘sustainable development’ spread throughout the United Nations system (Osondu-Oti, 2019). Following the report of the World Commission on Environment and Development (WCED) report also known as the Brundtland Commission Report, the idea of sustainability rose to prominence with the modern environmental movement, which rebuked the
unsustainable character of contemporary societies where patterns of resource use, growth, and consumption threatened the integrity of ecosystems and the well-being of future generations (Meadowcroft and Petruzello, 2019). The Commission defined sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Osondu-Oti, 2019). In the WCED analysis of the concept of sustainable development, the term development clearly points to the idea of change; of both directional and progressive change. It is a process of directional change by which a system improves through time in a sustainable way (cited in Osondu-Oti, 2019).

Beyond the environmental preservation emphasis on the definition of sustainable development, the concept of sustainable development has assumed an important and new dimension within the United Nations in recent times. The world community has been focusing on countries to adopt strategies and policies that are directed towards overall sustainability or sustainable development. For example, one of the main outcomes of the UN Conference on Sustainable Development (Rio+20) in 2012 was the international agreement to negotiate a new set of global goals to guide countries on the path of sustainable development. In September 2015, Sustainable Development Goals (SDGs) were adopted by the United Nations with 169 targets aimed at shifting the world onto a sustainable and resilient development pathway while ensuring that no important area is left behind. The Sustainable Development Goals (SDGs) are also known as the Global Goals, with a universal call to action and also designed to bring the world to several life-changing ‘zeros’, including zero poverty. The SDGs are 17 in number and these include No Poverty (Goal 1), Zero Hunger (Goal 2); Good-Health and Well-Being (Goal 3); Quality Education (Goal 4); Gender Equality (Goal 5); Clean Water and Sanitation (Goal 6); Affordable and Clean Energy (Goal 7); Decent Work and Economic Growth (Goal 8); Industry, Innovation and Infrastructure (Goal 9); Reduced Inequalities (Goal 10); Sustainable Cities and Communities (Goal 11); Responsible Consumption and Production (Goal 12); Climate Action (Goal 13); Life below Water (Goal 14); Life on Land (Goal 15); Peace, Justice, and Strong Institutions (Goal 16) and Partnerships for the Goals (Goal 17).

The SDGs were put forward for countries to pursue within a period of 15 years (2015-2030) for a healthier and sustainable world. To ensure sustainability, three aspects of sustainable development are often considered. These are economic, social, and environmental sustainability. An economically sustainable system, for example, must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances, which damage agricultural or industrial production (Osondu-Oti, 2019). A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation. Also, an environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environment sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes (Osondu-Oti, 2019).

The 17 SDGs are integrated in such a way that they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. For the SDG 1, the UN has 7 Targets and 14 Indicators. Targets specify the goals and the indicators represent the metrics by which the world aims to track whether these targets are achieved. For example, some of the targets for SDG 1 are to eradicate extreme poverty for all people everywhere (poverty is currently measured as people living on less than $1.90 a day); to reduce poverty by at least 50% for all men, women, and children; to implement nationally appropriate social protection systems and measures for all; to ensure equal rights to ownership, basic services, technology, and economic resources; to build resilience to environmental, economic and social disasters, among others. All these targets are to be reached by the year 2030. Achieving sustainable development goals requires that countries move towards ensuring both economic, social and environmental sustainability now in order to secure the future. The SDGs are only blueprints guiding countries, which are also used to appraise the development performance of countries and progress towards the sustainable development agenda.

The Concept of Poverty

The term poverty is a poly-semantic phrase. There are various interpretations of what poverty is and what it is not. In other words, poverty has been conceptualised in various ways. The most analysis follows the conventional view of poverty as something that occurs as a result of insufficient income for securing basic goods and services. However, poverty has been defined in complex and interconnecting ways,
moving beyond measures of income or finance. According to the United Nations Human Development Report (1998) poverty is defined as a complex phenomenon that generally refers to the inadequacy of resources and deprivation of choices that would enable people to enjoy decent living conditions (cited in Addae-Korankye, 2014). A state of poverty is seen as a state of being deprived of those goods, services and pleasures which others around us take for granted (cited in Addae-Korankye, 2014). Poverty is equal to deprivation, lack, and denial. It is a multidimensional phenomenon. Based on its multi-dimensional nature, numerous attempts have been made in defining poverty, each definition capturing the author’s perception of the concept. For instance, Narayan and Petesch (2002) posited that poverty can only be seen through the eyes of the poor.

Poverty has been categorised as either relative or absolute. Relative poverty according to Aliyu (2003) is a situation where an individual or group of people can be said to have access to his/her basic needs but is comparatively poor among persons or the generality of the community. This means that what is considered as the lowest level of poverty in one region or society may be considered as the highest level of well-being in another region or society. Poverty, whether defined in absolute or relative terms, focuses only on those whose standard of living falls below an appropriate threshold level (such as a poverty line) (cited in Oluwashakin and Osondu-Oti, 2018). Poverty is currently measured as people living on less than $1.90 a day.

Absolute poverty is concerned with when people’s income is so low that they cannot obtain the minimum needed to survive (Oluwashakin and Osondu-Oti, 2018). In other words, people experience absolute poverty when their income is insufficient to obtain the basic needs to survive. Relative poverty is when people’s income is well below average, to the extent that they are poor, compared with others in their society and they cannot afford to have the general standard of living that most other people in their society enjoy (Oluwashakin and Osondu-Oti, 2018). For example, increased inequality in income will usually imply higher levels of both absolute and relative deprivation. Relative poverty is more closely related to inequality in that what it means to be poor reflects prevailing living conditions in the whole population in comparison to others.

Ikejiaku (2009) distinguished relative poverty and absolute poverty using what he called “poverty qua poverty.” Poverty qua poverty (PQP) is the term coined to describe the practical absolute poverty of Africa, particularly Sub-Saharan Africa where the majority finds life very excruciating because it is difficult to meet or satisfy their basic needs. Those in poverty qua poverty are the people who experience such persistent poverty that it is almost impossible to break free of it using their own resources (Ikejiaku, 2009). While relative poverty may be used to characterise all countries, whether developed or developing, absolute poverty (poverty qua poverty) is a major feature of developing countries (Ikejiaku, 2009). Poverty has also been linked to vulnerability (Philip and Rayhan, 2004). Vulnerability refers to exposure to contingencies and stress, and difficulty in coping with them (Philip and Rayhan, 2004). No doubt, poor people strive to get basic needs and as a result, become either vulnerable or face human security threats. Poverty was also understood as a human rights issue (Women Budget Group, 2008). Thus, poverty is a complex phenomenon that includes lack of income, deprivation, lack of access to basic services, increased vulnerability, et cetera and it could also be relative or absolute depending on the individual, communities/regions in question.

Ending poverty in all its forms: Nigeria’s Efforts and Progress

Following their adoption in 2015, the Sustainable Development Goals (SDGs) became the global goals that require practical efforts and commitments of countries to its realisation by 2030. To show its commitment towards achieving these goals, there are several general and goal-specific programmes Nigeria has embarked upon. This is essential because successful implementation of the SDGs, which replaced the Millennium Development Goals (2000-2015), would mean successful attainment of citizens’ aspirations for prosperity, peace, and wellbeing, as well as the preservation of the Earth’s biodiversity and equitable distribution of natural resources (Odogwu, 2018). As part of the general commitment to the SDGs actualisation, the Federal government from 2016 to date has taken several steps. It established the office of the Senior Special Assistant to the President on SDGs (OSSAP-SDGs) which is a carry-over from the former MDGs under the presidency (Odogwu, 2018) to oversee the implementation of poverty reduction programmes. To enhance the legislative and oversight roles of lawmakers on the SDGs implementation process, two select committees on SDGs have been established in the National Assembly. There is a House Committee on SDGs at the lower chamber and counterpart Senate Committee in the upper chamber to provide oversight function and ensure appropriate appropriation of funds.
for SDGs. There is also an Inter-Ministerial Committee on the SDGs established to guide the coordinated engagement with Ministries, Departments and Agencies. Also, a Private Sector Advisory Group on SDGs and the Civil Society Strategy Group on SDGs (Odogwu, 2018) were formed. A Donors Forum on the SDGs was also inaugurated. To assist in the SDGs advocacy and campaign programme, the OSSAP-SDGs entered into a partnership with the National Youth Service Corps (NYSC) to train graduating youths to become SDGs champions in their local communities and areas of national service they are deployed upon graduation.

For the goal-specific programmes and in line with poverty reduction, the Federal Government has put in place various strategies to help in the fight against poverty in the country. For example, the Government in 2016 established the National Social Investments Programmes (NSIP) to tackle poverty and hunger across the country. The expectation was that the poorest and most vulnerable Nigerians will get access to social safety nets by 2021 through a US$500 million International Development Assistance credit approved in June 2016 by the World Bank Group’s Board of Executive Directors (Ibraheem, 2018). The Nigerian government’s contribution of $1.3 billion of its own budget to the program laid the foundation for the establishment of the country’s first national social safety nets system. The suite of the programme under the NSIP focuses on ensuring a more equitable distribution of resources to vulnerable populations, including children, youth and women. The NSIP programmes include the N-Power program, the Government Enterprise and Empowerment Programme (GEEP), the Home Grown School Feeding programme and the Conditional Cash Transfer programme. For instance, the Conditional Cash Transfer (CCT) programme, directly supports those within the lowest poverty bracket by improving nutrition, increasing household consumption and supporting the development of human capital through cash benefits to various categories of the poor and vulnerable. The Cash Transfer Office in Abuja has established a National Social Register for the poor and vulnerable households. The CCT also is known as Household Uplifting Program targets the poorest homes and those at the bottom of the poor. It is different from the other programs such as the N-Power and the GEEP empowerment programs, in which eligible Nigerians will have to apply for them to be considered for funding any project.

As stated by the Nigerian government, the Cash Transfer programme is strictly based on community approval, and not on the government coordinating office approval. Thus, it is left for the communities in the States that have keyed into the program to approve the poor persons who need assistance. Afterward, the National Cash Transfer Office (NCTO), which was mandated by the Nigerian government to coordinate the cash transfer programme engages the poor persons by transferring the government-approved cash with other capacity-building programmes. This includes a monthly conditional cash transfer of five thousand naira (N5, 000) to households as part of a national social safety net programme. While the government has presented its various initiatives such as the social investments programme as the largest in the history of the country and has maintained that they are yielding results, the reality is different. The efforts of the country have not resulted in significant progress on poverty reduction.

Challenges to Achievement of the Sustainable Development Goal 1 in Nigeria

Eradicating poverty in all its forms remains one of the greatest challenges facing humanity. While the number of people living in extreme poverty dropped by more than half between 1990 and 2015, too many are still struggling for the most basic human needs (United Nations Development Programme, 2019). About 736 million people still live in extreme poverty; 1.3 billion people live in multidimensional poverty; half of the people living in poverty are under 18 and 80 percent of the people living on less than $1.90 a day are in South Asia and Sub-Saharan Africa (United Nations Development Programme, 2019). Although rapid growth in countries such as China and India has lifted millions out of poverty, progress has been uneven. In Africa, eradicating poverty has been a daunting task. Issues such as climate change, conflict, terrorism, bad governance, corruption, food insecurity, and environmental poverty are challenging for Africa countries such as Nigeria.

Despite the poverty eradication programmes that were introduced by various Nigerian governments, the country failed to meet almost all the MDGs including poverty reduction. Since 2016 more initiatives have been put in place in a bid to end poverty in all its forms by 2030 but in the midst of the country’s efforts, Nigeria recently emerged as the poverty capital of the world. There are various obstacles/roadblocks to achieving the Sustainable Development Goal 1 in Nigeria that must be looked into. These include among others, corruption and lack of accountability, poorly
articulated policies, lack of proper infrastructure, policy instability and increasing conflict in the country. These challenges are briefly discussed below:

**Corruption and Lack of Accountability**

Corruption is a major challenge frustrating the efforts towards poverty eradication. Although Nigeria has the largest economy in Africa and has enjoyed oil wealth as well as experienced economic growth in years past but the period of economic growth due to oil exports has not sufficiently trickled down to the poor (Freedom House, 2012). It is widely accepted that the misappropriation of public funds and assets by corrupt elites have been the major cause of Nigeria’s poverty (Global Witness, 2012). The struggle to lift more Nigerians out of extreme poverty is an indictment on successive Nigerian governments which have mismanaged the country’s vast oil riches through corruption. Poverty and inequality in Nigeria are not due to lack of resources but due to ill-use, misallocation and misappropriation of such resources. At the root, there is a culture of corruption and rent-seeking combined with a political elite out of touch with the daily struggles of average Nigerians (Mayah et al., 2017). Funds meant for development have at many times been embezzled by corrupt officials.

There is also a lack of accountability. Most times, the individuals that are given the responsibility of overseeing certain poverty eradication programs do not give feedback on their actions. They are not accountable and as a result of this, it has become difficult for the Nigerian government to track the progress or failures of poverty eradication programmes (Personal Interview, 5 December 2019). At other times, when reports are given by those responsible for any project, their reports may be usually falsified. Corruption and lack of accountability in Nigeria are areas of serious concern. The duo has succeeded in neutralizing the efforts of stakeholders working on eradication of poverty and hunger in Nigeria (Personal Interview, 11 December 2019). Most of the funds committed to poverty eradication programmes hardly get to the target audience and the campaign for poverty eradication has also been without the needed political will (Akinbi, 2003). According to Oshewolo (2011), public officers who are supposed to be responsible public servants have become emergency multi-millionaires by diverting public funds to feather their nest. Although the present Muhammad Buhari government has declared a war on corruption and is making strides shown in the jailing of corrupt officials, his efforts seem like a drop of water in the ocean.

Nigeria recently in January 2020 is named West Africa’s most corrupt country.

**Poorly Articulated Policies**

A problem that impedes the actualization of poverty-related programs in Nigeria is the inability of Nigerian policy-makers to bring forth properly articulated policies. The policymakers in Nigeria always want to formulate policies and programs with some inbuilt flexibilities to allow them loopholes to make personal gains. This is the reason why most poverty eradication programs do not get to the people at the grassroots who experience poverty firsthand (Chukwuemeka, 2008).

**Lack of Proper Infrastructure**

Kanayo (2014) stated that the state of infrastructural facilities in the country is embarrassing. Infrastructures, which are known to enhance industrialization, provide employment especially in the small and medium scale enterprises (SMEs) sector and eradicate poverty, are grossly inadequate in the country. This stands as one of the prominent challenges to the achievement of the eradication of poverty and hunger. Inadequate infrastructure such as lack of good roads also hinders stakeholders’ from getting to the grassroots where poverty is at the extreme. Most roads in Nigeria are in need of rehabilitation. Roads across the nation, whether Trunk A roads which are federal, or Trunk B which are state roads or Trunk C roads which are local government roads, are in a decadent state, and there is hardly any part of the country that can boast of all decent motorable roads. The infrastructural deficit, as well as technology gaps, which hinder service provision and application of science, technology, and innovation in many spheres of life, has a role to play in actualising the SDGs in Nigeria.

**Policy Instability and Increasing Conflict**

Frequent policy changes have interrupted the progress of initiated programmes (Taiwo and Agwu, 2016). Change in government often leads to halting of already existing programmes by the new government. Every government wants to impose its own programmes rather than working on existing programmes. Moreover, the personal interests of the leaders often result in bringing new policies that will benefit the leadership too. New policies mean the appointment of new officials that would work according to the dictates of the leader. In fact, today, the argument across the country is that the new government’s appointment into key positions went to the northerners.
and might affect how other regions will benefit from the
dividends of democracy. While there is little evidence
to support such an argument in line with who benefits
during changed policies/offices, policy instability is
known to impact on the efficiency of any programme.

Also, the country has been bedeviled with
conflicts such as militancy in Niger Delta, Boko Haram
insurgency and farmer-herder conflict in the last two
decades, thereby creating more internally displaced
persons and communities that have lost their means of
livelihood. This invariably leads to an increase in
the number of poor and create high unemployment.
Conflict has also created insecurity in many
regionscommunities making it difficult for the
government to address the needs of the poor adequately.

Reliance on Oil and Gas sector and Limited
Value addition in the Agricultural sector

Nigeria’s earning from oil represents more than
70 percent of the country’s gross domestic product
(GDP). Fluctuation in oil prices in the international
market often impacts on funds' availability since oil is
the major source of revenue for the government. The
2016 economic recession in the country due to
fluctuating oil prices in the international market
plunged many citizens into extreme poverty with high
inflation. There is also limited value addition in the
agricultural sector to grow the economy, create jobs,
ensure food security and address poverty. Agricultural
productivity has also dwindled in some regions such as
the Niger Delta where oil has polluted the rivers and
lands. Also, dwindling in agricultural productivity in
many areas is attributed to climate change;
desertification; natural and manmade disasters; the
incessant conflict between farmers and herdsman,
unresponsive land tenure and general low utilization of
mechanized farming. These are areas critical to poverty
reduction.

Is Ending Poverty in all its Forms in
Nigeria Possible by 2030?

The current statistics on the poverty rate in
Nigeria is alarming. According to the Brookings
Institution report that came out at the end of May 2018,
Nigeria has over 87 million poor people, compared with
India’s 73 million. The report also specified that six
Nigerians fall into poverty every minute, which meant
that in 2017 alone, 3,153,600 Nigerians were added to
an already overcrowded poor population (Vanguard,
2018). The United Nations Development Programmes
(2019) pointed out that 62 percent of Nigerians live
below $2 a day. To address the question is ending
poverty possible in Nigeria by 2030, this study will
assess the progress of Nigeria towards eradicating
poverty using the first five targets of the Sustainable
Development Goal 1.

The first target of the SDG 1 is “to eradicate
extreme poverty for all peoples everywhere by 2030.”
Achieving this target does not look feasible. The
indicator for this target looks at the proportion of
the population below the international poverty line, by sex,
age, employment status and geographical location
(urban/rural). The international poverty line today is
$1.90 per day and this was updated from the previous
poverty line of $1.25 to $1.90 in 2015. For Nigeria,
more than half of the population still struggles to
survive on less than $1.90 per day. Issues of conflict
resulting in internal displacement, hunger, and security
threats have left many people or communities
vulnerable to poverty. In rural communities, poverty is
endemic. There is also increasing inequality. According
to Mayah et al (2017), although the gap between the
rich and the poor may be a worldwide problem, the
scale of inequality is extreme in Nigeria. The disparity
is such that the amount of money that the richest
Nigerian man can earn annually from his wealth is
sufficient to lift 2 million people out of poverty for one
year (Mayah et al, 2017). The Gender in Nigeria Report
(2012) categorised Nigeria among the 30 most unequal
countries in the world (cited in Mayah et al, 2017).

The second target of the SDG 1 is “to reduce at
least by half the proportion of men, women, and
children of all ages living in poverty in all its
dimensions according to national definitions by 2030”.
In Nigeria, instead of the number of the poor
decreasing, the country continues to swim in poverty as
shown in the current statistics. Unemployment and
underemployment are high and these include those that
are not employed at all and those that are employed but
are receiving salaries that cannot take care of their basic
needs, an example is where a University graduate is
having a monthly salary of 20 thousand naira a month
(Personal Interview with David Onyenekwe, a
researcher with a Civil Society Organisation in Abuja, 5
November 2019). Good employment will to a great
extent guarantee the protection of other human rights
such as health and education, and also save the society
from social unrest, which exacerbates poverty.

The third target is “to implement nationally
appropriate social protection systems and measures for
all, including floors, and by 2030 achieve substantial
coverage of the poor and the vulnerable.” While Nigeria
has social safety net programmes, its impacts are not yet
to be significantly felt. The target indicator involves
implementing social protection system shown through the percentage of the population covered by social insurance programs which provide old-age pensions, social security, and health insurance benefits. The National Social Investment Programmes of the Federal Government is a social protection system. Also, there is the National Pension Scheme and National Health Insurance Scheme but these programmes have been criticised for their inability to attend to the basic needs of the people. For example, the areas of the health coverage of the NHIS are few as the poor struggles to pay for higher medical expenses, for example, those that might involve surgery.

The third target of SDG 1 is “to ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular, least developed countries, to implement programmes and policies to end poverty in all its dimensions by 2030.” In Nigeria, development agencies such as the United Nations Development Programme, an arm of the United Nations, among other governmental, non-governmental and civil society groups have been contributing through funds and empowerment programmes to assist the poor, vulnerable and displaced in the society.

The fourth target of the SDG 1 is “to ensure that all men and women, in particular, the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance by 2030.” This target looks at the world population with access to basic services, including improved drinking water, sanitation, electricity, and clean cooking fuels. The two metrics (indicators) by which the world aims to track whether this target is achieved is by identifying the proportion of population living in households with access to basic services and the proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure. Concerning this target, basic services such as good sanitation and drinking water are still lacking in many rural areas, and some cities too. With regard to inheritance, men still have significant access to land and inheritance in many communities. In other words, inheritance rights are reserved mainly for the male child and often denied the female child in various communities in the country.

The fifth target of the SDG 1 is “to build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters by 2030.” To track the progress on this fifth target, there are four indicators. The first indicator looks at the number of deaths, missing persons and directly affected persons attributed to disasters in the country. Second, has to do with the direct economic loss attributed to disasters in relation to the global gross domestic product (GDP) in a country. Third has to do with the number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030. Fourth, is the proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies. For the first and second indicators, although natural disasters do not occur regularly, the country has known no peace since its return to democracy. Conflicts have been devastating with a high number of deaths and internally displaced people. For example, the United Nations’ refugee agency estimates that conflict in Nigeria has displaced 2.4 million people and put more than seven million at risk of starvation (cited in Campbell and Harwood, 2018). For the third and fourth indicators, the country’s National Emergency Management Agency (NEMA) has been responding to conflict as well as disasters in various states of the Federation although lack of good infrastructure such as roads sometimes delay/deny immediate response to disasters (Personal Interview, 5 December 2019). The road sector accounts for about 90 percent of all freight and passenger movements in the country but unfortunately, roads are in deplorable condition.

Overall, the United Nations Sustainable Development Goal (SDG) to end poverty in all forms by 2030 is not possible. Poverty in Nigeria is multidimensional and there is no single target among the five targets that are receiving adequate attention. According to Yomi (2018), to end poverty globally by 2030, 90 people need to leave poverty every minute; in Africa, 57 people have to leave every minute; and in Nigeria, 12 people every minute.

Based on the current realities in Nigeria, it is clear that as the poverty level is increasing, more births are witnessed every minute adding to the number of poor people in the country. At the moment, Nigeria’s population is put at almost 200 million and has continued to increase. Thus, as Nigeria faces population boom, it has been predicted that the country is likely to
become the world’s third-largest country by 2050 and without a proper mechanism in place to manage the increasing population, it will invariably mean an increase in the number of the poor. Although the SDGs have only been in place for five years now, available evidence shows that it is unlikely there will be a significant transformation in the remaining 10 years. Ending poverty in all its forms by 2030 in Nigeria is an illusion. Significant poverty reduction in the next 50 years may be possible if concrete and genuine efforts are made by the government and other stakeholders, but ending all forms of poverty is a dream.

CONCLUSION AND RECOMMENDATIONS

Poverty has been an issue of international concern. The United Nations in a bid to find a solution came up with the MDGs but the goals were not achieved by some developing countries including Nigeria. As a follow-up to the MDGs, the 17 Sustainable Development Goals were put forward in 2015 with the deadline for achievement in 2030. Ending poverty in all its forms remained the number one goal (just as the MDGs). Nigeria has keyed into the SDGs just like many other countries of the world. However, tackling poverty has been challenging for the country. Despite the various programmes and government initiatives such as the National Social Investment Programme and the establishment of many offices and committees saddled with the responsibility of poverty eradication in the country, poverty is a persistent problem. The study identified the various challenges standing in the way of the country’s efforts to end poverty. Some of these challenges are corruption and lack of accountability, poor infrastructure, increasing conflict, among others. The study asserted that ending poverty in all forms is not possible as the reality on the ground does not show any significant progress to end poverty in Nigeria. While the efforts made by the government, those efforts look like a drop of water in the ocean of poverty. Nigeria has become the poverty capital of the world.

This study then recommends that there should be true commitment by government agencies/persons saddled with the responsibility of ending poverty in the country such as the Office of the Senior Special Assistant to the President on SDGs and the National Assemblies Committees both the upper and lower chambers, among others. Also, the activities of the Government agencies/units that are working towards the eradication of poverty in the country should be properly monitored to ensure accountability and proper implementation of programmes at all levels of governments. Poverty alleviation should be made an explicit constitutional matter so that successive administrations can meaningfully bind its successor to poverty eradication programmes. Ending poverty should be incorporated into the nation’s overall development framework and made part of the national interests’ agenda. This is because poverty has become a cankerworm that has eaten deep into society, and there is, therefore, a need to adopt drastic measures to lift the people out of it.

REFERENCES

EDUCATION FOR ECONOMIC GROWTH IN THE NATIONAL DEVELOPMENT

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ABSTRACT
A deep study on education for economic growth in the national development. There is not any country can achieve economic growth without substantial investment in human capital. Education tries to develop the quality of their lives and leads to broad social benefits to individual and society. During study it found that how economics related to education, education as an investment, education and economic growth, role of economics in the development of human resources, (like making education job-oriented, increasing productive efficiency, streamlining expenditure on education, cost-benefit analysis, manpower planning and population education). After the deep study and discussion with educationists found that education, planning and economics should be very closely inter-related.

KEY WORDS: Education, Economic Growth, Investment, National Development

INTRODUCTION
Man is an integral part of the society. The man is product of society where a society also depends upon its individuals for its development. So education is a major part of education development. By which, economic growth is essential towards globalization. Economics has been defined as science of man in relation to his wealth getting wealth spending activities. So it is related to two basic phenomena such as: the wants of man and the resources of man. So man possesses physical wants such as food, clothing, shelter, comforts and luxuries. He also possesses psychological wants like belongingness, affection, love, self-expression, freedom, sense of achievement, emotions and basic urges etc. The resources are provided by nature. Economics makes a study of the unlimited wants to man and limited resources with which he wants to fulfill these wants. In this, the author points out that economics is no less connected with education. So investment in education has a unique importance to any nation. Education provides a foundation for development, the groundwork on which much of our economic and social wellbeing is built.

ECONOMICS RELATED TO EDUCATION
In the past, educationists have been discussing philosophy, sociology and psychology as the three foundations of education. But now-a-days a fourth and more foundation has come into fore-front. One of the best economics solution teacher Mr. Sanjay Kumar Mishra, who deliberately emphasized on me at the time of reporting that economics is no less related with education than the other three branches of knowledge. Briefly speaking the common areas of inter-relationship of economics and education are the following:
1. Economics determines some major aims of education
2. Economic explains the importance of education in so far as the economic growth of the country.
3. Education is itself an investment in economic terms
4. Economic teaches man to be a better producer both personal and country
5. Education removes poverty as it produces skilled labour and creates right attitude to work and development.
6. For the economic development of the country there is need for playing more attention to education.
The above points refer that the aim of education as for earning a living and making a good economic living is one of the major aims. Every parent educate their son, not particularly for culture, but with the expectation that his child after education will become doctor or an engineer or an administrator or a professor or social reformer. He sacrifices his hard earning to the maximum, for the benefit of his children with the expectation of monetary reward. To the common man investment on education simply for career, living employment opportunity and economic wellbeing. After spending a good number of years in schools and colleges, they expect jobs which are not forthcoming in good number. First of all we should respect our culture, which has been continuing in our family. Most of the parents are deprived that continuity. This is, how, economics has a great bearing on education these days.

EDUCATION AS AN INVESTMENT

Investment in education has a unique importance to any nation because the effect of under investment in this field can never be fully recovered. The author of this paper describes on education as an investment that:

1. Knowledge as capital
2. Educational cost
3. Cost Benefit Analysis
4. Investment in On-The-Job –Training

The above observations refer that education also is an investment. This lead to another issue i.e. education leads to economic growth of a country.

NATIONAL DEVELOPMENT

The author points out on this issue that national development is growth plus change. Change in turn is social and cultural as well as economic and qualitative as well as quantitative. National development includes all aspects of the life of an individual and the national-cultural, democratic, emotional, intellectual material, moral, physical and social. This development is not synonymous with economic development though economic development is an important fact of national development. The National Policy on Education 1986 has observed “The country has reached a stage in its economic and technical development when a major effort must be made to derive the maximum benefit from the assets already created and to assure that the fruits of change reach all section. Education is the highway to that goal.”

EDUCATION AND ECONOMIC GROWTH

There was a time, when an economist believed that economic development of a country depends upon its natural resources. But now there are ample evidences from a good number of developed countries, which possess scarce natural resources, for the example of Holland, Norway and Denmark posses meager natural resources and yet these are highly developed countries. Similar position is with regard to Switzerland, Japan and Israel. The Arab-countries have rich in oil resources. Japan is a small country with dense population, by its per-capital income is the highest in Asia. It has been proved beyond doubt that educational development of country is the most potent factor of its economic development. it is conclusive, therefore, that there is positive correlation between educational development and economic development. Out of four factors of production viz land, labour, capital and good organization are more important than land and capital. Education promises efficient labour and sophisticated organization.

EDUCATION AS HUMAN CAPITAL IN INDIA

It has been explained above in the economic development of country, human resources are more important than the natural resources. It is, therefore imperative that education in India should be geared to this end. A number of steps need to be taken so as to k=make the educational system meaningful from the point of view of economic prosperity such as –

1. Making education job-oriented
2. Increasing productive efficiency
3. Streamlining expenditure on education
4. Cost-benefit analysis
5. Manpower-planning
6. Population education

CONCLUSION

Thus it is essential that Education planning and Economics should be very closely inter-related. No Five-Year plan will succeed fully unless Education is linked with agriculture, industry transport services and social activities. Investment in human capital must be recognized at all levels of national development. Education is indispensable to Economic development. No Economic development is possible without good Education. A balanced Education system promotes not only Economic development but also productivity and generates individual income per capita. Its influence is noticeable at the micro level of an individual family.
REFERENCE


TACKLING MENTAL HEALTH IN SAUDI ARABIA IN THE LIGHT OF CONSIDERATION OF THE LIFE COURSE EPIDEMIOLOGICAL ISSUES

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ABSTRACT

Mental health disorders have started to increasingly become a public concern with more resources and efforts being put to promote awareness and fight stigmas associated with it. Depression represents one of the most common mental health disorders with a great economic and social burden both globally and in Saudi Arabia. This study focuses on addressing depression in Saudi Arabia. The epidemiology of depression in Saudi Arabia is described using Bellingham-Young basic principles model, describing the issue from the perspectives of who; when; where; what and why. The causes of depression among patients in Saudi Arabia is described in this study, mainly in relation to chronic diseases, age and gender. Next, several approaches are suggested to tackle depression among its patients in Saudi Arabia. These approaches are described according to Ritsatakis and Jarvisalo variation of the established Dahlgren and Whitehead stages model. Lastly, depression is discussed in the light of consideration of the life course epidemiological issues and how life events may affect the development of depression in adulthood.

KEYWORDS: Depression – Life Course Issues - Mental Health – Tackling Approaches - Saudi Arabia

1. INTRODUCTION

Mental health disorders have started to increasingly become a public concern with more resources and efforts being put to promote awareness and fight stigmas associated with it (1). As mental health disorders encompass a wide range of disorders, depression will be used as a study example in this study.

Depression is one of the most commonly diagnosed mental health disorder in adults and has been an increasingly major health burden which is not addressed properly in many societies. The impact of depression goes beyond being an economical burden as it encompasses detrimental suffering on both personal and interpersonal level, as well as its impact on societies (2).

The World Health Organizations’ (WHO) International Classification for Diseases and Related Disorders (ICD-10) requires the presence of at least four items for a duration of 2 weeks to meet the criteria for a depressive episode. These items include loss of appetite, loss of interest in activities, absence of emotional reactions, sleep disturbance, motor retardation, losing weight, loss of libido and decreased energy (3). Although depression could be diagnosed based on slightly different criteria like the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition (DSM-IV-TR) (4), applying these two different criteria do not yield significantly different results and hence they could be used interchangeably (5).

2. EPIDEMIOLOGY OF DEPRESSION IN SAUDI ARABIA

The epidemiology of depression will be discussed in its global prevalence and will be followed by its prevalence in Saudi Arabia (SA). To better address the issue, Bellingham-Young basic principles model (6) will be used to put it into perspective.

In a cross-sectional study including 7970 elderly patients, 3110 patients reported depressive symptoms (39%) and around 669 patients had significant depression score (7). This study has addressed several factors that strongly correlated with the prevalence of depression.
Who: Females were at higher risk of depression, which could be attributed to the masculine predominance in the Saudi society and inequality in accessing and reaching health care centres, especially in remote areas (8). People who were divorced had a higher association with developing depression which could be due to the societal stigma concerning divorce (9).

When: Elderly were higher risk of developing severe depression due to multiple reasons including significant loss of a close relative, lack of physical activity and limited participation in recreational activity. These factors were shared between elderly in SA and other countries (10).

Where: People living in a remote rural area were associated with higher depressive symptoms. This is due to the overall poor living conditions in such areas with poor housing arrangements, lack of education and unemployment.

What: These patients were diagnosed and treated correctly, but they required an appropriate social and medical support for an effective treatment.

Why: Dubovsky was the first to underpin the major religious and cultural obstacles to both seeking and committing to professional psychological and psychiatric treatment in SA (11). He described the widespread belief in ‘In-sha’allah’, explained as it is up to god’s will only whether a person gets sick or recover from a disease, regardless of any human intervention. Furthermore, seeking professional help is the last resort after faith healing and other practices such as cautery and topical herbs (12).

3. CAUSES OF DEPRESSION IN SAUDI ARABIA

Given the burden of depression, many researchers attempted to establish its causes (1). The use of population-scale studies such as cross-sectional studies or meta-analyses have led to finding many associations with depression. However, establishing a causality requires more than just an association. Out of these strong associations, old age, female gender and the presence of chronic diseases were chosen in this study to see whether they meet Bradford Hill Criteria (13) for establishing a causality.

In SA, the prevalence of depression was significantly higher in the elderly cohort compared to the younger ones (Table 1) (7,8). The female dominance in the prevalence of depression is also evident in the studies conducted in SA (7,14). These findings were consistent with other cohorts in the States and Europe (15–18).

<table>
<thead>
<tr>
<th>Depressive symptoms</th>
<th>Absence of depressive symptoms</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly</td>
<td>1890</td>
<td>1600</td>
</tr>
<tr>
<td>Young</td>
<td>1220</td>
<td>3260</td>
</tr>
<tr>
<td>Total</td>
<td>3110</td>
<td>4860</td>
</tr>
</tbody>
</table>

Table 1. Contingency table of the prevalence of depressive symptoms in a Saudi community. The calculated odds ratio (OR) is 3.15 showing that elderly subjects are more likely to develop depressive symptoms in the studied cohort. Contingency table was made from the data used in Al-Shammari study (7).

Expectedly, the development of depression happened after the presence of these risk factor, becoming old and being a female. However, it is important to notice that these factors are not specific to depression.

The comorbidity with chronic conditions is also strongly associated with depression in both the Saudi and international population (7,19,20). Although chronic diseases are not specific to depression, they occur before the development of depression. Chronic diseases and depression may be linked through the neuroendocrine activation and the elevation of inflammatory cytokines favouring the development of these chronic conditions associated with depression (21).

Despite the availability of evidence suggesting the significant association of these factors with depression, they cannot stand as sufficient causes i.e. their sole presence cannot cause depression, according to Rothman causality model (22).

However, female sex, old age and the presence of chronic diseases could be considered as component causes as they are consistently present in most depression patients.

4. APPROACHES OF TACKLING DEPRESSION IN SA.

The burden and the prevalence of depression globally as well as in SA makes it a critical problem that needs to be addressed. This information can help forming a health policy it to tackle depression in SA in several steps. These steps could follow either a problem-stream or a ‘stages’ model. Problem-stream model can be explained as bringing depression to the public attention leading to a public outcry prompting policy-makers to tackle it (23). The stages model is an approach in which a series of steps are taken in a chronological manner to tackle the problem. Adopting Ritsatakis and Jarvisalo variation of the
established Dahlgren and Whitehead stages model (24), the stages will include:

1. Raising public awareness.
2. Securing and ensuring the validity of the available data.
3. The formulation and implementation of a proposed policy.
4. Seeking and including non-governmental alliances.

SA has adopted a similar approach that to establish its mental health system summarised in Figure 1.

Figure 1. Mental health system in Saudi Arabia. The different component of the mental health system used in SA. Adopted from Qureshi’s study (26).

5. CONSIDERATION OF THE LIFE COURSE EPIDEMIOLOGICAL ISSUES

The seminal work of Baker and colleagues have led to the generation of the Developmental Origins of Health and Diseases (DOHaD) theory (27,28). This theory suggests that adulthood conditions are influenced by factors happening early in life, as early as the embryological stages.

This theory, although requires a series of scientific explanations in order to link early events to adulthood diseases, could explain why certain diseases like hypertension or lung cancers could happen on some people who do not live a sedentary life or smoke, respectively (29).

Although sometimes the association between early and later events could be easily understood and linked scientifically, the association between embryological events and adulthood diseases is far from being simple and straightforward rationale. For example, malnutrition of a pregnant woman will lead to the delivery of underweight or underdeveloped
baby, however, it is not clearly understood how coronary artery diseases could be attributed to being overweight at birth.

In the context of depression, there has been an increasing evidence of the early onset of depression and how likely for it to reoccur in adulthood (30,31). Cases of mood disorders, including depression, have a very early onset. Fifty percent of these cases have an onset at 14 years of age and 75% of these cases start by 24 (32,33). Zisook and colleagues have also demonstrated that earlier onset of depressive symptoms is greatly associated with a bigger disease burden and poorer prognosis (34).

In SA, early adverse childhood experiences (ACEs) were common, reaching almost 80% (35). These ACEs demonstrated a significant likelihood to develop depression, especially among women, as well as other chronic conditions. In 2 cross-sectional studies including 2286 school boys and girls, Al-Gelban and colleagues reported an early onset of depressive symptoms at 14 years of age, affecting almost one third of the subjects (36,37). However, these studies did not consider important living and social aspects such as parents mental health awareness, type of the house the pupils live in and privacy at home. The absence of some of these aspects are an important contributor to the development of depression both in Saudi and international cohorts (7,34).

Although it is yet to be explained how early events in life such as ACEs could lead to adulthood depression, current evidence highlights the urgent need to:
1. Pay more attention to the youth mental health in SA.
2. Raise public awareness of mental health issues especially among the younger age groups.
3. Early detection and intervention to such conditions.

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THE FEATURES OF AGRO-INDUSTRIAL CLUSTERS IN CHINA

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ABSTRACT

Clusters, which are regionally close and functionally interconnected organizations, manufacturing and service enterprises, are currently considered as one of the most important factors of achieving long-term development goals of the national economies, improving the welfare of the population, rationally allocating the means of production, ensuring innovative development and effective work of education-research-industry triangle. Agriculture and agro-industrial complexes are important components of the national economy of any country, and play an important role in ensuring the national, economic and food security, in the harmonious development of other sectors of economy. Today, the creation of agro-industrial clusters is of particular importance in many countries. The main reason is that enterprises operating in the cluster achieve greater economic efficiency and development opportunities. Moreover, agro-based clusters play an important role in modernizing and diversifying the economy, introducing modern technologies into production process, developing innovative activity, increasing the efficiency of agriculture, agro-industrial complex, and increase the volume of industrial production. Today, the development of industrial, innovative and agro clusters in the People's Republic of China is recognized as one of the key factors in ensuring the competitiveness of the national economy and food, vegetable, flower and livestock clusters are playing an important role in improving the economic efficiency of the regions and agricultural development in the country as a whole. This article reveals the main features of the formation and development agricultural clusters in the People's Republic of China and briefly overviews the specifics of agro-clusters in the country.

INDEX TERMS: cluster, agro cluster, agro-industrial cluster, TORCH program, competitiveness, “one city, on product” program, “dragon headed enterprise”, flower cluster, vegetable cluster, livestock cluster.

1. INTRODUCTION

Today, agricultural clusters can be seen in many countries around the world, because enterprises and organizations competing (competing in cooperation) in agricultural clusters achieve greater economic efficiency and get higher potential for development. As a result, an increase in the number of businesses enterprises and their integration into clusters spur the innovation activity of the sector and strengthen its competitiveness. In this context, particular attention is now being paid to the formation of agricultural clusters in both developed and developing countries [29].

According to Uzbek economist Juraev T. (2019) agro-industrial clusters include agricultural producers, suppliers of means of production, processing industry enterprises, service sectors (chemical, veterinary, seed, breeding, science, etc.), commercial establishments, various other economic entities and infrastructure facilities [31]. Sharma S. (2014) highlights that agro-industrial clusters development policies promote innovation and create important local externalities by establishing and maintaining vertical and horizontal links between local agricultural enterprises [17]. Agro-industrial cluster as the group of producers, suppliers and processors of agricultural products are associated with common commercial interests. The term agro-industrial cluster itself is commonly used in post-Soviet countries, and agro-industrial clusters are usually called agro-clusters or agribusiness clusters in other parts of the world. Modern economic literatures provide several explanations for the term "agricultural cluster":

• Agro cluster (AC) is simply a concentration of producers, agribusiness and institutions that are engaged in the same agricultural or agro-industrial sub-sector, and create communication networks and build values in solving common problems and achieving common opportunities [16].

• Agro cluster - the concentration of a critical mass of agricultural producers, food industry enterprises, as well as infrastructure organizations serving them, operating in the agriculture and other markets in a comfortable business environment created with the support of the authorities, whose relationships lead to the emergence of a synergistic effect that enhances the
competitiveness and stability of the region [27].

- The agro cluster is a sustainable long-term territorial-branch association of enterprises connected by partnerships with government bodies and scientific and educational centers, created with the aim of achieving competitiveness and sustainable development of agricultural organizations, regions and the country as a whole [30].

- Regional Agrarian Cluster (RAC) - the organizational form (network structure) of the consolidation of efforts of enterprises and organizations in a particular region aimed at ensuring its food security[28].

A well-developed concentration of the corresponding agribusiness in the cluster stimulates increased productivity through specialized resources, access to information, synergies and access to public goods, faster innovations through joint research and competitive aspiration. In its turn, Theus F., Zeng D. (2012) mention that competition, demand for services and attracting investors create favorable conditions for the development of a new business, which in its turn drives innovation [20].

2. METHODS AND LITERATURE REVIEW

In this article is used an abstract-analytical approach, an empirical research method, a monograph method, analysis and synthesis, and economic and statistical analysis. The theoretical and methodological aspects of the article are based on the work of foreign and local scientists, in particular, were overviewed the works of economists as Hongyong Zhang, Anna H. Jankowiak, Harald Bathelt, Peng-Fei Li, Zhen Ye, Marcus Conlé, Markus Taube, Federico Frattini, Giorgio Prodi, Kiminami L., Kiminami A., Liu Ping, Koziol Waldemar, CAO Qingsui, Yan Junwen, Zhufang, Tao Huaiying, M. Yu, J. Calzadilla, J.L. Lopez, A. Villa that studied the features of Chinese cluster policy, the characteristics of agro-industrial clusters and high-tech industries development in China [8, 1, 2, 7, 26, 14, 11, 12, 3, 18, 13]. It should be noted that, according to Teng, Z.H. and Wang, H. (2012) studies on agro-clusters in China have begun to be studied since the beginning of the 21st century, especially after 2003 [19]. Many of the studies have focused on the identification, formation, classification and problems of agricultural clusters, as well as the role of government in agricultural clusters development [13].

3. DISCUSSION AND ANALYSIS

3.1 Cluster Policy in China

In China, clustering and local concentration of industry began in the 1980s with the formation of special economic zones. As a result of the "Open Doors" policy, some parts of the country were opened to foreign investors and international trade [5]. In 1989, in the country was launched a "one city, one product" campaign, that meant the targeting of different regions on specific products. At the same time, it was established that at least 30% of the region's production and population were specialized in the same type of production. As a result, today by the Chinese clusters are understood not only the association of industrial enterprises, firms, universities, research institutes, but also whole cities themselves.

“Chinese model” of cluster formation is based on a “French” approach, and business cooperation in the country is supported by formal structures. In the Chinese cluster model, the government plays an important role in financing and maintaining the clusters. Both central and local governments develop cluster policies in the country and Chinese central government strives continuously develop clusters in accordance with guidelines for industrial cluster development announced by the National Development and Reform Commission (NDRC). One of the most important cluster development programs implemented by the Chinese government in 1988, was TORCH, based on China's initiative to develop new and high-tech industries [10]. Also, in a strategy in 2007, developed by the National Commission on Reforms and Development, clusters were mentioned as an important factor in economic development. This strategy identifies several areas that form the basis of the country's cluster policy: enhancing planning, rational use of resources, enhancing business through specialization, promoting innovation, promoting sustainable growth, encouraging regional branding through patents, services sector development and others [15].

In China, clusters are mainly developed in agriculture, high-tech industries and manufacturing. Looking at the cluster mapping of the country (Figure 1), we can see that the majority of the clusters are located in the eastern part of the country. Most clusters are located in Jiangsu, Shanghai, Zhejiang, Fujian and Guangdong provinces [21], while modern agricultural clusters are developed in Shandong, Beijing, and Shaanxi [9].
3.2 Agro-industrial clusters in China

When economic scientists analyze the real foundations and factors that lead to the formation of agricultural clusters in China, they mention the factors such as the expansion of agricultural production, advances in agricultural production and entrepreneurial activity of farmers, rural entrepreneurship, a high demand on agro-food production, market competition, and uneven distribution of agricultural resources.

According to Wang, J.G. (2005) there are several types of agro-industrial clusters in China, based on domination, composition and environment. From the organizational standpoint there are "company + farmer" type, coordinated farmer's cooperative, "dragon-headed enterprise" (mainly a company specializing in processing or distributing agricultural products and providing market access to farmers) and vertical integration [22]. Agricultural clusters also can be classified as dominant type, market type, investment-driven type, and specialized small-town type in terms of driving forces. From a private sector perspective, agricultural clusters can be divided into agricultural development, livestock clusters, agricultural processing clusters, agricultural product distribution clusters, and agricultural scientific and technical clusters [24].

M. Yu, J. Calzadilla, J. L. Lopez, A. Villa. (2013) discuss several challenges associated with the development of agricultural clusters in China, which may include the following [13]:

1) The agricultural cluster does not have specific regional characteristics, often has the same or similar industry, which negatively affects competition within the cluster;
2) insufficient agricultural dragon-based enterprises with strong potential to create large-scale small-scale farmers to produce highly competitive, market-oriented products;
3) the possibility of technological innovation in the agricultural cluster is still weak and the level of technology is still low;
4) It is difficult to create an environmentally profitable business environment with poor internal cluster capacity. There is insufficient cooperation between agricultural cluster participants and interconnection is poorly minimized, reducing the synergistic effect of the cluster;
5) Agricultural enterprises often face difficulties in financing by financial institutions. Support institutions and public utilities are not well established.

With the development of agriculture and the changing structure of agriculture, agro-industrial clusters have begun to emerge in many parts of China. Among them could be mentioned vegetable clusters in Shouguang, tea clusters in Anxi, flower cluster in Chenggong, sugar cluster in Guixian, garlic cluster in Jinxiang.
Being based on one type of agricultural product, these clusters are considered as the concentration of specialized producers, processors, suppliers, transport providers, intermediaries, research organizations, service organizations and other supporting institutions [23].

One of the most famous agricultural clusters in China is in Shouguang, where most vegetable production is produced. It was the pilot agro-based cluster in this province and nowadays is famous as the "homeland of Chinese vegetables". M. Yu, J. Calzadilla, J. L. Lopez, A. Villa (2013) highlight major role of the local government in the formation of the cluster. Because, within the support of local authority were restructured agricultural crops and expanded vegetable production; improved the infrastructure of agricultural production; introduced the new technologies and, increased the production efficiency; implemented the standardized production, improved vegetable quality and attracted investments in this field, created the "silicon valley" in agriculture; and was developed a market system, that increased distribution efficiency [13].

Another well-known agro-cluster in China is Chenggong flower cluster, in Dian that produces nearly 70% of the flowers in the Chinese flower market. At the same time, the government of China is paying a great attention to the development of livestock clusters in the country, and "Priority Area Program" of the Ministry of Agriculture of China is playing a major role in this process. The program, which includes 11 types of products, also includes the production and processing of cattle, mutton and goat meat, as well as supports the formation and emergence and the development of a large livestock sector in China [6]. Furthermore, it must be noted that China has also established international cooperation in the formation and development of economic clusters. China is one of the seven target countries participating in the EU’s European Strategic Cluster Partnership - Going International (ESCP-4i) and is one of the key areas of cooperation is food security [10].

4. CONCLUSION

In summary, it could be said that China’s cluster policy is unique because of the political, economic and social system of the country. For this reason, many economists believe that the Chinese cluster model cannot be implemented in other countries. In China, the authorities play a key figure in cluster policy, and local and central governments carry out the formation, development of clusters. At present, China is introducing innovative methods of development in agriculture through accelerating the development of agro-industrial clusters. This is due to the depletion of natural resources globally, the significant rise in demand for agricultural products and the strong competition in world economy. In these conditions, it is important to ensure the sustainable delivery and the improvement of the quality of agricultural products, increasing the competitiveness and opportunities for sustainable development of agriculture. In addition, agro-clusters are seen as a tool for employing a large number of people in China, especially in rural areas and to diversify the national economy and increase exports of Chinese agricultural products to world markets.

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ILLUSTRATION OF THE LOCATION AND THE IMAGE OF THE INHABITANT’S LIFESTYLE OF THE FERGANA VALLEY IN CHINESE SOURCES

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ABSTRACT

In this article, the problems of covering the population, lifestyle, history and topography of the Fergana Valley and its geographical location in historical sources, including “Tan shu”, “Beishi”, and other Chinese sources, have been highlighted by various scholars. A systematic review of the views of Chinese historians, European and Russian scholars. Historically, the Fergana Valley, located in the Central Asian region, has played a key role in relations with China. The Celestial Horses, which led to the China-Dawan War of 104–101 BC, as well as the regular ambassadors and tourists. The basic and valuable information about the Fergana Valley has been provided by Chinese sources and tourists. They studied the area more deeply than Greek, Roman, and Byzantine historians. In his travels to the Great Silk Road, Ambassador Zhang Zan first visited the Fergana Valley and learned about the location, population, lifestyle and traditions of the region because of its strategic vision of China. However, the names of territories and cities in different Chinese sources have differed widely. As a novelty, these sources are summarized by analyzing these sources at different times and collecting data on the population’s lifestyles. The toponyms and ethnos of this area were also identified, and their meaning and origin were analyzed analytically.

KEYWORDS: Fergana, Dovon, resources, Chjan Sian, Tan shu, Han shu, I.Bichurin, A.Bernshtam, Y. Zadnopravsky, Ershi.

INTRODUCTION

Historical analysis of the scientific literature shows that the history of the Fergana Valley in the early Middle Ages was not studied separately as a special research object. There are very few special monographs or research papers on topography and historical geography of the Fergana valley. In fact, scientific research on the subject has been going on since the second half of the 19th century. However, in the beginning of the 20th and 21st centuries, the subject historiography of the subject was only briefly reflected in the introduction, in some chapters, in a small number of articles in various monographs. As a result of the expansion of archaeological data in the 70-80s and later 90s of the XX century and their comparison with the written sources, the conclusions about the early medieval history, geography and urban planning, and the emergence of statehood and the analysis of the governance systems of cities and countries in the region during that period. In sum, the analysis of the extent of the problem shows that the ancient and early medieval historical geography of the Fergana Valley has not yet been fully integrated into the history of cities and states, and the problems of their governance systems have not yet been thoroughly analyzed. is one of the problems waiting for its solution. Since independence of the Republic of Uzbekistan, the attitude towards the fair and objective writing of our history is developing. The studies of the Russian Empire and the Soviet period are being re-examined and the mistakes and shortcomings revealed. As a result, the history of the Fergana Valley and its role in our statehood, the way of life and economic activity of its people are being studied.
The structure of this work consists of summarizing and integrating historians' views on the territory of the Fergana Valley, its various sources, description of Chinese chronicles at different times, the way of life and types of economic activity of the population.

THE MAIN RESULTS AND FINDINGS

Ancient Greek-Roman sources contain some information about the peoples of ancient Fergana. Scientist BA Litvinsky mentioned that Saks lived in the northeast of ancient Sogd [1, p.21-22].

Ancient tribes living in the region are said to have been divided into three groups in the writings of Greco-Roman historians.

The first group is called Saka-Tigrayhau and is represented by the “Saks wearing the hats” on Behistun rocks [2, p.114-115]. Their territories are now in the middle of the Tashkent oasis, southern Kazakhstan and the Syrdarya River. Herodotus included these Saks in the tenth satirical composition of the Achaemenid state. He called them Ortokoribandhi [3, p.7-8]. Orthopedics were adjacent to paricamia [3, p.7-8]. The Orthodox and the Parikianians paid a fixed fee, which was a satrap of the Achaemenid state. The late Roman historian Pliny (1st century CE), referring to these tombs, refers to the areas where the Paricamia was inhabited. The word pargama means “valley between the mountains” in one of the Persian dialects [3, p.7-8]. The scientist M. Isokhakov states that the word “Upari” means “high mountains” in Avesta and the word “Uparikan” means a sediment between the mountains. [4, p.25].

Probably, the parikanis were one of the tribes who lived in the territory of Ancient Fergana. Saks living north of Sogd may be Yakskartilites [5, p.114-115].

The second Saks are called saka-tayarartararaya in ancient sources and they lived in the lower reaches of the present Aral and Syrdarya rivers [2, p.116-117]. Bernshtam refers to these Saks [3, p.7-8].

The third Saks lived in northeastern Central Asia. Saks also lived in the Alai Valley, the Fergana Valley and Eastern Turkestan [5, p.113-114]. Herodotus refers to the Amakura as the area of their residence as the Yaksart-Syrdarya coast [3, p.7-8]. It is precisely these saccades that are inextricably linked to the ancient Fergana state.

According to the ancient Fergana Zadneprovsky, the region was inhabited by eastern Iranian tribes, and the population was Persian-speaking [6, p.91-92]. Also, the scientist At the end of the II millennium - the beginning of the I millennium the population of Ancient Fergana was occupied by a more severe crop. The social processes taking place in the region are very close to the features of the ancient society that were reflected in Avesto [6, p.91-92]. However, it is not clear that the people of Ancient Fergana spoke Eastern Iranian languages. Ancient Fergana's lifestyle resembles that of the Huns [7, p.53].

Earlier, there was virtually no information on social life, state structure and economy of ancient Fergana. Only after N.Y. Bichurin published Chinese sources about the ancient Fergana state Information about the Fergana-Davan began to be clarified. Chinese sources contain information about the ancient Fergana state. The eighteenth-century French historian J. Degene suggested that the state of the Davan (Day-Yuang), which is found in Chinese sources, was regarded as Ancient Fergana [8, pp. 336-337]. Ancient Fergana information is available in Chinese sources from the 2nd-1st centuries BC and the I-II centuries. It is likely that the Paricians, then, in the works of Herodotus and Pliny, were part of the population of ancient Fergana.

There is no reliable information on the origin, called the Davan. The researcher AN Burnstam cites the ancient Fergana period as the first period of its rise up to IV-II centuries BC [3, p.9-10].

The territory of the Davan State, in Chinese sources, corresponds to the present-day Fergana Valley. The Davan state is bordered by the Kango State in the north-west, the Yuejci state in the south, and the Usun region in the north [9, p.28-29].

Bichurin cites the Davan state areas as follows: Kangyui in the north, Yuejici in the west, Dahai in the south-west, Usun areas in the northeast, Gami and Yuyuan province in the ancient China [8, p.338-339]. Zadneprovskiy believes that the ancient Fergana state was a kingdom based on a union of cities and oases, and that the city was a union of states or oasis [6, p. 331-332]. The name Devanan (Davan) appears for the first time in the Shiji (Historical Memoirs) of the Sima Chiang (Russian language). This source was written in 104-91 BC. Information about Fergana in Shiji was sent to Turkestan in 138 BC and returned 13 years later. It appeared in Chinese sources through the report of the former Han Dynasty (206-23 BC) Zhang Chiang. For example, according to this source, in Chapter 126, “Devyuan Lezhanguan” appeared in the information “Devang Chiang Zhang”. In this commentary, where the source Devanan is used for the first time, the hieroglyph (“van”) is read “yuan” [10, p.9107]. Hanzi guying shoutse (“Ancient Chinese hieroglyphics” is not used) states that this hieroglyph was pronounced “yuan” in the past. So we thought it appropriate to use the ancient reading of the term.

Chinese sources dating back to the fifth century AD call the ancient Fergana Valley and the
state name Poluona, Fahanna. For example, the name of the Fergana Valley is “Luona” (Luona), in the “Veysu” (“History of the Wei Dynasty”), written by Wei Shu (506-572) and in the first half of the 7th century, “Du Juan jingshing ji” and “Fahanna”. There is another important piece of information in “Vashishhi” and “Beyshi”. It clearly states that “The state of Luona is the ancient state of Deweyan” (“Luonaguo gu Duyuan-guo ye”) [11, p.1293]. It should be noted here that Puo fell in the top of the Luona in the “Vashish”. This is illustrated by the group of historians led by Liu Hu in the 941-945 Tan Dynasty Palace, and in the Shin Tngshu, edited and supplemented by Ou Yangshu Sung Si in 1044-1060. For example, in the history of this dynasty, “Ningyuan was originally called Fahanna or Puohuan, during the Wei dynasty Puoluona (Poluona),” Historical events in the “Vashish” and “Beyshi” belong to the dynasties of Turkic origin. Therefore, in the history of this dynasty, many terms, especially non-Chinese toponyms, have been used in Chinese transcription of local names. Du Juan, the author of the mentioned voyage, was captured by the Arab and Chinese forces on the Talas River in 751 and held captive for many years. Upon his return to China, he used local toponyms and ethnos to write his memories. Based on these data, we can conclude that the Lona toponym in the “Veysu” is an abbreviated form of Poluona, while the toponyms Puoluona and Fahanna were used by the Chinese transcription of the terms Parkona and Fergana, and the term Fahanna from the 7th century. Relations with the Fergana region continued as soon as the dynasty came to power. The Tan dynasty was born in 618 with the help of the Turks, taking over the political situation of China at that time, the capture of the capital city Changan. Initially, he was succeeded by one of the rulers of the Sai dynasty, Yang Yun, who later took over and called his authority Tan (meaning the Great). It was no coincidence that Li Yuan was supported by the Turks. His ancestors lived in a place called Lungshi on the Kheshi Pass and their ethnic origin was Turks [12, p.128-129]. Nine years later, Lee Yuan handed over the throne to his son Lee Shimin (Taytsun 727-750). Then the Tan dynasty's policy towards the Turks began to change. At the time of the 3rd Emperor Gaotszun (650-684), the Tang dynasty pursued a policy against the Turks. The army began to fight against the Turkish kaganate. During the period of Shyuyun (712-756) the Tan dynasty attacked Turkestan. In 748 his troops invaded Suyei (present-day Tokmak), and the city was destroyed. In 750, they attacked Tashkent [13, p.18], the local ruler Jabshi (Chebishi) was captured and taken to China. The governor's son escaped and sought help from the Arabs [14, p.178]. In 751, the tanks were defeated by the Arabs in the Talas River.

For the next thousand years, Chinese troops were unable to walk towards Turkestan [15, p.84]. Western countries (Shiyuy lechjuan). Part 2 is actually Fergana (Baxanna) or Parkon (Puoxan / Pohan), 8,000 (4,608 km) away from the capital city of the Tan dynasty, dubbed Puoluona during the Wei dynasty [16, p.277]. The Naryn River, the ruler of Fergana, is the Zhengpu-hee (present-day Naryn-hee), also called Naruh [Shiyuy diming kaolu.1163-6]. north of Shijian (Shijian-cheng) was the center of Fergana during the reign of the Tan dynasty in China (618-907). There are six large, 100 small towns in Fergana, and its rulers (Wang I) have ruled from the Wei and Jin dynasties from generation to generation. Then they choose one person from each group, strip off their clothes, and fought. People throw clay pots and stones at one of the wrestlers until they die. On the basis of this, he determines whether the year will be good or bad. After that, his son Ebuechi gave Chibi's brother the title of king (wang) and made him governor of the city of Khumen. At the beginning of the Scythian period (656), the Ebuechi sent envoys to the Tan Dynasty Palace. Gaozun responded with great sympathy. In the third year of this period (658), the city of Kesai was called the province of Shuhyun (Erkeshtom), and the chief military officer (dudu) Alyochen (Alsan) was appointed governor. From that date he sent presents to the Dynasty Palace every year. Emperor Shuanzung's fenghuangang title was given to the ruler of the Fergana (wang) Aslan Tarhon for his cooperation with the Tan army to subdue Tuahauian (Tuhuoshyan) in the 27th year (739 AD), g.) The state of Fergana is called Ningyuan. The emperor gave the Fergana ruler the name of Dou, which is a foreign dynasty for his family. The dow (also called du) hieroglyphic is used for such meanings as "hole, cracks, ditches, big, cellars, big provinces," and as the name of a generation of "syambi" tribes. The Chinese top generation does not have this word. [Hanyudaaziyan. Volume 4,2745-6.].) The Emperor also sent a daughter of his own generation to the ruler of Fergana as the queen of the Hei. sent his son Shyueyuy to the Emperor's palace to study Chinese culture, where he lived and guarded.

The Fergana state (Buohanna-guo) is located 576 km south of Taraz (Danluosi). The eastern part of the mountain is covered by more than 2 thousand (1152 km) to Kashgar (Shule / Sule). It travels more than a thousand kilometers west to Tashkent (Shigu). There are several tens of cities in the Fergana state with an army of tens of thousands. In the 10th year (751) of the Tianbao dynasty of the Grand Tan (Datang) Princess Hei was sent as a bride. The
country has a bayoula forest, a mulberry area next to the forest, and wild rats on the mountain slopes. Grapes, chili, peach and pear grow well on the ground. From this country to the West Sea (Shihai - Aral Sea), people live in mud houses, wear sheepskin and cotton fabrics, men and women wear boots, women do not use antimony, but only tumors [7, p.86].

CONCLUSION

By studying and analyzing the works of Russian and Uzbek historians, as well as Chinese, Greek and Roman sources, the following conclusions were reached:

The history of the Fergana Valley is mostly available from Chinese sources. Greek and Roman historians, in particular, Geradot and Pompeii Troghs, have not personally visited the area, but have only given information about the area based on the information they have heard.

In various Chinese sources, the area is mentioned in different ways, such as Hanshu da Dayuan or Davan, Chinese sources dating back to the fifth century AD The ancient Fergana Valley and the state name Poluona, Fahanna. For example, the name of the Fergana Valley is "Luona" (Luona), in the "Veyshu" ("History of the Wei Dynasty"), written by Wei Shou (506-572) and in the first half of the 7th century. There is another important piece of information in "Veyshu" and "Beyshi". "The state of Luona is the ancient state of Dewan"

This is because these sources were written at different times, and the ruling dynasties in China were changing. And because the hieroglyphs have undergone changes at different times, the area is known to be the Fergana Valley, although it is different.

Chinese sources also know that the Fergana Valley was an independent government in the early Middle Ages. In the eighth centuries, and in the VII-VIII centuries, the Turkish khagan was fully independent in domestic politics and sought to be independent in foreign policy.

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ENERGY-EFFICIENT COMMUNICATION PROTOCOLS IN WIRELESS SENSOR NETWORK FOR VIDEO DATA TRANSMISSION

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ABSTRACT

Wireless sensor network (WSN) is a network of large number of interconnected nodes that can independently sense, process and transmit data between themselves and to the base station. Video wireless sensor network (VWSN) is used for capturing and transmitting video data. In VWSN each node consists of camera, memory, processing unit, communication unit and battery. Due to the small size and limited battery life of the node, transmission of video data is a challenging task, as it requires larger bandwidth and more processing power. This paper primarily focuses on energy optimization which is achieved by compression of video at the first stage by using Discrete Cosine Transform (DCT) lossless compression technique and then selection of the nodes for transmitting this video using 'Low Energy Adaptive Clustering Hierarchy' (LEACH) protocol. In LEACH protocol cluster head nodes are randomly selected in order to achieve even energy distribution.

KEYWORDS—Wireless Sensor Network (WSN); Video Wireless Sensor Networks (VWSN); Low Energy Adaptive Clustering Hierarchy (LEACH); Discrete Cosine Transform (DCT); Cluster Head (CH); Time Division Multiple Access (TDMA)

I. INTRODUCTION

Wireless Sensor Network (WSN) is a dense network of sensor nodes, where each node can sense, process and transmit data. Sensed data can be transmitted among the different nodes and from node to base station in a single hop or multi-hop fashion. WSN has vast military and civil applications where once the network is laid down, it can function on its own without human intervention. Traditionally WSN were used to sense the scalar environmental data like temperature, humidity, pressure, wind direction etc. With the advancement in technology, video transmission over WSN started gaining importance for transmitting accurate real time information, thus Video Wireless Sensor Networks (VWSN) was formed. In VWSN each node consists of camera, memory, processing unit, communication unit and battery.

Video sensing is useful in various applications such as: military, environmental, healthcare, industries and surveillance of all its types. It can play a vital role in intelligent traffic transportation system which includes traffic surveillance, parking assist, accident avoidance, driverless vehicle etc [1]. Major challenges for VWSN are area coverage by camera nodes, increased network capacity and real time transmission [2].

Energy of the nodes is mostly consumed in processing and transmitting video data due to its huge size. As battery life of nodes is limited, lifetime of the network can be enhanced by energy optimization while processing and transmitting data for VWSN [3]. This paper proposes a method in which the video data is initially compressed using Discrete Cosine Transform (DCT) based lossless compression.
scheme. Lossless compression leads to perfect reconstruction of transmitted data at the receiver. For transmission of this compressed video data, the energy of each node is calculated and based upon Low Energy Adaptive Clustering Hierarchy (LEACH) protocol; an optimal route is formed to transmit data. LEACH protocol optimizes overall energy of the network, which improves network lifetime.

II. LOSSLESS VIDEO COMPRESSION

In lossless data compression algorithms, the compressed data is perfect reconstruction of original data. Whereas in lossy compression technique, compressed data is only the approximation of original data. The reduction in file size is more in lossy compression as compared to lossless compression but at the cost of data loss. DCT has excellent energy compaction properties and thus it is selected as a standard for JPEG image compression [4]. For transmitting the video over the network, initially it is converted into series of frames.

Lossless DCT is the transform coding technique applied on each of these frames in order to compress it. Due to lossless video compression, the quality of video data is maintained as it is and the size of data is drastically reduced, which makes it suitable for transmission over the network.

After obtaining the compressed video, simulation model of sensor network is created. This simulation model is created to calculate energy of nodes and for finding the optimal energy path for video data transmission.

III. ENERGY OPTIMIZATION

In VWSN energy of each wireless node is limited due to battery life. The energy of the node is basically consumed for processing data and transmitting data. Processing of data is done before its transmission. If a node transmits data to another node which is not having sufficient energy to transmit it further, the data will be lost. In order to avoid such data loss, the energy of each node must be calculated before transmission and multi-hop routing [5] should be used for efficient data transmission and energy optimization. LEACH is efficient protocol based on clustering technique which evenly distributes the energy among the given nodes. LEACH is used for calculating energy of the nodes.

IV. LEACH PROTOCOL

LEACH is a hierarchical clustering and TDMA-based MAC layer protocol used for routing in WSNs. Hierarchical routing provides better energy efficiency and scalability due to its architecture. LEACH protocol improves the overall network lifetime as it lowers the energy consumption required to create as well as maintain clusters [6]. This protocol is robust and it distributes energy evenly among the nodes in a given WSN [7]. In LEACH protocol, most nodes transmit data in single hop or multi-hop pattern. Clusters are formed out of all the nodes in the network. Each cluster is assigned one cluster head. Communication within a cluster that is from node to cluster head is generally in a single hop pattern, this is also known as intra cluster communication. And communication among various CHs and from CHs to sink is usually in multi-hop pattern, which is known as inter cluster communication.

The function of CH is to aggregate and compress the data before forwarding it to base station. LEACH protocol consists of several rounds. Residual energy of the node is calculated after each round [11]. Each round has two phases: (a) set-up phase and (b) steady state phase. During the setup phase, energy of all nodes is calculated and the nodes that are having highest energy are selected as cluster heads (CH), after the selection of CH, clusters are formed out of the remaining nodes [8]. Each cluster has one CH and all the nodes in a cluster transmit data to CH based on Time Division Multiple Access (TDMA).

Assignment of TDMA schedule is done by the CH for member nodes. In the steady state phase, the actual data transmission from nodes to CH and from CH to base station takes place. Nodes that have been CHs in previous rounds cannot become CHs again for P rounds, where P is the desired percentage of CHs. Thereafter, each node has a 1/P probability of becoming a cluster head again. At the end of each round, each node that was not a cluster head selects the closest CH and joins that cluster and becomes new CH for that cluster. The CH then creates a new schedule for each node in its cluster to transmit its data.

The main objective of LEACH is to increase the energy efficiency by rotation-based CH selection using a random number. In CH selection process, each node generates a random value between 0 and 1, in order to get elected as a cluster head. When the
threshold value $T(n)$ exceeds this random number generated, then that node becomes CH. The value of $T(n)$ is calculated using the following formula given in Equation 1.

$$T(n) = \begin{cases} \frac{p}{1 - p (r \mod \frac{1}{p})}, & \text{if } n \in G \\ 0, & \text{otherwise} \end{cases}$$

Here $P$ is the required percentage of sensor nodes that need to become CHs among all the other nodes, $r$ represents the current round and $G$ denotes the set of sensor nodes that have not participated in CH election in earlier $1/P$ rounds. If node becomes the CH in round $r$ then it cannot participate again in the upcoming $1/P$ rounds. Thus each node gets equal chance to become the CH and it results in uniform distribution of energy dissipation among the sensor nodes. Once the node becomes CH, it broadcasts ‘join’ message to all other nodes in the network. Each node joins a particular cluster head depending upon the received signal strength. After the clusters are formed, CH assigns TDMA schedule to its cluster nodes. Based on this schedule, CH collects the data from nodes and transmits it further to other CHs or base station [9][10].

V. MATLAB SIMULATION

A. Data Compression

Initially the video is split into number of frames and then 8X8 block processing is used over each frame for compression. The output of DCT based compression is shown in the figures. It contains few frames from the original video and their counterparts from compressed video. Figure 1.1, 2.1 and 3.1 show the original frame with size 131KB, 134KB and 135KB respectively. Figure 1.2, 2.2 and 3.2 shows the corresponding compressed image frames which are having size of 15.1KB, 15.1KB and 15KB respectively. Thus the compression ratio of nearly 8.8 is achieved by DCT based lossless compression. The original video is having the size of 675KB and the corresponding compressed video is having the size of 76.4KB. This compressed video is the exact reconstruction of the original video. Percentage size reduction of an image [4] is given by the formula:

$$\text{Original file size - Compressed Size} \times 100\%$$

(2)

Original file size

From equation (2), it can be inferred that 88% to 90% reduction in size of the video is obtained after compression. Thus energy of each node consumed in processing as well as in transmitting the compressed video data, is reduced as compared to original video. Thus the network lifetime is also optimised. Trade-off between energy is needed for compression and transmission the video data is to be considered in order to enhance the functioning of VWSN.

Fig 1.1: Original frame1 size: 131 kb

Fig 1.2: Compressed frame1 size: 15.1 kb
B. Optimal Energy Route

Sensor network simulation model is created. The total numbers of nodes specified by the user are randomly deployed in 1000 X 1000 mts area. There is a single base station located at the centre. The sensor nodes are homogeneous and have uniform energy. Initial energy of each node is taken as 0.5 Joules. Total numbers of rounds are taken as 50. The number of nodes can be entered at the run time. The nodes having the highest energy are selected as CH, based on the formula specified in equation 1. CH sends join message to all the other nodes in the network. Based upon the received signal strength of the message, nodes join CH and clusters are formed. These nodes transmit directly to their respective cluster heads within a particular cluster based on the TDMA schedule assigned by the CH to nodes. After completion of each round, energy per node is calculated. Once a node is elected as CH in a particular round, it cannot become CH for the remaining rounds. Figure 4 displays the nodes communicating with CHs and CHs communicating with base station at the end of 50th round. Blue circle represents nodes and yellow circle represents CH. The communication between nodes to CH is shown by red lines. There are total five clusters in the figure.

Each cluster is having CH and the communication between various CHs and CH to base station located at centre is shown by using dotted lines. In each round, different clusters are formed and energy per node is calculated and then displayed after completion of that round. If the number of rounds is increased, the output will also display the dead nodes. Table 1 displays output of some rounds, out of total 50 rounds. The output energy of each node after completion of 5th round, 20th round and 50th round is shown in figure 5. After obtaining this output energy at the end of 50th round, an optimal energy route is found for video data transmission.
Fig 4: Simulation result for LEACH protocol

Table 1: Output showing energy per node at the end of 5th, 20th and 50th round;

<table>
<thead>
<tr>
<th>ROUNDS 5</th>
<th>ROUNDS 20</th>
<th>ROUNDS 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENERGY PER NODE AND ROUND</td>
<td>ENERGY PER NODE AND ROUND</td>
<td>ENERGY PER NODE AND ROUND</td>
</tr>
<tr>
<td>0.418003</td>
<td>0.213011</td>
<td>0.424276</td>
</tr>
<tr>
<td>0.298681</td>
<td>0.0057010</td>
<td>0.370215</td>
</tr>
<tr>
<td>0.395939</td>
<td>0.022647</td>
<td>0.290925</td>
</tr>
<tr>
<td>0.269877</td>
<td>0.4773610</td>
<td>0.456379</td>
</tr>
<tr>
<td>0.421440</td>
<td>0.462919</td>
<td>0.455383</td>
</tr>
</tbody>
</table>

CONCLUSION

In order to overcome the limitations of VWSN, a two-fold approach based on video compression and energy optimization is proposed in this paper. In the first part, DCT based lossless video compression is done and the compression ratio of 8.8 is obtained. After this a simulation model for sensor network is created and energy per node is calculated for each round by using LEACH protocol. Total number of rounds is chosen as 50. At the end of 50th round, an optimised route for video data transmission is obtained. As the battery life in sensor network is the main concern, energy optimization plays an important role. By compressing the video data, the overhead of data processing at each node is reduced. By choosing the least
energy route for this compressed data transmission, an overall energy optimised VWSN is obtained.

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EFFECTIVE PREDICTION OF HYPOTHYROID USING VARIOUS DATA MINING TECHNIQUES

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ABSTRACT
Thyroid is a common disease around the world. So there is an emerge to identify the disease for treatment. In older days, prediction process were very slow and the accuracy level was too poor. Data mining is one of the effective area where researchers doing implementations rapidly. Data mining in healthcare is providing a great result in various disease prediction. The accuracy of prediction using data mining techniques are high and the cost of prediction is low. The other main advantage is time taken for prediction is very less. In this paper, I implemented classification algorithms on thyroid data set and produced result.

KEYWORDS: Data mining, Classification, Thyroid, J48, Naive Bayes, Random Forest.

INTRODUCTION
Data mining takes a major role in Research which provides effective results in various fields and especially in health care also. It is more important to diagnosis diseases in early stage. Data mining techniques are efficient to predict the disease with high accuracy. These results are more useful to the patients who can start immediate treatment. Classification is used to assign the collected data items to the target class. These classification techniques are widely used because of its effectiveness in the prediction of diseases in healthcare domain.

Thyroid disease are one of the deadly disease which affect the human life worldwide. Thyroid disease is a medical condition that affects the function of thyroid gland which is located in the front neck of the human body. The main effect of this thyroid is to produce hormones which spreads through the bloodstream to all the organs of human body to affect the growth of the organs[1]. The shape of thyroid gland is like butterfly[2].

CLASSIFICATION ON THYROID DISEASE
The thyroid Diseases are majorly classified into two types.

Fig.No:1 Classification of Thyroid Disease
1. Hypothyroid
Hypothyroid is a kind of thyroid which means the insufficient production of hormones of thyroid gland. This insufficient growth can cause lot of problems in human body like too much of weight gain, dry skin and dry hair, heavy menstrual periods etc. These symptoms are different from one person to another.

2. Hyperthyroid
The term hyper refers that too much or heavy. So hyperthyroid indicates that the massive growth of hormones of thyroid glands. This hyperthyroid is often called as overactive thyroid. This may cause too much of weight loss even though the sufficient intake of food, increased heart rate, shorter menstrual periods etc.[3].

Table 1 shows the symptoms of Hypothyroid and Hyperthyroid.

<table>
<thead>
<tr>
<th>Hypothyroid</th>
<th>Hyperthyroid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory loss</td>
<td>Irritability</td>
</tr>
<tr>
<td>Dry hair</td>
<td>Hair loss</td>
</tr>
<tr>
<td>Muscle aches</td>
<td>Muscle weakness</td>
</tr>
<tr>
<td>Slow Heart beat</td>
<td>Rapid Heart beat</td>
</tr>
<tr>
<td>Heavy menstrual periods</td>
<td>Short Menstrual periods</td>
</tr>
<tr>
<td>Weight gain</td>
<td>Weight loss</td>
</tr>
<tr>
<td>Constipation</td>
<td>Sleeping difficulties</td>
</tr>
</tbody>
</table>

Tab.No:1 Symptoms of Hypothyroid and Hyperthyroid

RESEARCH METHODOLOGY
(i) Data set Description
The dataset was taken from UCI machine learning repository. The name of the dataset is hypothyroid. This dataset contains 3772 instances. In this dataset 3481 instances are in negative category and 194 instances are in compensated hypothyroid category, 95 instances are in primary hypothyroid category and 2 instances are in secondary hypothyroid category.

<table>
<thead>
<tr>
<th>DATA DESCRIPTION</th>
<th>ATTRIBUTE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>age</td>
</tr>
<tr>
<td>2</td>
<td>sex</td>
</tr>
<tr>
<td>3</td>
<td>on thyroxine</td>
</tr>
<tr>
<td>4</td>
<td>query on thyroxine</td>
</tr>
<tr>
<td>5</td>
<td>on antithyroid medication</td>
</tr>
<tr>
<td>6</td>
<td>sick</td>
</tr>
<tr>
<td>7</td>
<td>pregnant</td>
</tr>
<tr>
<td>8</td>
<td>thyroid surgery</td>
</tr>
<tr>
<td>9</td>
<td>I131 treatment</td>
</tr>
<tr>
<td>10</td>
<td>query hypothyroid</td>
</tr>
<tr>
<td>11</td>
<td>query hyperthyroid</td>
</tr>
<tr>
<td>12</td>
<td>lithium</td>
</tr>
<tr>
<td>13</td>
<td>goitre</td>
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<tr>
<td>14</td>
<td>tumor</td>
</tr>
<tr>
<td>15</td>
<td>hypopituitary</td>
</tr>
<tr>
<td>16</td>
<td>psych</td>
</tr>
<tr>
<td>17</td>
<td>TSH measured</td>
</tr>
<tr>
<td>18</td>
<td>TSH</td>
</tr>
<tr>
<td>19</td>
<td>T3 measured</td>
</tr>
</tbody>
</table>
Methodology used
Classification is the most popular technique of data mining which produces the best results of prediction. For this work, J48, naïve Bayes and Random Forest algorithms were taken for implementation.

- **J48 Classification Model:** This model is a tree based model which used Divide-and-Conquer method for prediction. By using this model, we can get a tree structure which contains one root node and many leaf nodes.

- **Naïve Bayes Model:** This Naïve Bayes is a collective model of various classification algorithms based on Bayes theorem. This model is one of the powerful model in classification which is used for high accuracy in prediction.

- **Random Forest Model:** Random forest is one of the effective classification model which contains collection of decision trees. This Random Forest was trained using Bagging method which produces number of decision trees to produce a forest like model.

RESULTS & DISCUSSION
The implementation was done with the help of WEKA tool. The dataset was taken from UCI repository.

1. **Preprocessing**
Preprocessing is the initial step of every data mining process. By using preprocessing we can identify the missing values, irrelevant data in the dataset and redundancy of the dataset. By removing the noisy data we can get preprocessed dataset for implantation. After that the Dataset was loaded into WEKA tool.
2. Classification
(i) Naïve Bayes:
By Using Naïve Bayes model, we can achieve 95% of accuracy. Time taken to build this model is 0.04 seconds.
(ii) J48 Model:
By using J48 model, the accuracy achieved is 99% and the time taken to build this model is 0.2 seconds.

(iii) Random Forest Model:
By using this model, the highest accuracy is reached. The Accuracy is 99.3% and time taken to construct this model is 1.17 second.
Comparison of Results:
The efficiency of used model is evaluated by the accuracy the reached and the time taken to reach.

1. Accuracy Comparison
Based on the Prediction accuracy, the Random Forest Model produced high accuracy than the other two models used.

<table>
<thead>
<tr>
<th>Model Used</th>
<th>Accuracy Reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naïve Bayes</td>
<td>95%</td>
</tr>
<tr>
<td>J48</td>
<td>99%</td>
</tr>
<tr>
<td>Random Forest</td>
<td>99.3%</td>
</tr>
</tbody>
</table>

2. Time Comparison:
Based on the time consumption to construct a model, Naïve Bayes model has taken very short period of time for prediction than the other two models.

<table>
<thead>
<tr>
<th>Model used</th>
<th>Time Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naïve Bayes</td>
<td>0.04 sec</td>
</tr>
<tr>
<td>J48</td>
<td>0.2 sec</td>
</tr>
<tr>
<td>Random Forest</td>
<td>1.17 sec</td>
</tr>
</tbody>
</table>

Fig.No: 6 Implementation using Random Forest Model

Fig.No: 7 Accuracy Comparison Report
CONCLUSION
The effectiveness of a model is basically evaluated by two aspects. One is prediction accuracy and the second is time taken for the prediction. Based on our results, Naïve Bayes had taken only 0.04 sec for prediction. But the accuracy level is low than J48 and Random Forest. If we had considered the prediction accuracy, Random Forest model produced 99.3% accuracy. But the time taken to build the model is high than the other two models. So we can conclude that J48 is the best model for hypothyroid prediction because the accuracy it produced is 99% which is also one of the highest accuracy and the time taken for this model is 0.2 sec which is comparatively low than the Random Forest model.

REFERENCES
NEW PHASE OF DEMOCRATIC DEVELOPMENTS IN UZBEKISTAN AND PHILOSOPHY OF PRAGMATISM

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ABSTRACT
This article depicts the philosophy of pragmatism, its relations with human’s attempts and social practical activity. The article will support the philosophy of pragmatism in the sphere of democratic reforms in Uzbekistan.

KEY WORDS: pragmatism, philosophy of pragmatism, social practical action, movement, ideas, doctrine, democratic reforms, changes.

INTRODUCTION
Changes in the community come from a specific scientific and theoretical concept, practical purpose, futurological idea. The scientific-theoretical concept means to practice the effects of scientifically proven results into a new social space or period, whereas the practical purpose is the result of which should be achieved and the expression of the daily needs. The futurology comes as thought, idea about the future and gives harmony to the two ones above. But any scientific and theoretical conception and futurological idea becomes more practical as a primary result, namely, a practical purpose shows how vital the concept and ideas are for the real life.

OBJECTIVES
Philosophy of pragmatism originated as an idea, doctrine which expressed changes in the social life in the US in the second half of the 19th century. It was spread to Great Britain and European countries in the 20th century. Its hynosological and social philosophical issues were revealed in the works by Charles Sanders Pierce (1839-1914). According to his perspectives, subjective ideas, views, imaginations which were occurred in the human’s brain, haven’t existed, don’t occur either. Its the beginning of “faneron” namely, any events, phenomenon [1; p.104].

So, Pierce believes that pragmatism is a practice, an experience relevant to social changes in real life. From this point of view, pragmatism has influenced all theoretical perspectives and scientific research in the United States, and has impacted on all political and creative minds to practice in the social life. With James Pierce, William James got published his work ‘The Will to Believe’in 1897. Then in 1907 he got his another book “Pragmatism. A new name for some old methods” published which describes pragmatism as a philosophical doctrine that relates to reality, action, practice and philosophy that differs from subjectivity.

In the period of the totalitarian system the works by Ch.S. Pierce, U. James, D. Dewey, D.G.Mid, covering theoretical-ideological views of pragmatism philosophy weren’t translated, until 2003 basic data about them were given only in the encyclopedias and dictionaries. "Republic"(Moscow) publishing house published the work by D.Dewey “Human problems(“Reconstruction in philosophy”)”.

Besides, the magazines "Questions of Philosophy ", "Police", and "Philosophical science" have published some articles on American pragmatism, whereas Uzbek philosophy does not contain any resources in this field.

According to Linghart, who learnt philosophy of pragmatism particularly, its base is social life, industry, economic life.[2, c.7]. F.K.S. Schiller called it "Philosophy of Motors” [3; c 44-45].

According to D. Dewey's point of view philosophy of pragmatism should be regarded as "Movement energy is an integral part of one's personality and intellect" [4; c 159]. In almost all works, pragmatism philosophy is recognized as an idea, doctrine of movement, practice, a revival, and a reflection.

If we imagine the democratic reforms and practical changes implemented in Uzbekistan today as ideas, doctrines and concepts, we can call them the philosophy of pragmatism. The head of our state
Sh. Mirziyoev gave the main strides to the movement in the "Movements Strategy" which was aimed at the breakthrough of democratic development of Uzbekistan. There is also profound meaning. One can see the following issues are put on agenda: the implementation of social and economic development, the rule of law and the judicial system, the development and liberalization of the economy, the social sphere, and the policy of implementation. “Implementing Movements Strategy in time and effectively is considered as the primary duty and activity of the state authorities, the rest, relevant authorities” [5; 4-5b]. Here the purpose is certain- to solve the current problems efficiently in its own time, namely, in the social-practical way.

RESULTS

The five directions of the Movement Strategy are focused on concrete, practical tasks. Each task is articulated clearly, without speculation. Although complex areas of social life sometimes require speculation, action and practical results indicate that task is the essence of duty. For example, the direction of developing the system of community management (1.3.). Specific tasks in it:

- implementing effective mechanisms of meetings with the population;
- developing modern forms of community-based inspection and improving effectiveness of social partnership;
- developing civil community institutions, improving their social and political activeness;
- strengthening the role and activeness of the institute of Mahalla in society;
- strengthening the role of mass media, protecting the professional activities of journalists. If the President's case comes to fruition after three years, we can see that this activity is focused on the consistent implementation of these tasks.

By the end of 2016, the President's reception places and special sites had been organized in order to meet with the people directly. In 2017-2018, websites of the First Minister and the rest Ministers were opened for citizens' applications. The President has received over 4 million applications so far in his site and reception places. The task of destroying the effective mechanism of the people's government has been put on the brink. At present, this Institute is challenged to investigate the problems of the public and convey them to the President. In total, 36 laws, more than 130 Presidential decrees and resolutions, more than 220 decisions and laws of the Cabinet of Ministers have been adopted to transform this institute into a permanent body of the people’s communication. According to the foreign experts, “Virtual receptions in Uzbekistan don’t have any other counter in the world. It strengthens transparency, trust of the people in the government and minimizes corruption” [6].

In short, each aspect of the Movements Strategy focuses on the implementation of such specific tasks. Mirziyoev's actions for modernizing the capital, cities, villages, building new houses, prosperous villages can be considered as the philosophy of pragmatism. Today infrastructure and vision of the cities and villages, roads connections are being completely outdated. The decree of the President of the Republic of Uzbekistan "Prosperous Village" (March 29, 2018) also states that despite the demographic, labor and economic empowerment, 49% of the population has been demolished, the necessary conditions have not been created. To solve this social-practical problem in this decree in 2018 two projects of "Prosperous village", in the next years three such kinds of projects for the development of the public living condition, modernizing the condition of occupations have been implemented. In 480 villages modern houses were built and degree of urbanization was improved [7].

CONCLUSION

Pragmatism is a philosophical idea of action, mobility, and practical activity. It doesn’t like essentially abstract and metaphysical jurisprudence prevails. Through the use of creative, socially-practical activity, it can give social change, reform, content and essence. In a way, it is not a philosopher or a philosophical idea, but the definition of daily actions. The philosophy of science can’t get anything from it. This is a tight approach to the philosophy of pragmatism, misunderstanding its essence.

Pragmatism is a philosophical phenomenon that reflects all the social movements and actions of humanity in a certain sense. The human brain is not a social and practical task, it is a philosophical essence, that is, the subject, the puzzle, the subject of philosophy from these social and practical studies.

Pragmatism is not a philosophical, linear movement (it's not the subject of physics) but a subject of social and practical research and activity. It is possible to study democratic reforms in Uzbekistan from the point of view of the philosophy of pragmatism, through its synthesis.

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THE RESULTS OF SELECTION AND BREEDING SELECTION AIMED AT IMPROVING THE BIOLOGICAL INDICATORS OF SEX-MARKED SILKWORM BREEDS

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ABSTRACT
The article presents the results of research on selection and breeding selection aimed at improving the biological indicators of sex-marked silkworm breeds. The improvement of biological indicators of silkworm breeds marked by gender with the color of green is achieved by carrying out selection and breeding selection, which leads to an increase in the viability of caterpillars and silkworm cocoons. The results of the 3-year study showed that breeding work aimed at improving biological indicators marked on the floor by the stage of the silkworm eggs of species C-5 and C-14 allowed us to increase the viability of caterpillars breed 5 90.0% breed C-14 to 90.9% and silkiness of cocoons breed 5 to 20.3%, species C-14 to 23.7%.

KEYWORDS: Silkworm, gender marking, breeds, selection, caterpillar viability, cocoon silkworm, green color.

INTRODUCTION
One of the major problems of sericulture around the world is the problem of obtaining pure hybrids that are not clogged with purebred material to realize all the advantages of heterocyst. To create pure hybrids, it is necessary to achieve precise separation of the component breeds by gender. This is possible when used in hybridization of sex-labeled rocks at the Greene stage. The gender-marked breeds were created precisely for the purpose of obtaining hybrids in industrial sericulture with 100% purity of the preparation of grain [1].

Genetic marking of eggs by gender [6] was obtained by coupling autosomal traits with gender under the influence of nuclear radiation. Translocation of part X of the autosome with the dominant W2 gene, which determines the dark color of the Grena, to the sex chromosome, leads to a clear division of eggs by color, and therefore by gender, and allows you to get pure hybrids that exceed the parent breeds in all indicators.

To achieve maximum heterocyst, hybridization should involve breeds with high productivity indicators. Therefore, breeding selection is carried out with breeds that are components of pure hybrids, aimed at improving, among other things, biological indicators.

MATERIALS AND METHODS
The work was carried out in 2012-2014 in the laboratory of selection and genetics of the silkworm of the SRIS (Scientific Research Institute of Sericulture) in the framework of the project KHA-8-032. The study used breeds C-5 and C-14 marked by gender by the color of the serous shell of eggs: females have a dark shell color, males C-5-yellow, C-14-brown.
The work with the breeds was carried out in accordance with the "Basic methodological provisions of breeding work with silkworms" [3], which were amended taking into account the genetic characteristics of sex-tagged breeds. For example, each family of the breed labeled by type was incubated separately by gender. At the stage of Gren, families with low reproductive indicators, with an incorrect sex ratio, and with a low percentage of Gren recovery were married. At the caterpillar stage, culling was performed in the case of heterogeneous development and low viability of the caterpillars. The analysis of families was carried out on a sample of 30 cocoons (15 females and 15 males). Families with low rates of silkiness, cocoon mass, and silk shell mass were rejected. According to the results of individual family analysis, cocoons with a large shell, high silkiness, and the characteristic shape of the cocoon for the breed and fine grain were selected for the preparation of masonry source material. The best individuals were crossed with the best ones using the outbreeding method. The remaining cocoons after selection were used for the preparation of super-elite and hybrid Grena.

**RESULTS AND DISCUSSION**

Every year, 25-30 families of each studied breed were fed. Their biological indicators are shown in table 1.

### Table 1

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Year</th>
<th>Viability of caterpillars, %</th>
<th>Cocoon weight, g</th>
<th>The weight of the shell, mg</th>
<th>Silkiness, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\bar{X} \pm S_x$</td>
<td>$\bar{X} \pm S_x$</td>
<td>$\bar{X} \pm S_x$</td>
<td>$\bar{X} \pm S_x$</td>
</tr>
<tr>
<td>C-5</td>
<td>2012</td>
<td>91,8±1,2</td>
<td>15,1</td>
<td>1,53±0,02</td>
<td>4,1</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>92,5±2,2</td>
<td>14,9</td>
<td>1,54±0,02</td>
<td>4,8</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>90,0±2,0</td>
<td>14,0</td>
<td>1,50±0,02</td>
<td>4,1</td>
</tr>
<tr>
<td>C-14</td>
<td>2012</td>
<td>92,5±3,3</td>
<td>14,8</td>
<td>1,48±0,21</td>
<td>6,6</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>91,8±3,0</td>
<td>15,1</td>
<td>1,50±0,02</td>
<td>6,6</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>90,9±3,0</td>
<td>15,2</td>
<td>1,48±0,02</td>
<td>3,3</td>
</tr>
<tr>
<td>Ipakchi 2 (k)</td>
<td>cp.</td>
<td>93,5±2,0</td>
<td>8,5</td>
<td>17,8±0,02</td>
<td>5,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20,8±0,2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21,2±0,17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20,3±0,2</td>
</tr>
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<td></td>
<td></td>
<td>4,2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>23,6±0,2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23,8±0,19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23,7±0,2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22,5±0,2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,9</td>
</tr>
</tbody>
</table>

As can be seen from table 1, the viability of caterpillars taken in the work of rocks for three years remained quite high and ranged from 90.0% to 92.5%. It should be noted that the viability of the tracks of the C-5 and C-14 breeds marked on the floor was somewhat reduced in comparison with the control. Sex-tagged breeds differ from normal breeds by the presence of chromosomal rearrangements in their genomes. Therefore, these breeds are more sensitive to any environmental conditions and can be used as an indicator of the genetic stability of the species.

According to U. N. Nasirillaev [4] silk productivity negatively correlates with the viability of caterpillars and reproductive traits, however, he also points out that selection can lead to changes in the existing relationships between traits with long-term, targeted and intensive selection. Therefore, if there is enough time, it is possible to achieve high silkiness, while maintaining maximum viability and reproductive properties.

In 2012, 2013, and 2014, 10 to 12 families with the best indicators of caterpillar viability and cocoon silkiness were selected from 25-30 families of each breed. From each selected family, 30-50 cocoons with the correct cocoon shape and fine grain were visually selected. All selected cocoons were individually weighed. Cocoons with the best silkiness were left to the tribe. As an example, and in order not to overload the article, table 2 shows the biological indicators of the families and cocoons of the studied breeds selected for the tribe, collected in 2014.
Table 2
Biological indicators of the families and cocoons of the studied breeds selected for the tribe (2014)

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Viability of caterpillars, %</th>
<th>Average weight</th>
<th>Silkiness, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>cocoon, g</td>
<td>shell, mg</td>
</tr>
<tr>
<td>C-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>raised families</td>
<td>90,0</td>
<td>1,50</td>
<td>320</td>
</tr>
<tr>
<td>tribal families</td>
<td>96,9</td>
<td>1,41</td>
<td>317</td>
</tr>
<tr>
<td>breeding cocoons</td>
<td>-</td>
<td>1,42</td>
<td>329</td>
</tr>
<tr>
<td>C-14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>raised families</td>
<td>60,9</td>
<td>1,48</td>
<td>350</td>
</tr>
<tr>
<td>tribal families</td>
<td>91,1</td>
<td>1,40</td>
<td>336</td>
</tr>
<tr>
<td>breeding cocoons</td>
<td>-</td>
<td>1,40</td>
<td>347</td>
</tr>
</tbody>
</table>

From table 2, it can be seen that when cocoons were silk-bearing, for example, the C-5 breed had 21.3% silkiness per tribe, and cocoons with a silkiness of 23.2% were allowed for pupalization. A similar selection was carried out in the C-14 breed (Table 2), i.e. the selection intensity was quite high.

This is shown in table 3. For all three years of research, the selection differential for silkiness was 0.6-1.0%.

Table 3
Selection differential for silkiness of breeds P-5, P-14 by year

<table>
<thead>
<tr>
<th>Breeds</th>
<th>Year</th>
<th>Number of cocoons, pieces</th>
<th>Silkiness, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Selected</td>
</tr>
<tr>
<td>C-5</td>
<td>2012</td>
<td>749</td>
<td>424</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>532</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>531</td>
<td>323</td>
</tr>
<tr>
<td>C-14</td>
<td>2012</td>
<td>534</td>
<td>297</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>412</td>
<td>290</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>652</td>
<td>396</td>
</tr>
</tbody>
</table>

In total, 1500-2000 cocoons of each breed were individually analyzed during the reporting period. Of these, 800-1100 pieces were allowed before the production of breeding grain, i.e. 60% of cocoons with the best silkiness. This intensity of selection made it possible to raise the silkiness of the subjects.

The tendency to increase silk-bearing capacity that has been observed for 2 years of selection can be strengthened if the selection continues and intensifies.

However, the indicators of silk productivity achieved to date are already comparable with the indicators of the studied breeds presented in the Catalog "Genetic Fund of the world collection of the silkworm of Uzbekistan" [2].

CONCLUSION

Selection and breeding for 3 years, aimed at improving biological indicators marked on the floor by the stage of the silkworm eggs of species C-5 and C-14, leads to an increase of viability of caterpillars breed-5 90.0% breed C-14 to 90.9% and sulconazole cocoons breed-5 to 20.3%, species C-14 to 23.7%.

REFERENCES

OPTIMIZATION OF EXTRACTION DNA FROM CEREAL APHID

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**ABSTRACT**

In this study, we report a modified SDS method for the extraction of high quality genomic DNA from a single aphid. This method efficiently isolates DNA from small specimens, which is difficult and challenging because of the small amount of starting tissue. Grinding with liquid nitrogen and phenol treatment are eliminated using this methodology. The A260/A280 absorbance ratios of the isolated DNA ranged from 1.67 to 1.94, suggesting that the DNA is pure and can be used for further molecular analysis. This method represents a fast, cheap, and effective alternative method for laboratories with low budgets.

**KEYWORDS:** Cereal aphids, genomic DNA extraction, SDS.

**INTRODUCTION**

Cereal aphids are a serious problem in wheat growing [1]. A considerable annual variation in aphid population dynamics has been frequently observed. The aphids form a multispecies complex on the cereal crops. Such parallel occurrence of multiple aphid species is determined by similar life history: the species are holocyclic though overwintering on different primary hosts [2]. The aphids migrate to wheat plants around mid-May from their winter hosts Rosa spp. (M. dirhodum), different Poaceae (S. avenae) and Prunuspadus L. (R. padi). Aphids can cause significant yield reduction by means of direct feeding damage and diseases introduced by virus transmission.

Cereal aphids have small size of 3-5mm. Identification of cereal aphids is traditionally based on morphological features, and although several keys exist, it is difficult to distinguish aphids morphologically because of presence of intraspecific variation and similarities between species [3]. It has also been reported that environmental conditions and different host plants species can cause morphological changes in aphids [2]. Furthermore, aphid eggs cannot be identified without culturing in the laboratory and then analyzing key features of the viviparous parthenogenetic female aphids and subsequent viviparous offspring. This process is time-consuming and laborious and aphid eggs have poor hatching rate in the lab. Therefore, application of molecular genetic approaches is necessary for identification of economically relevant aphid species in the cereal fields.

Isolation of genomic DNA is very important issue in the field of molecular biology. Extraction of high-quantity and -quality DNA from small amounts of insect tissue is often a difficult task [4]. The most commonly used DNA isolation methods employ toxic chemicals (phenol, chloroform, β-mercaptoethanol). For example, β-mercaptoethanol, which is being used in some protocols for example in CTAB protocol causes severe eye irritation, is harmful for skin, respiratory tract and central nervous system.

Several protocols for isolation of insects DNA have been published [5-8]. Commercially available DNA isolation kits (DN easy Qiagen, E.Z.N.A.® Insect
DNA Kit Omega bio-tek) provide higher throughput and reduced labor time, but their availability and high cost can be limiting factor for molecular genetics studies in the Uzbekistan, especially when field surveys of aphid populations require processing of a large number of samples and considering experiments with limited financial resources.

The main objective of this study was to establish an affordable, reproducible and efficient method for isolation of pure, high-yield DNA from aphids.

MATERIALS AND METHODS

Insect material. The aphids were collected from experimental wheat field in the Institute Genetics and Plant Experimental Biology, where a large diversity of aphid population is recorded. A total number of 8 aphid individuals were harvested from wheat leaves and spikes (figure 1). The research was performed in the Cereal Genetics Laboratory of the above mention Institute.

Reagents and solutions. Extraction buffer (fresh preparation): 0.5 % SDS; 50 mM NaCl; 100 mM EDTA; Chloroform : isooamil solution (24:1); Isopropanol; 70% ethanol; 5 M NaCl; TE buffer;

DNA extraction. DNA extraction method was adapted from [9] with modifications. For DNA isolation, entire fresh aphid (2 mg) was transferred to a 1.5 mL eppendorf tube, ground using a plastic pestle, and immediately mixed with 600µl SDS extraction buffer (0.5 % SDS; 50 mM NaCl; 100 mM EDTA) and incubated for 60 min at 550C with gentle mixing every 10 min. The samples were left at the room temperature (RT) and add then equal volume of 24:1 chloroform: isoamil solution was added to the each eppendorf tube. Then centrifugation was conducted at 10000 x g for 15 min at 4°C. After centrifugation supernatant was transferred to the new eppendorf tube. Then chloroform: isoamil solution treatment with subsequent centrifugation was repeated.

Then, supernatant was mixed with 60 µl 5M NaCl and 700 µl isopropanol, incubated in -20°C for night. Incubated samples were centrifuged for 15 minutes at 4°C in 14000g. Extracted DNA was twice washed by 600 micro liters 70% ethanol and centrifuged for 5 minutes at 4°C in 10000g. After completing the final step of ethanol wash the DNA was left for air drying. Finally DNA was resuspended and dissolved in TE buffer and stored in -20°C.

DNA quantification and visualization. The DNA samples were diluted 20-25 times with ddH2O and quantified by taking the optical density (OD) at 260 and 280 with a spectrophotometer Cary 60 uv-vis(Agilent). 5µL DNA was run at 5 V/cm for 40 minutes on a 1% agarose gel and then photographed under UV illumination in the gel image analysis system.

RESULTS AND DISCUSSION

In this study, we developed a simple, fast, and low-cost procedure to successfully extract genomic DNA from single aphids. The evaluation of integrity of the aphid genomic DNA isolated by this method showed intact/clear bands on agarose gel, suggesting that little or no DNA degradation had occurred during the extraction process (Figure 2). Spectrophotometer analysis showed that the A260/A280 ratios of DNA samples ranged from 1.67 to 1.94, suggesting that the DNA fraction was pure and may be used for further analysis. In all samples, the A260/A230 ratios were greater than 1.6, suggesting minimum contamination by polysaccharides. The DNA yields were from 97 to 150 ng/µL. The advantage of this method is its low cost. Grinding with liquid nitrogen and phenol treatment steps are eliminated using this methodology. All solutions used in this protocol are made from common and inexpensive chemicals.

It should be noted (due to pilot nature of our experiment) that there is one limitation of this study which. The fine quality of the genomic DNA isolated using this method and its applicability for subsequent molecular analysis needs to be further evaluated by PCR. Since DNA samples represents different species of cereal aphids, PCR should be conducted with universal invertebrate primers LCO-1490 and HCO-2198for amplification 658 base pair fragment of the 5’ end of cytochrome c oxidase subunit 1 (COI) [10], which give PCR product for all species of aphids.

CONCLUSION

Despite this limitations, this method is an efficient, inexpensive, and reproducible technique to isolate total
genomic DNA from aphid tissues, obtaining a good yield of DNA, even from very small specimens and this method has the potential to be useful for subsequent molecular genetic applications, and could represent a viable option for laboratories with low budgets.

REFERENCES
ESTABLISHMENT AND FUNCTIONING OF THE ORGANIZATIONS “ITTIHADI TARAKKIY” AND “NATIONAL INDEPENDENCE” AGAINST THE SOVIET SYSTEM

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ABSTRACT
In this article is investigated establishment and functioning of the organizations “national charge” and “national independence” against the soviet system by the helping archive sources and historical literatures as well.

KEY WORDS: establishment, organization, soviet system, national scientists, Jadids, soviet government.

INTRODUCTION
At the height of the nationalist movement against the Soviet government, Jadids, intellectuals and national leaders also led a covert struggle to overthrow the totalitarian system. In some cases, the struggle has been transparent and integrated into different groups and organizations. In fact, in August 1917, in the “Ittihadi tarakkiy” organized by Turkish immigrants Usmanbek and Haidar Efendi, Munavvar Kori was prominent. The main purpose of the organization, which worked in the opposition, was to criticize Soviet colonial policy, to politically activate the youth, and to reform the school.

According to Munavvar-kori, there were not many members in Tashkent. Although their number was less than 50, their reputation was very high. The association will send a special delegation to Turkey for help from foreigners, for example. But these efforts are ineffective. At the same time, the Soviet government increasingly intensifies the persecution and pressure on the leading representatives of the peoples of the country. In particular, the Jadids and their leader “The Unity of Progress” attacked. Under these conditions, the Jadids are changing the opposition movement. In January 1919, under the initiative of Munavvar Qori, the Union was established. But “The Prohibition” is not going to stop. In 1919, one of the parks near the Kashgar neighborhood of Tashkent hosted the Turkestan Congress of “Ittihadi tarakkiy”. The Central Committee of the organization will be formed.

Munavvar Kori writes: “When I was in Bukhara, I received a notice that the National Union of Unity had been established in Tashkent instead of the former” Testament. It was written in Turkish and did not belong to Heydar Afandi, because I know his handwriting well. I gave this message to Saudullah Khoja, Kushbegiev and Ali Rasulov [1, p.34].

METHODS
Concerning the structure and management of the organization, Munawwar Kari later wrote: There were Turks in the central committee of the National Unity Party. After the Turks leave, everything goes into the hands of Sadriddin Khan. The reason why the “charge of progress” is called “the charge of nationality” is probably because:

1. A national group was formed at the time that organization was in existence. They may be given the name “National Union” to disguise themselves as members of this group and to represent them as representatives of the congress.

2. Sadriddin Khan was religious and Islamic. It is likely that the organization was called “National Unity” (Union of Nations) to unite the Uzbek, Kazakh, Kyrgyz, Turkmen and Tajiks under its influence. In general, it is not a good idea to call the National Testing an organization similar to that of the “Union of Progressives”, but consisting only of local progressives, of old domestic and anti-colonial purposes. In fact, he had a very broad purpose.
Munavvar Kori gave detailed information about the establishment of the National Testing organization, its purpose, objectives and activities. Therefore, we did not consider in the dissertation the activity of the National Union of the Union.

Anti-corruption organizations, such as “Ittihadi tarakkii”, “Nationality of charges”, “Birlik”, did not observe unity in their activities. Due to differences and differences there was a division.

In this situation it was necessary to find a new tactical approach of the opposition movement, to consider the historical situation when using the new method. Jadids in the above-mentioned groups initially believed that the Soviet government could not stay in Turkestan for a long time and supported the direct armed struggle against the Soviets. But this did not give the expected result. The Jadids have continued to struggle secretly, based on their timing, approach to the Soviet government, and cooperation with them. In early 1919, a group of Jadids began to join the company [2, p.67]. As a result, the number of Muslims in the confirmation is increasing rapidly. This accelerated the creation of a separate national Muslim Communist sect. At the second TPP conference (March 14-31, 1919), the organization elected a Muslim bureau. T.Riskulov (chairman), Munavvar Kori, Yu.Aliiev and H.Ibragimov were elected to its composition. The office also had its own provincial, district and city Muslim bureaus. This system would have the power to independently decide on matters of interest to Muslims or to submit it directly to the central party body. In its activities, Musbyuro struggled as an opposition force to end the colonial efforts of the Soviet government in the country. These actions for the benefit of the people have been characterized as “national cohesion” and “nationalism”. This group was persecuted by the so-called communist “racists”.

RESULTS AND DISCUSSIONS
The Soviet government implemented a policy of centralization in Turkestan. In spite of indigenous resistance, the national government was forced to restrict its borders. Under these conditions, the efforts of our intellectuals and national leaders to combat the existing regime have not stopped [3, p.45]. The national independence movement, which fought armed against the Soviet regime, failed. New methods of struggle are created. One way was to gather the same intellectuals in conversation (consecutive hospitality) and to carry out a purposeful work. At the initiative of Rustambek Yusupov, Sadulla Kori Shamhammedov and Shahobiddin Ahmedov, a group of anti-Soviet Gap groups was formed in Tashkent’s Kukcha. The group consisted of teachers, educators of the time, who came from a family of big merchants and had studied at madrasas. The aim is to study and promote the nationalistic ideas and to assist them in their efforts to overthrow the Soviet government. Shahobiddin Ahmedov and Rustambek Yusupov, members of the Ittihadi tarakkii organization, were highly respected. Through their efforts, the participants of the discourse understand the essence of national identity. Until 1924, when this ruthless group was flooded with Turkish ideas, and now its ranks were filled with educated intellectuals, they began to work to establish an independent Uzbekistan, not Greater Turon. In this regard, many changes are taking place in the group. In addition to Saudullah Kori Shamhammedov, the arrival of new leaders such as Said Gafurov and Husan Khan Niyoziy also dictates different tasks. The core of the tasks that must be accomplished is to educate participants in the national spirit of the Soviet regime and to spread the ideas of independence among the masses [4, p.65].

Ilhom Islamov said about the activity: “The leaders of the group explain the national ideas in a systematic way. They explained the consequences of Russian chauvinism and disregard of the Uzbeks by the Russians (examples on the streets and trams deal with the local population), the expulsion of Uzbeks from the state institutions, and the resettlement of Russians. Said Gafurov then said that this was nothing more than a colonial policy that would make Central Asia their raw material” [5, p.39].

The members of the group are still colonized about the Soviet regime, but the difference is that once governed by one governor, now governed by a large number of governors, if previously the king's citizens were able to sue the governor, then no one could afford it but, on the contrary, all their lands were in the hands of Europeans, therefore it was necessary to propagate the idea of establishing an independent state in Uzbekistan. They summarize the situation in Central Asia with India: “In British colonial India, there is freedom of the press, everyone can criticize the government in the press, national customs are not followed, there is freedom of trade and the dictatorship of one party” [6, p.76].

Another goal of the Gap group was to fight against the Soviet. This Uzbekistan must be independent, or at least be the dominant of England. Because of its colonial policy, the following advantages are shown: Turkestan is the ally of England's assets in Asia, and most importantly, it does not have the opportunity to colonize a country of its own (small population). The Gap members thought that the British would not come, but that their capital would come and that our industry would develop and then we would get rid of the British and declare ourselves an independent state when the economic power of our country was established. The group concludes that “our goal is to overthrow the Soviet power and establish an independent Uzbek bourgeois state with the help of
capitalist states, and if not impossible, to become the
dominant of England like Egypt” [7, p.45].

The main task of the organization is to develop
and strengthen the national idea, national spirit. This
was evident in the literature and textbooks of that time.
Members of the organization believed that one of the
key ways to achieve independence was to replace the
management staff of the government and other state-
owned enterprises, institutions and institutions with
local personnel. They wanted to make use of the
localization policy of the company and seize power.
That is why the Trojan established at the National
Independence Center was engaged in localization. One
worked closely with the government's localization
commission, the other worked in media editorial
offices, and the third was in government agencies,
helping to bring people close to them to senior positions
and to work in various agencies and media. Ali
Rasulov, who headed the government's localization
commission for a while, was one of the activists of the
"National Independence". Many members of the
organization, working in high-level government and
party positions, have made clear proposals for the
opposition Bolshevik party policy. They completely
ignored the class struggle, which was the main idea of
the party. “We have,” writes Munavvar Kari, the basis
of our classical worldview is the
denial of classes. We
did not know the classes, unless we considered the large
bourgeoisie and the very small group of landowners and
traders we were all in sight. It is clear that our role in
the political life of the country after the October
Overturning, our struggle against the Soviet
government and the poor dictatorship is clear. This is
how our motto of independence comes from our efforts
to establish a bourgeois democratic Turkestan and then
an independent Uzbekistan”.

CONCLUSION
Thus, until 1930 the branches of the “National
Independence” organization operated in many parts of
the country. Archive documents covering the activities
of the National Coalition and the National
Independence were collected mainly through testimony
from the members of the organization and by spies. By
highlighting some of these, you can highlight the
overall purpose of their work.

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THE HISTORICAL FUNDAMENTS OF VALEOLOGY

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ABSTRACT
In this article have been investigated historical fundaments of valeology by the philosophical literatures and sources as well. Besides, research showed that human being connected his physical condition with mysterious imaginations when he was weak in front of the nature powers. During the primitive community period, it was expressed it’s on eyes, the chores of protecting the health was expressed via religious ceremonies.

KEY WORDS: history, valeology, subject, philosophy, ancient time, knowledge, biology, medicine.

INTRODUCTION
The attitude of human health depends on living style and his own ability of doing biological and social duties since ancient times. It is naturally clear that, such kind of attitude respectively comes together with human anatomy and psychological features, the items which spoils normal working system of human body and other kinds of knowledge.

Human being connected his physical condition with mysterious imaginations when he was weak in front of the nature powers. During the primitive community period, it was expressed it’s on eyes, the chores of protecting the health was expressed via religious ceremonies. But as a result of observing of his own life, human being noticed that health, lifestyle, dangerous items, herbal features of different items and reasonable connections.

The condition of the human being had been noticed with the connection of physical protection of himself, family and the tribe which he belongs to. Because of undeveloped medicine, people believed more the opportunities of his organism than his own treatment when he got ill and he lacked it the reasons of illness and mechanisms.

METHODS
During the period of slavery people tried to systemize the medical knowledge of human being. Mostly it was paid attention to more healthy life. As the fruit of the labour of Kon-Fusi by the Chinese (2600 BC), “Ayurveda” by the Indians (1800 BC), “About health life style” by Hippotrat. The main concept was not to treat the illness but developing human health, protecting, in case of bad medical conditions to use the reserved opportunities of health. According to the financial and social classification of the slavery society peoples attitude has been changed about human health. The messy lives of slave owners weren’t medically acceptable and they called doctors as soon as they had health problem. As a result of this, medicine had lost its feature of avoiding and started basing on treating. Moreover, Far Eastern countries (e.g. china and India), specifically their becoming “Closed countries”. anyway, we can see some scientist who researched about medicine in later centuries. For example, Abu Ali Ibn Sina (he was famous with the name “Avicena” in European countries) wrote “The laws of Medicine” to show that not treating illness but protecting the health to but protecting the health to live longer.

RESULTS AND DISCUSSIONS
The next steps of Civilization paid attention to treating the illness and it causes decreasing the attention to human health. It’s true that, Ibn Sina, Bekon, Lomonosov, Mudrov and other scientists also mentioned that main attention should be paid to human health and prophylaxis but the subject doesn’t choose this way.

At the end of 19th century Mechnikov made a speech at the meeting of doctors (in 1883) about “The
herbal power of organizm”. In this speech he criticize the term “etiologic”. He expressed the starting of illness because of combination of reason and the process of internal organism.

The 60s of the 20th century patalogic scientists Pavlenko and Obeynin started giving the explanation to mechanisms of human health and ways of affecting on it. They proved the concept “sinology” (the attempt or organism against the illness). The 70-80s of this century militaries (Kazncheev, Bersebeva and others) contributed much to the development of medicine. They started explaining the term donozologic diagnose”. Brexman (1982) is a man who proved the methodological fundaments of protecting the health. The purpose of new strategy consolidating valeology, its theoretical and practical achievements [4].

CONCLUSION
Valeology has three directions:

a) To create theoretical fundaments of valeology, including age valeology, medical geneties, immunology, reproductive sexology, ecological valeology;

b) To prove scientifically to develop theoretical features of physical education, self-controlling of psykosologic fundaments, all kinds of actions (labour and education);

c) To develop the vale logic education as a system of bringing up perfect people, increasing the recourses of health.

We can solve a several problems which are unsolvable e.g. developing the structure of health service and producing the technologies of health. Valeology service includes 4 steps:

- pronostical screening;
- searching the anomit of health the quality of it;
- choosing treating technologies;
- fulfilling the amount of health and quality.

It is believed that valeology will be effective way to treat health problems. If we don’t do something about it, or if human health can’t be problem of as a government affair, the society will face physical decrease.

REFERENCES
IMPACT OF HEALTH AND NUTRITION EDUCATION PROGRAMMES ON NUTRITIONAL STATUS AND DIETARY PATTERN OF ADOLESCENT GIRLS

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Prof. R.K. Anuradha
Professor, Department of Home Science, Sri Venkateswara University, Tirupati

ABSTRACT

Background: Adolescent girls form an important vulnerable and neglected sector of the Indian population. Malnutrition among adolescent girls adversely affects their physical growth, delays the pubertal development, declines cognition and impairs work capacity. Adolescents are at high risk for unhealthy eating and physical inactivity patterns that have become entrenched over the years resulting in the accumulation of obesity related complications and micronutrient deficiencies. The objective of the study was to screen malnourished adolescent girls from the selected area and to assess the impact of health and nutrition education programmes on nutritional status and dietary pattern of the selected subjects.

Methods: A multistage random sampling technique was used to ascertain the precise estimates of the population. A total number of 700 school going adolescent girls (13-17 years) were randomly selected for the study from 10 different schools of Puttaparthi, Anantapur District, Andhra Pradesh. Anthropometric assessment, haemoglobin level, blood pressure level and dietary pattern of adolescent girls were assessed before and after health and nutrition education intervention. The data analysis was carried out using the Statistical Package for Social Sciences (SPSS) Software.

Results: Post intervention results revealed a marked decline in the thinness among the subjects from pre-test to post-test i.e. from 13.7 to 9.1 per cent; overweight prevalence rate was also found to be decrease from 1.7 to 0.6 per cent among the subjects in the experimental group. Surprisingly, after intervention, 0.3 per cent of the obese subjects were found to be decreased and migrated from obese to overweight category. Health and nutrition education intervention produced a significant improvement in the haemoglobin profile and systolic and diastolic blood pressure levels in the experimental group. Among 13-15 years age group, the percentage increase in the average daily energy, protein and fat intake was found to be 15.8, 15.7 and 79 per cent, respectively in the experimental group. Similarly, among 16-17 years age group, the percentage increase in energy and protein intake was also found to be 20.7 and 15.5 per cent, respectively; the mean fat intake was observed to be decreased from 35.8 g/d to 34.9 g/d among the subjects. The mean intakes of micronutrients were also found to be enhanced after intervention in the experimental group.

Discussion: Health and nutrition education intervention programmes were found to improve food choices and dietary habits, which further persuaded health promotion and disease prevention among the subjects. The findings of the study strongly endorse the need to implement supplementation intervention programmes to prevent undernutrition and anaemia among adolescent girls. Besides this, the present study apostle the need to implement interventional measures for preventing obesity among adolescent girls.

KEYWORDS: Health and Nutrition Education, Dietary Pattern, Adolescent girls and nutritional status.
1. INTRODUCTION

The double burden of malnutrition is characterized by coexistence of undernutrition along with overweight and obesity. Despite a fast growing economy, substantial global and national mitigation strategies, India faces double burden of malnutrition, which is still inclining. During adolescence, changes in the physical characteristics and development of internal and external genitalia results in the maturation of a child to an adult capable of reproduction. Long term complications of malnutrition includes congestive heart failure, increased insulin resistance, diminished immune function, prone to infections, hypothermia, cardiac arrhythmia, stoke, hypertension, anaemia, diabetes and other vascular diseases.

Adolescent girls form an important vulnerable and neglected sector of the Indian population. WHO (2018) estimated that virtually anaemia is affecting 1.62 billion people across the globe with about 69.4 million adolescents, 56 million pregnant women, and 468 million non-pregnant women. Childhood and adolescence obesity is associated with a higher chance of obesity, premature death and disability in adulthood. Chronically malnourished girls are more likely to remain undernourished during adolescence and adulthood. It’s a viscous cycle of malnutrition. However, despite adolescents being a huge segment of the population, focus on adolescent group is negligible. In order to overcome nutritional vulnerability, tremendous focus is required to be forced on imparting awareness regarding health and nutrition among adolescent girls.

Health and nutrition education is an imperative measure to revamp dietary habits, food choices and nutritional status, since indigent dietary behaviour and practices are the main reason for meager nutritional status of adolescents (Awuuh et al., 2019; Shahsanai et al., 2018).

2. MATERIALS AND METHODS

In the present study, multistage random sampling technique was used to ascertain the precise estimates of the population. Puttaparthi Mandal consists of 20 municipal wards, of which 10 wards were opted randomly and one school from each ward was randomly selected and adolescent girls were sampled with probability proportionate to size and the subjects from 10 different schools. The sample size was established presuming a 95% confidence level with 2% sampling error. In the present study, the data was apprehended from 1300 subjects based on the availability of the subjects and unified sample was used in statistical analysis.

A predesigned and pretested structured schedule was designed to carry out the investigation. The data was collected using personal interview and pretested structured schedule. The questionnaire was infused with the socio-demographic characteristics, anthropometric data, clinical symptoms, biochemical assessment, menstrual history and dietary history. Anthropometric assessment, haemoglobin level, blood pressure level and dietary pattern of adolescent girls were assessed before and after health and nutrition education intervention. Knowledge regarding health and nutrition aspects was imparted for a period of six weeks to the selected subjects in order to enhance their health and nutrition awareness and to change their dietary behaviour.

The entire data was coded and statistical analysis was carried out through SPSS version 21.0. Continuous variables were bestowed with descriptive statistics and discontinuous variables with percentages. The difference in mean values of different parameters among the different age groups of adolescent girls has been compared with the help of t-test. P values <0.01 and <0.05 were arbitrated significant. Statistical analysis of the data was also performed using a two-way ANOVA calculation with Duncan’s pair wise comparisons between groups.

3. RESULTS

Health and nutrition education have a potential relationship with dietary and nutritional status of an individual. During adolescence, meeting the nutritional needs has a greater impact on learning achievements and overall personality development of adolescents. The socioeconomic characteristics of the selected subjects for health and nutrition education intervention programme were indicated in table 1. Out of the sample, maximum number of subjects (20.6%) belonged to age 14 years followed by 20.3, 20.0, 19.7 and 19.4 per cent for age 13, 16, 17 and 15 years respectively.

Data pertaining to the financial status of the selected subjects revealed that about 10.1 per cent of the subjects belonged to economically weaker section with income <2500/month. Income between 2501 to 5500/month were noticed to an extent of 25.6 per cent. About 58.6 per cent of the subjects belonged to middle income group with income ranging between 5501 to 10,000/month. Remaining subjects i.e., 5.7 per cent had income >10,000/month.

Religion and the caste wise distribution of the selected subjects showed that Hindus...
constituted the majority (70.3%) of the subjects, 23.9 per cent were Christians and 5.8 per cent of them were Muslims. About 49.4 per cent subjects belonged to the most backward classes. Scheduled caste and Scheduled tribe constituted 2.5 and 1.71 per cent of the total selected population respectively. About 4.57 per cent subjects belonged to the forward class. Minorities constituted 21.7 per cent of the total selected subjects for the study.

Data pertaining to the parental educational status of the selected subjects revealed that fathers’ had better educational status over mothers’. Among 700 subjects, fathers’ of the selected adolescent girls, 55.9 per cent of them had secondary school education. Less than one-fourth (26.9%) of them studied up to higher secondary level and only 7.9 per cent of them were graduates. Around 5.3 percent of them were educated up to primary level. However, 4 per cent did not receive school education at all. Majority of the mothers’ (47%) received education up to primary school level followed by secondary school education (12.4%), higher secondary school education (2.43%) and only 0.57 per cent received education up to graduation level. About 37.6 per cent of subjects’ mothers were found to be illiterate.

Table 1. Socioeconomic characteristics of the subjects (N= 700) for Health and Nutrition Education Intervention

<table>
<thead>
<tr>
<th>SNO.</th>
<th>SOCIOECONOMIC GRADIENTS</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 years</td>
<td>142</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td>14 years</td>
<td>144</td>
<td>20.6</td>
</tr>
<tr>
<td></td>
<td>15 years</td>
<td>136</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>16 years</td>
<td>140</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>17 years</td>
<td>138</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>700</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>Family income</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economically weak (&lt; 2500 INR/month)</td>
<td>71</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>Low income (2501 - 5500 INR/month)</td>
<td>179</td>
<td>25.6</td>
</tr>
<tr>
<td></td>
<td>Middle income (5501 – 10,000 INR/month)</td>
<td>410</td>
<td>58.6</td>
</tr>
<tr>
<td></td>
<td>High income (&gt;10,001 INR/month)</td>
<td>40</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>700</td>
<td>100</td>
</tr>
<tr>
<td>3.</td>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hindu</td>
<td>492</td>
<td>70.3</td>
</tr>
<tr>
<td></td>
<td>Christian</td>
<td>167</td>
<td>23.9</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>41</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>700</td>
<td>100</td>
</tr>
<tr>
<td>4.</td>
<td>Caste/ Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forward caste</td>
<td>32</td>
<td>4.57</td>
</tr>
<tr>
<td></td>
<td>Backward caste</td>
<td>346</td>
<td>49.4</td>
</tr>
<tr>
<td></td>
<td>Most backward caste</td>
<td>141</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td>Scheduled caste</td>
<td>17</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Scheduled tribe</td>
<td>12</td>
<td>1.71</td>
</tr>
<tr>
<td></td>
<td>Minority</td>
<td>152</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>700</td>
<td>100</td>
</tr>
<tr>
<td>5.</td>
<td>Fathers’ Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illiterate</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Primary level (1st-4th)</td>
<td>37</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>Secondary level (5th-10th)</td>
<td>391</td>
<td>55.9</td>
</tr>
<tr>
<td></td>
<td>Higher secondary (11th&amp; 12th)</td>
<td>188</td>
<td>26.9</td>
</tr>
<tr>
<td></td>
<td>Graduation &amp; above</td>
<td>55</td>
<td>7.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>700</td>
<td>100</td>
</tr>
</tbody>
</table>
Anthropometric Assessment

Table 2 depicts the impact of health and nutrition education intervention on anthropometric assessment of the subjects of different age groups.

The comparison of data on height, weight and body mass index during pre and post intervention period revealed that there was no change. Among all age groups, the mean height was found to be lower than ICMR standards.

During pre-assessment, among 13, 14 and 15 years age group, the mean weight of subjects in experimental group was found to be lower (5.7%, 6.5% and 1.8% respectively) than ICMR standards. Accelerated weights were observed among 16 and 17 years age group. When compared with ICMR standard, the weights were found to be higher (5.8% and 25%) respectively.

Post intervention results indicated an increment in mean weight and BMI of the subjects in experimental group. Among 13 years age group, the percentage increase in weight (6.4%) was found to be significantly ($p<0.05$) higher in experimental group in comparison with control group (0.3%). The mean weight increased significantly ($p<0.05$) from initial value of 34.4 to 36.2 kg in the experimental group of 14 years of the subjects. In the experimental group, an increment in mean weights of 15 years subjects was observed ($p<0.05$), ranging between 38.1 and 39.7 kg. The health and nutrition education intervention produced a significant ($p<0.05$) progressive decline (5.3% and 6.2%) in the mean weight of 16 and 17 years subjects respectively.

A slight increase in mean BMI of 13, 14 and 15 years of subjects was observed from pre to post assessment in control as well as experimental group, whereas a reduction in the mean BMI was noticed in experimental group of 16 and 17 years of the subjects.

Nutritional Grades of BMI

Table 3 indicates the impact of health and nutrition education intervention on nutritional grades of the subjects. During pre-assessment, 13.7 per cent of adolescent girls in the experimental group fell under thinness category followed by severe thinness (5.4 per cent), overweight (1.7 per cent) and obesity (0.3 per cent) in the experimental group.
### TABLE 2. IMPACT OF HEALTH AND NUTRITION EDUCATION INTERVENTION ON WEIGHT, HEIGHT AND BMI

<table>
<thead>
<tr>
<th>AGE</th>
<th>GROUP</th>
<th>ICMR STANDARD</th>
<th>PRE TEST</th>
<th>POST TEST</th>
<th>Difference of BMI</th>
<th>'t'-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Wt (kg)</td>
<td>Ht (cm)</td>
<td>Wt (kg)</td>
<td>Ht (cm)</td>
<td>BMI (kg/m²)</td>
</tr>
<tr>
<td>13 YEARS</td>
<td>CONTROL GROUP (n = 71)</td>
<td>MEAN</td>
<td>31.1</td>
<td>135.5</td>
<td>17.1</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>33.3</td>
<td>143.9</td>
<td>2.1</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>EXPERIMENTAL GROUP (n =71)</td>
<td>MEAN</td>
<td>31.4</td>
<td>136.1</td>
<td>17.2</td>
<td>33.4</td>
</tr>
<tr>
<td>14 YEARS</td>
<td>CONTROL GROUP (n = 72)</td>
<td>MEAN</td>
<td>33.1</td>
<td>140.1</td>
<td>17.1</td>
<td>33.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>36.8</td>
<td>147.5</td>
<td>2.1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>EXPERIMENTAL GROUP (n =72)</td>
<td>MEAN</td>
<td>34.4</td>
<td>140</td>
<td>17.3</td>
<td>36.2</td>
</tr>
<tr>
<td>15 YEARS</td>
<td>CONTROL GROUP (n = 68)</td>
<td>MEAN</td>
<td>38.2</td>
<td>142.1</td>
<td>18.8</td>
<td>38.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>38.8</td>
<td>149.6</td>
<td>1.8</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>EXPERIMENTAL GROUP (n =68)</td>
<td>MEAN</td>
<td>38.1</td>
<td>142</td>
<td>18.9</td>
<td>39.7</td>
</tr>
<tr>
<td>16 YEARS</td>
<td>CONTROL GROUP (n = 70)</td>
<td>MEAN</td>
<td>43.8</td>
<td>147.8</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>41.1</td>
<td>151.1</td>
<td>2.8</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>EXPERIMENTAL GROUP (n =70)</td>
<td>MEAN</td>
<td>43.5</td>
<td>147.2</td>
<td>20.1</td>
<td>41.2</td>
</tr>
<tr>
<td>17 YEARS</td>
<td>CONTROL GROUP (n = 69)</td>
<td>MEAN</td>
<td>53.2</td>
<td>148</td>
<td>25.1</td>
<td>53.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>42.4</td>
<td>151.5</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>EXPERIMENTAL GROUP (n =69)</td>
<td>MEAN</td>
<td>53</td>
<td>148.4</td>
<td>25</td>
<td>49.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>42.4</td>
<td>151.5</td>
<td>2.1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

# SD : Standard Deviation : *Significant at 5 % level
TABLE 3. IMPACT OF HEALTH AND NUTRITION EDUCATION INTERVENTION ON NUTRITIONAL GRADES OF THE SUBJECTS

<table>
<thead>
<tr>
<th>SNO</th>
<th>BMI FOR AGE (WHO z-score)</th>
<th>SUBJECTS (N=700)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CONTROL GROUP (n=350)</td>
</tr>
<tr>
<td></td>
<td>PRE TEST</td>
<td>POST TEST</td>
</tr>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td>1.</td>
<td>Severe Thinness</td>
<td>27 7.7</td>
</tr>
<tr>
<td>2.</td>
<td>Thinness</td>
<td>50 14.3</td>
</tr>
<tr>
<td>3.</td>
<td>Normal</td>
<td>269 77.1</td>
</tr>
<tr>
<td>4.</td>
<td>Overweight</td>
<td>3 0.9</td>
</tr>
<tr>
<td>5.</td>
<td>Obesity</td>
<td>1 0.3</td>
</tr>
<tr>
<td>Total</td>
<td>350 100</td>
<td>350 100</td>
</tr>
</tbody>
</table>

Post intervention results produced an increment in the nutritional grades of the subjects. Majority of the subjects (90.1 per cent) had normal BMI in the experimental group. About 9.1 per cent of the subjects were categorized under thinness grade. The prevalence of overweight was also observed among 0.6 per cent of the subjects. None of the subjects were suffering from severe thinness and obesity.

In control group, the prevalence of overweight, obesity and thinness remained unchanged between pre-assessment and post-assessment, except a slight reduction in severe thinness category.

Haemoglobin Profile

Table 4 shows the impact of health and nutrition education intervention on haemoglobin profile of subjects. Post intervention results indicated a significant (p<0.05) improvement in the haemoglobin profile (10.5 g/dl to 12.9 g/dl) of the subjects of the experimental group. The percentage increase in haemoglobin level was 13.3 per cent indicating the efficacy of health and nutrition education intervention.

Table 4. Impact of Health and Nutrition Education Intervention on Haemoglobin Profile of the

<table>
<thead>
<tr>
<th>Parameters</th>
<th>NORMAL Hb LEVEL</th>
<th>CONTROL GROUP (N = 350)</th>
<th>EXPERIMENTAL GROUP (N=350)</th>
<th>F value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PRE TEST</td>
<td>POST TEST</td>
<td>DIFFERENCE</td>
<td>PRE TEST</td>
</tr>
<tr>
<td>Haemoglobin (g/dl)</td>
<td>≥12 g/dl</td>
<td>10.2 ± 0.2</td>
<td>10.3 ± 2.6</td>
<td>0.1</td>
<td>10.5 ± 1.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26.18</td>
<td></td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Values are mean ± SD of number of subjects under each group.

Blood Pressure Profile

Table 5 represents the impact of health and nutrition education intervention on blood pressure profile of the subjects.

The health and nutrition education intervention produced a significant (p<0.01) decline in systolic and diastolic blood pressure levels; the mean systolic blood pressure was reduced from 121.3 mmHg to 118.2 mmHg and the mean diastolic blood pressure was reduced from 74.1 mmHg to 71.6 mmHg.
Table 5. Impact of Health and Nutrition Education Intervention on Blood Pressure Profile of the Subjects (N=700)

<table>
<thead>
<tr>
<th>GROUP</th>
<th>CONTROL GROUP (N = 350)</th>
<th>EXPERIMENTAL GROUP (N = 350)</th>
<th>F value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PRE TEST</td>
<td>POST TEST</td>
<td>PRE TEST</td>
<td>POST TEST</td>
</tr>
<tr>
<td>Systolic Blood Pressure</td>
<td>120.7± 1.2</td>
<td>121.1± 0.3</td>
<td>121.3±1.4</td>
<td>118.2± 0.9</td>
</tr>
<tr>
<td>Diastolic Blood Pressure</td>
<td>73.4 ± 0.1</td>
<td>74.2± 2.7</td>
<td>74.1 ± 0.2</td>
<td>71.6± 2.3</td>
</tr>
</tbody>
</table>

Values are mean ± SD of number of subjects under each group
*Significant at p <0.01 level.

Impact of Health and Nutrition Education Intervention on Dietary Pattern

Post intervention results indicated a significant increment in the intake of all nutrients of the experimental group. Table 6 and 7 represents mean nutrient intake before and after health and nutrition education intervention among 13-15 and 16-17 years age group respectively.

Among 13-15 years age group, the percentage increase in the average daily energy, protein and fat intake was found to be 15.8, 15.7 and 79 per cent, respectively in the experimental group. Similarly, among 16-17 years age group, the percentage increase in energy and protein intake was also found to be 20.7 and 15.5 per cent, respectively; the mean fat intake was observed to be decreased from 35.8 g/d to 34.9 g/d among the subjects. The mean intakes of micronutrients such as β-carotene, B vitamins, vitamin C, calcium, iron, magnesium were also found to be enhanced after intervention in the experimental group. The daily average intake of fibre among 13-15 years and 16-17 years of subjects were found to be significantly (p<0.05) higher in experimental group in comparison with control group.

Post intervention results produced a significant increase in the consumption pattern of whole grains, green leafy vegetables, other vegetables, fruits, egg, fish, meat products, milk and milk products, health drinks and fresh fruit juices among the subjects. Surprisingly, a drastic decline in the consumption pattern of junk foods and fast foods, carbonated beverages, coloured juices, dark chocolate and milk chocolate were observed among the subjects after intervention in the experimental group.
### TABLE 6. IMPACT OF HEALTH AND NUTRITION EDUCATION INTERVENTION ON THE NUTRIENT INTAKE PROFILE OF THE SUBJECTS OF 13-15 YEARS

<table>
<thead>
<tr>
<th>SNO.</th>
<th>NUTRIENT</th>
<th>RDA* (13-15yrs)</th>
<th>13-15 YEARS (N = 422)</th>
<th>PRE TEST</th>
<th>POST TEST</th>
<th>MEAN DIFF*</th>
<th>'t'-VALUE</th>
<th>PRE TEST</th>
<th>POST TEST</th>
<th>MEAN DIFF*</th>
<th>'t'-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>CONTROL GROUP (N = 211)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EXPERIMENTAL GROUP (N = 211)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Energy (Kcal./d)</td>
<td>2330</td>
<td>2020 0.2</td>
<td>2021.2</td>
<td>0.6</td>
<td>1.2</td>
<td>0.1</td>
<td>2021</td>
<td>0.01</td>
<td>2341</td>
<td>1.7</td>
</tr>
<tr>
<td>2.</td>
<td>Protein (g/d)</td>
<td>51.9 44 2.4</td>
<td>45 1.7</td>
<td>0</td>
<td>0.3</td>
<td>45</td>
<td>0.03</td>
<td>52.1</td>
<td>0.8</td>
<td>7.1 0.9*</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Fat (g/d)</td>
<td>40 22.6 1.7</td>
<td>23 2.4</td>
<td>0.4</td>
<td>0.02</td>
<td>23</td>
<td>2</td>
<td>41.2</td>
<td>0.2</td>
<td>18.2 2.4**</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>β carotene (µg/ d)</td>
<td>4800</td>
<td>2813 0.8</td>
<td>2815 0.02</td>
<td>2</td>
<td>1.4</td>
<td>2878</td>
<td>2.4</td>
<td>4920</td>
<td>2.4</td>
<td>2042 3.7**</td>
</tr>
<tr>
<td>5.</td>
<td>Thiamine (mg/ d)</td>
<td>1.2 0.65 1.3</td>
<td>0.65 1.3</td>
<td>0</td>
<td>0.0</td>
<td>0.7</td>
<td>1.7</td>
<td>1.3</td>
<td>1.7</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>6.</td>
<td>Riboflavin (mg/ d)</td>
<td>1.4 1.1 0.6</td>
<td>1.17 0.2</td>
<td>0.07</td>
<td>0.04</td>
<td>1.1</td>
<td>0.8</td>
<td>1.42</td>
<td>0.8</td>
<td>0.32 1.3</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Niacin (mg/ d)</td>
<td>14 12 1.7</td>
<td>12.2 2.4</td>
<td>0.2</td>
<td>0.8</td>
<td>12</td>
<td>0.2</td>
<td>14.7</td>
<td>1.3</td>
<td>2.7 1.9*</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Pyridoxine (mg/ d)</td>
<td>2.0 1.6 2.4</td>
<td>1.61 1.7</td>
<td>0.01</td>
<td>0.03</td>
<td>1.6</td>
<td>2.4</td>
<td>2.4</td>
<td>0.6</td>
<td>0.8 1.7*</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Dietary Folate(µg/ d)</td>
<td>150 88.2</td>
<td>88.4 0.8</td>
<td>0.2</td>
<td>0.1</td>
<td>88</td>
<td>1.7</td>
<td>162</td>
<td>1.7</td>
<td>74 2.6**</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Vitamin B₁₂(µg/ d)</td>
<td>0.2 -1.0</td>
<td>0.8 1.1</td>
<td>0.8</td>
<td>0.0</td>
<td>0.7</td>
<td>0.8</td>
<td>1.2</td>
<td>0.01</td>
<td>0.5 1.7*</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Vitamin C (mg/ d)</td>
<td>40 37 2.7</td>
<td>37.3 0.6</td>
<td>0.03</td>
<td>0.03</td>
<td>37</td>
<td>1.3</td>
<td>43</td>
<td>0.03</td>
<td>6 3.4**</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Calcium (mg/ d)</td>
<td>800 680 0.03</td>
<td>682 1.7</td>
<td>2</td>
<td>1.6</td>
<td>681</td>
<td>0.6</td>
<td>825</td>
<td>2</td>
<td>144 0.02</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Iron (mg/ d)</td>
<td>27 21 2.4</td>
<td>21 2.4</td>
<td>0.0</td>
<td>0.0</td>
<td>22</td>
<td>1.7</td>
<td>28.1</td>
<td>0.1</td>
<td>6.1 2.6*</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Magnesium (µg/ d)</td>
<td>210 130</td>
<td>132 0.02</td>
<td>2</td>
<td>1.2</td>
<td>129</td>
<td>2.4</td>
<td>215</td>
<td>0.01</td>
<td>86 1.7*</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Zinc (mg/d)</td>
<td>11 8 0.1</td>
<td>8.1 1.1</td>
<td>0.1</td>
<td>0.06</td>
<td>7</td>
<td>0.2</td>
<td>11.9</td>
<td>1.7</td>
<td>4.9 2*</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Fibre (g/d)</td>
<td>25-30 20 0.2</td>
<td>20.3 2.7</td>
<td>0.3</td>
<td>0.02</td>
<td>19</td>
<td>2.4</td>
<td>26.7</td>
<td>0.8</td>
<td>7.7 2.1*</td>
<td></td>
</tr>
</tbody>
</table>

* RDA: Recommended Dietary Allowance  
# SD: Standard Deviation  
*Mean Diff: Mean Difference = Mean Score of (Post Test – Pre Test)  
*Significant at 5% level; **Significant at 1% level
### TABLE 7: IMPACT OF HEALTH AND NUTRITION EDUCATION INTERVENTION ON THE NUTRIENT INTAKE PROFILE OF THE SUBJECTS OF 16-17 YEARS

<table>
<thead>
<tr>
<th>SNO.</th>
<th>NUTRIENT</th>
<th>RDA* (16-17yrs)</th>
<th>16-17 YEARS (N = 278)</th>
<th>16-17 YEARS (N = 278)</th>
<th>16-17 YEARS (N = 278)</th>
<th>16-17 YEARS (N = 278)</th>
<th>16-17 YEARS (N = 278)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>CONTROL GROUP (N = 139)</td>
<td>EXPERIMENTAL GROUP (N = 139)</td>
<td></td>
<td>CONTROL GROUP (N = 139)</td>
<td>EXPERIMENTAL GROUP (N = 139)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre Test</td>
<td>Post Test</td>
<td>Mean Diff*</td>
<td>'t'-Value</td>
<td>Pre Test</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MEAN</td>
<td>SD*</td>
<td>MEAN</td>
<td>SD*</td>
<td>MEAN</td>
</tr>
<tr>
<td>1</td>
<td>Energy (Kcal./d)</td>
<td>2440</td>
<td>2023</td>
<td>1.7</td>
<td>2026</td>
<td>0.8</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Protein (g/d)</td>
<td>55.5</td>
<td>49</td>
<td>0.8</td>
<td>48.9</td>
<td>0.2</td>
<td>-0.1</td>
</tr>
<tr>
<td>3</td>
<td>Fat (g/d)</td>
<td>35</td>
<td>35.9</td>
<td>0.2</td>
<td>38.4</td>
<td>2.4</td>
<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>β carotene (µg/d)</td>
<td>4800</td>
<td>2176</td>
<td>2.4</td>
<td>2179</td>
<td>1.7</td>
<td>-3</td>
</tr>
<tr>
<td>5</td>
<td>Thiamine (mg/d)</td>
<td>1.0</td>
<td>0.9</td>
<td>1.7</td>
<td>0.88</td>
<td>0.8</td>
<td>-0.02</td>
</tr>
<tr>
<td>6</td>
<td>Riboflavin (mg/d)</td>
<td>1.2</td>
<td>1</td>
<td>0.8</td>
<td>0.9</td>
<td>1.3</td>
<td>-0.1</td>
</tr>
<tr>
<td>7</td>
<td>Niacin (mg/d)</td>
<td>14</td>
<td>11.2</td>
<td>1.3</td>
<td>11</td>
<td>0.6</td>
<td>-0.2</td>
</tr>
<tr>
<td>8</td>
<td>Pyridoxine (mg/d)</td>
<td>2.0</td>
<td>1.6</td>
<td>0.6</td>
<td>1.56</td>
<td>1.7</td>
<td>-0.04</td>
</tr>
<tr>
<td>9</td>
<td>Dietary Folate(µg/d)</td>
<td>200</td>
<td>81</td>
<td>1.7</td>
<td>80</td>
<td>2.4</td>
<td>-1</td>
</tr>
<tr>
<td>10</td>
<td>Vitamin B₁₂(µg/d)</td>
<td>0.2 – 1.0</td>
<td>0.8</td>
<td>0.01</td>
<td>0.77</td>
<td>1.7</td>
<td>-0.03</td>
</tr>
<tr>
<td>11</td>
<td>Vitamin C (mg/d)</td>
<td>40</td>
<td>38</td>
<td>0.03</td>
<td>38.2</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>12</td>
<td>Calcium (mg/d)</td>
<td>800</td>
<td>601</td>
<td>2</td>
<td>603</td>
<td>1.3</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Iron (mg/d)</td>
<td>28</td>
<td>21</td>
<td>0.6</td>
<td>21</td>
<td>0.6</td>
<td>0.0</td>
</tr>
<tr>
<td>14</td>
<td>Magnesium (µg/d)</td>
<td>235</td>
<td>127</td>
<td>0.01</td>
<td>128.5</td>
<td>1.7</td>
<td>1.5</td>
</tr>
<tr>
<td>15</td>
<td>Zinc (mg/d)</td>
<td>12</td>
<td>8</td>
<td>1.7</td>
<td>8.4</td>
<td>0.01</td>
<td>0.4</td>
</tr>
<tr>
<td>16</td>
<td>Fibre (g/d)</td>
<td>25-30</td>
<td>18</td>
<td>0.8</td>
<td>19</td>
<td>1.7</td>
<td>-1</td>
</tr>
</tbody>
</table>

*RDA: Recommended Dietary Allowance  
#SD: Standard Deviation  
#Mean Diff: Mean Difference = Mean Score of (Post Test – Pre Test)  
*Significant at 5 % level;  **Significant at 1 % level
4. DISCUSSION

Health and nutrition education is an imperative measure to revamp dietary habits, food choices and nutritional status, since indigent dietary behaviour and practices are the main reason for meager nutritional status of adolescents (Awuuh et al., 2019; Shahsanaei et al., 2018).

In the present study, post intervention results indicated a significant increment in mean weight and BMI among 13-15 years of the subjects in experimental group. A decline in the mean weight and BMI was observed among 16-17 years of the subjects after intervention. Based on the nutritional grades of BMI for age (z-scores), the post intervention results revealed a marked decline in the thinness among the subjects from pre-test to post-test i.e. from 13.7 to 9.1 per cent; overweight prevalence rate was also found to be decreased from 1.7 to 0.6 per cent among the subjects in the experimental group. After intervention, 0.3 per cent of the obese subjects classified into overweight category. None of the subjects were affected with severe thinness after nutrition education intervention.

Growth may be sensitive to nutritional deficit and surfeit, adolescent anthropometry provides indicators of nutritional status and health risk, and may be diagnostic of obesity and underweight. Findings of the present study are in concurrence with the study conducted by Baldassso et al., (2016), which revealed that the overall prevalence of overweight and obesity was found to be 24.2 per cent. After intervention, 5.6 per cent of obese subjects classified into overweight category. Post intervention results of nutrition education revealed a marked increase in the mean weights and BMI of the subjects. In the experimental group, the prevalence of severe thinness (2.41%) and thinness (7.93%) were found to be decreased and our results were in accordance with the study of Dharmade and Kale, (2017).

Post intervention results indicated a significant improvement in the haemoglobin profile of the subjects of the experimental group. The levels increased significantly from initial value of 10.5 g/dl to 12.9 g/dl in the experimental group. The percentage increase in haemoglobin content was found to be 13.3 per cent in the experimental group after imparting health and nutritional awareness among the subjects. Findings of the present study were in concurrence with the study conducted by Kaur et al., (2011), which revealed similar results among the adolescent girls of 17-19 years age group. Nutrition education intervention revealed a significant rise in haemoglobin levels of the subjects from the initial value of 11.20 g/dl to 11.75 g/dl as compared to baseline with 12 months follow up study.

Karmakar et al., (2014) showed similar effects of increase in the knowledge regarding anaemia among adolescent girls. Such educational programmes for adolescent girls are extremely essential to do away with the menace of nutritional anaemia in a community. There was a positive correlation between knowledge and attitude of adolescent girls with regard to prevention of anaemia. A study conducted by Resmi et al., (2017) revealed that the inadequate knowledge and neutral attitude among adolescent girls regarding prevention of anaemia was the major cause of anaemia among them. The study concluded that adolescent girls should be sensitized with the knowledge regarding prevention of anaemia to enhance their understanding and surpassing attitude towards health and nutrition.

In the present study, the health and nutrition education intervention showed declining trend in systolic and diastolic blood pressure levels; the mean systolic blood pressure reduced from 121.3 mmHg to 118.2 mmHg and the mean diastolic blood pressure from 74.1 mmHg to 71.6 mmHg. Ribeiro, (2014) revealed that educational interventions were potential tools for improving the blood pressure levels in the patients with hypertension. Evidences revealed that higher intake of potassium, calcium and magnesium are inversely related to blood pressure levels. A study conducted by Falkner et al., (2000) showed that among adolescents with hypertension, the blood pressure levels found to be lower in those with higher intakes of dietary nutrients such as potassium, calcium, magnesium and dietary folate.

Post intervention results revealed a marked increment in the average daily intake of all nutrients among 13-15 and 16-17 years of the subjects in experimental group. Among 13-15 years age group, the percentage increase in the average daily energy, protein and fat intake were found to be 15.8, 15.7 and 79 per cent, respectively in the experimental group. Among 13-15 years age group, the percentage increase in energy and protein intake were found to be 20.7 and 15.5 per cent, respectively; the mean fat intake was observed to be decreased from 35.8 g/d to 34.9 g/d among the subjects. The mean intake of vitamins and minerals were also found to be enhanced after intervention among the subjects of both the age groups of 13-15 and 16-17 years in the experimental group. Findings of the present study were in concurrence with the study conducted by Amber and Sengupta, (2015), which revealed a significant increment in the mean protein intake from 47.27 to 53.67 g/d among 16-19 years of adolescent girls after imparting nutrition education programme.

The dietary intakes for energy and fats were found to be decreased after intervention, which were found to be more than RDA at baseline. Sharma and Singh, (2017) revealed the effectiveness of Nutrition
Education Programme (NEP) among 13-17 years of adolescent girls in enhancing mean nutrient intake of all the nutrients except for calcium, which were still found to be lower than recommended dietary allowances.

5. CONCLUSIONS

Health and nutrition education intervention programmes were found to improve food choices and dietary habits, which further persuaded health promotion and disease prevention among the subjects. The findings of the study strongly endorse the need to implement supplementation intervention programmes to prevent undernutrition and anaemia among adolescent girls. Besides this, the present study apostle the need to implement interventional measures for preventing obesity among adolescent girls.

6. REFERENCE


CONSUMER’S PERCEPTION TOWARDS STREET FOOD IN MALAYSIA

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ABSTRACT
Eating out is part of the culture in Malaysia. Street food, in particular, has been popular not only among the locals but also the international tourists. Due to its popularity and low entry threshold, the street food market is competitive in Malaysia. Understanding the consumers and giving them what they want becomes critical for the success of street food vendors. Thus, this descriptive study aims to examine consumers’ perception towards street food in Puncak Alam, a newly developed town in Selangor, Malaysia. Quantitative method was employed for this study and 379 questionnaires were conveniently distributed to the residents in Puncak Alam, Selangor and 301 usable questionnaires were collected. The data were analyzed using SPSS and it was found that consumers perceive street food positively in the areas of perceived value, food safety, price, environment, and health consciousness. These results are useful for people who are already in the street food business as well as for those who intend to embark on this business.

KEYWORDS: Street food, Consumers’ perception, Malaysia

INTRODUCTION
By definition street food is food sold at the streets with low time preparation and served to customers in form of packaged for take away (Deivanai, 2016). Street food is a common feature of most towns and cities in many developing countries (Alimi, 2016). With its affordable price, easy access, variety of choices and convenience street food has been growing in demand (Trafialek, Drosinos, & Kolanowski, 2017, Singh, Dudeja, Kaushal, & Mukherji, 2016, Choi et al., 2013). Street food has always been popular in Malaysia. With the change of lifestyle and heavier responsibilities from society, work and family, Malaysian often look for other meal alternatives rather than home-cooked food. This contributes to making the already popular street food even more popular (Ismail, Chik, Muhammad, & Yusoff, 2016, Fransisca du Plessis, 2015). However due to its popular and lucrative nature street food is a competitive business as it attracts many vendors to enter the market. Maintaining the current customers and creating new customers become a constant challenge for many street food operators (Bakar & Farinda, 2012). Street food vendors need to know their customers well in order to come up with a strategy to gain competitive advantage (Sun et al.,
Understanding customer’s perception towards the various critical areas of street food operation can help increase the chance of success in such a competitive market. The aim of this study is to investigate consumers’ perception towards street food. The research findings can help get ready those who are interested to start a street food business as well as to help those who are already in the business better understand their customers.

CONSUMERS’ PERCEPTION TOWARDS STREET FOOD

One of the main reasons for the increasing purchasing of street food among consumers is the perceived value. Perceived value can be described as the overall assessment of what is received and what is given (Li & Green, 2011). It is a gap between consumer perceived benefits (quality) and perceived costs, both monetary (price) and non-monetary (time, effort) (Phan & Mai, 2016). Maskeliusnas & Damasericious, 2018; Bassey, 2014; Muturi, Wadawi & Owino, 2014). For street food this value include the affordable price consumers pay for the large portion, the quality food and service they get for the price they pay as well as the time and effort in obtaining the food (Phan & Mai, 2016).

Most consumers who eat street food are dependent on the food vendors who cook and prepare food for them in which their hygienic implementations affect them directly (Calopes et al., 2017). However due to the limited accessible facilities of street food operation consumers perceive street food of being high food safety risk. The inadequate food storage, mediocre personal hygiene, cross-contaminating between raw and processed food, improper procedures of heating and reheating of food, cooking food inappropriately, allowing food to experience too much exposure without covering it, utilization of food additives, and banned hazardous chemicals, and selling expired products are just some of the main perceived street food safety risks of consumers (Mahiranissa & Hudrasyah, 2015; Monney, Agyei & Owusu, 2013; Rahman, Arif, Bakar & Tambi, 2012).

When consumer purchase a product, price is considered one of the main components in which it has a large impact on purchase intention (Omar, Juhdi, Ahmad & Nazri, 2014; Nguyen & Gizaw, 2014; Mohamad, Rusdi & Hashim, 2014). Consumer’s intention to acquire a particular product may be affected by how they perceive a certain price of either being high or low. In addition, consumers normally observe and compare the price paid by other consumers as well as the priced charged by other food vendors to ensure fairness is applied among them as fairness affects consumer’s perception and ultimately influences purchase intention (Razak, Nirwanto & Triatmanto, 2016; Lee, 2012).

The physical environment is one of the first impressions encountered on an establishment by consumers. Physical environment has been found to influence consumer’s perceived quality of an establishment (Boo, 2017; Githiri, 2016; Omar et al., 2014). Tangible elements such as signs, symbols and décor, as well as intangible elements such as lighting, music, temperature and scent can all help bring consumers’ experiences to another level (Ivkov, Blesic, Stefanovic & Raljić, 2014). In addition to expecting the satisfaction, pleasure and excitement brought about by positive environment of the street food operation consumers perceive the condition behind the preparation area is import as the easily visible front part of the operation (Bhakar, 2017; Emmanuel Nondzor, 2015).

Though convenient, time-saving and economical street food is perceived as a less healthy food choice. Many consumers are concerned that, with its high level of fat, salt and usually high in calories, consuming too much street food might cause heart disease, diabetes and obesity (Musaiger, 2014). As consumer’s demand for healthy food is growing street food vendors which provide healthy food options receive enriched consumer perceived value, perceived evaluation, satisfaction as well as experience regarding the food (Fransica du Plessis, 2015).

Unlike other established cities such as Kuala Lumpur and Shah Alam where the street food market is already saturated, Puncak Alam as a newly developed city presents many opportunities to those who want to start up a business as street food vendor as well as those who are already operating. This study intends to help provide better understanding on consumer’s perception towards street food in Puncak Alam.
METHODOLOGY
A descriptive research design using a quantitative approach through cross-sectional study was employed to identify consumer’s perception toward street food. This study uses quantitative method as it emphasizes on objective measurements and also because the study uses statistical analysis to derive the data that will be collected through the distribution of questionnaires. A cross-sectional survey is conducted among consumers in Puncak Alam, Selangor area. For this survey, it focuses on consumers that purchase street foods in that particular area and it is personal-administered questionnaire.

POPULATION AND SAMPLE SIZE
The people living around Puncak Alam areas will be the population for this study whereas the consumers who eat out as the sample. Puncak Alam is a township in the Ijok community of Kuala Selangor constituency in Selangor, Malaysia. According to the District Council of Kuala Selangor (2018), the populations of Puncak Alam areas is around 25,000 people. Based on the population, the chosen number of sample size is determined according Krejcie and Morgan (1970) table. Hence, the sample size of this study is around 384 respondents. This study distributed the questionnaire to 384 people from the population and the questionnaires were dispersed to the samples in a month.

INSTRUMENTATION
A questionnaire was developed based on relevant literature (Phan & Mai, 2016; Samapundo, Cam Thanh, Xhaferi, & Devlieghere, 2016; Emmanuel Nondzor, 2015). There are three sections in the questionnaire: Consumer’s Perceptions, Consumer’s Profile and Demographic. Five-likert scale was used, from strongly disagree to strongly agree, for the perception. Items for consumer profile and demographic are nominal. Pre-test was conducted to ensure validity and reliability was achieved before the real survey is done.

DATA COLLECTION
This study targeted consumers in Puncak Alam, Selangor who have purchased street food before. Convenience sampling was adapted to collect data through self-administered questionnaire survey. Data collection took about a month and a total of 384 respondents took part in the survey. However only 301 answered questionnaires were valid and usable.

DATA ANALYSIS
SPSS version 20.0 was used to run descriptive statistics analyses on respondents’ perception, profile and demographics.

FINDINGS
DEMOGRAPHICS OF RESPONDENTS
The majority of the respondents are male 52.8% compared to female 47.2%. The percentage of responses is the highest for the age group of 18-25 years old 36.2%, followed by 26 - 35 years old 27.6%, 36 - 45 years old 23.6%, and 46 - 55 years old 11.3%. The least percentage of response are for the age group of 56 - 65 years old 1.0%, and that of below 18 years old 0.3%. Based on the data collected, most of the respondents are single 56.1%, which is more than half of the sample whereas the married respondents are 41.2% and widow or divorced respondents are only 2.7%. In term of personal income, 31.9% of the respondents earn above RM 3,000, followed by those who earn less than RM 1,000 28.6%, RM 2,001 - RM 3,000 27.2%, and RM 1,000 - RM 2,000 12.3%. The respondents mainly have the education level of College or University 61.5%, and the rest are at the level of Secondary School 37.5%, and Primary School 1%. As for profession, 30.6% of the respondents are from Government sector, followed by 27.2% students, and 24.6% Private sector, 15.6% self-employed and the least are 2% unemployed respondents.
CONSUMERS’ PROFILE

The majority of the responses received are from consumers who have purchased street food before 99.3% compare to those respondents who have never purchased street food, 0.7%. The survey results show that most of the respondents get to know about street foods by passing by the food stall 84.7%, followed by recommendation 52.5%, social media 37.9%, and advertisement 23.6%. In term of frequency of street food purchase, most of the respondents purchase street food twice a week 39.9%, followed by once a week 28.9%, more than 3 times a week 15.6%, and once a month 12.6%. As for the time of the day to consume street food, most of the respondents consume street food in the evening 58.8%, followed by at night 46.5%, in the morning 29.2%, and in the afternoon 25.6%. The highest percentage of respondents claim to buy street foods in a group of 2, 41.5%, followed by in a group of 3, 33.6%, alone 13.3%, and in a group of more than 3, 11.6%.

The reason for most respondents to buy street foods is due to variety of food 74.8%, followed by convenience 64.8%, cheap price 62.1% and taste 55.8%. Based on the collected data, the reasons why people do not buy street foods are mostly because the food is not healthy 81.7%, followed by the individual prefers home cooked food 61.5%, the food is too foreign 43.9%, the food is expensive 34.6%, and the environment is dirty 1.8%. For the amount of money spent on street foods per person per visit, most respondents spend RM 5.00 - RM 10.00 47.2%, followed by RM 11.00 - RM 15.00 34.2%, less than RM 5.00 12.6% and above RM 15.00 6%. Lastly, in term of meal the respondents usually buy street food for, most of the respondents buy food for dinner 40.5%, followed by snacks 32.2%, lunch 14%, and the least is for breakfast 13.3%.
<table>
<thead>
<tr>
<th>Items</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever purchased street foods?</td>
<td>Yes</td>
<td>299</td>
<td>99.3%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>2</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

| *How do you get to know about the street foods? | Advertisement | 71 | 23.6% |
|                                               | Recommendation | 158 | 52.5% |
|                                               | Social Medias  | 114 | 37.9% |
|                                               | Passed by the food stall | 255 | 84.7% |

| How often do you buy street foods?          | Once a month | 38 | 12.6% |
|                                           | Once a week  | 87 | 28.9% |
|                                           | Twice a week | 120 | 39.9% |
|                                           | More than 3 time a week | 47 | 15.6% |
|                                           | when i craving for some food | 1 | 0.3% |
|                                           | Depending on situation | 1 | 0.3% |
|                                           | when i feel like eating street food | 1 | 0.3% |
|                                           | Don't have specific time | 1 | 0.3% |
|                                           | Seldom       | 1 | 0.3% |
|                                           | Twice a month | 1 | 0.3% |
|                                           | When too busy only | 1 | 0.3% |

| *What time of the day do you normally consume street food? | Morning | 88 | 29.2% |
|                                                            | Afternoon | 77 | 25.6% |
|                                                            | Evening   | 177 | 58.8% |
|                                                            | Night     | 140 | 46.5% |

| I usually buy street foods                          | Alone     | 40 | 13.3% |
|                                                   | In a group of 2 | 125 | 41.5% |
|                                                   | In a group of 3 | 101 | 33.6% |
|                                                   | In a group more than 3 | 35 | 11.6% |

| *Your reasons for buying street foods              | Cheap     | 187 | 62.1% |
|                                                   | Convenient | 195 | 64.8% |
|                                                   | Variety of food | 225 | 74.8% |
|                                                   | Tasty food  | 168 | 55.8% |

| *Reasons for people who do not buy street food     | Not healthy | 246 | 81.7% |
|                                                   | Expensive   | 104 | 34.6% |
|                                                   | Too foreign | 132 | 43.9% |
|                                                   | I prefer home-cooked food | 185 | 61.5% |
|                                                   | Dirty environment | 6 | 1.8% |

| The amount spent on street foods per person per visit | Less than RM 5.00 | 38 | 12.6% |
|                                                      | RM 5.00 - RM 10.00 | 142 | 47.2% |
|                                                      | RM 11.00 - RM 15.00 | 103 | 34.2% |
PERCEPTION TOWARDS PERCEIVED VALUE

Most of the respondents prefer to purchase street food because it saves them time (M=4.01). The respondents also agree that they prefer to purchase street food because it offers good and fast customer service (M=3.86), and they believe that they receive good quality food with the amount of money they pay (M=3.56). However, the respondents are neutral about purchasing only cheap-priced street food (M=2.94), and they also slightly disagree to purchasing street food because it tastes better than home-cooked food (M=2.43).

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I only buy cheap-priced street food.</td>
<td>2.94</td>
<td>1.194</td>
</tr>
<tr>
<td>I prefer to purchase street food because it saves me time.</td>
<td>4.01</td>
<td>0.821</td>
</tr>
<tr>
<td>I prefer to purchase street food because it offers good and fast customer service.</td>
<td>3.86</td>
<td>0.912</td>
</tr>
<tr>
<td>I prefer to purchase street food because it tastes better than home-cooked food.</td>
<td>2.43</td>
<td>1.143</td>
</tr>
<tr>
<td>I prefer to purchase street food because I believe I receive good quality food with the amount of money I pay.</td>
<td>3.56</td>
<td>0.973</td>
</tr>
</tbody>
</table>

Table 3: The Mean of responses for Perceived Value (N=301)

PERCEPTION TOWARDS FOOD SAFETY

From the collected data, it shows that the respondents agree to be concerned with the quality and safety of street food (M=4.32), as well as the amount of artificial additives and ingredients in the processing of street food (M=4.11). However, the respondents neither agree nor disagree that street food is safe because it has been fried and processed thoroughly (M=3.03).

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am concerned with the quality and safety of street food.</td>
<td>4.32</td>
<td>0.747</td>
</tr>
<tr>
<td>I think street food is safe because it has been fried and processed thoroughly.</td>
<td>3.03</td>
<td>1.048</td>
</tr>
<tr>
<td>I am concerned about the amount of artificial additives and ingredients in the processing of street food.</td>
<td>4.11</td>
<td>0.942</td>
</tr>
</tbody>
</table>

Table 4: The Mean of responses for Food Safety (N=301)

PERCEPTION TOWARDS PRICE

Most of the respondents agree that price is their first consideration when going to buy street food (M=3.85). The respondents also agree that they compare prices of the street foods before buying (M=3.83). Moreover, the respondents think the price of the street food nowadays is affordable (M=3.74), and cheaper-priced foods may lead to low quality of food and higher health risks (M=3.50).
My first consideration when going to buy street food is the price.  
I think the price of street food nowadays is affordable.  
I compare prices of the street foods before buying.  
I think cheaper-priced foods may lead to low quality of food and higher health risks.

Table 5: The Mean of responses for Price (N=301)

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>My first consideration when going to buy street food is the price.</td>
<td>3.85</td>
<td>1.106</td>
</tr>
<tr>
<td>I think the price of street food nowadays is affordable.</td>
<td>3.74</td>
<td>0.926</td>
</tr>
<tr>
<td>I compare prices of the street foods before buying.</td>
<td>3.83</td>
<td>1.048</td>
</tr>
<tr>
<td>I think cheaper-priced foods may lead to low quality of food and</td>
<td>3.50</td>
<td>1.290</td>
</tr>
<tr>
<td>higher health risks.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PERCEPTION TOWARDS ENVIRONMENT

The survey results show that the respondents strongly prefer to buy street food with clean environment around the stall and far from rubbish, waste water, toilet facilities, open drains and animals (M=4.59), as well as to buy food at a clean condition food stall (M=4.58). Apart from that, the respondents agree that they prefer to buy street food with access to potable water at the site or close to the site (M=4.38), and prefer to buy street food with adequate waste water or food disposal facilities available (M=4.37).

Table 6: The Mean of responses for Environment (N=301)

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I prefer buying food at a clean food stall.</td>
<td>4.58</td>
<td>0.598</td>
</tr>
<tr>
<td>I prefer to buy street food with access to potable water at the</td>
<td>4.38</td>
<td>0.767</td>
</tr>
<tr>
<td>site or close to the site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I prefer to buy street food with adequate waste water or food</td>
<td>4.37</td>
<td>0.784</td>
</tr>
<tr>
<td>disposal facilities available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I prefer to buy street food with clean environment around the</td>
<td>4.59</td>
<td>0.602</td>
</tr>
<tr>
<td>stall and far from rubbish, waste water, toilet facilities, open</td>
<td></td>
<td></td>
</tr>
<tr>
<td>drains and animals.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PERCEPTION TOWARDS HEALTH CONSCIOUSNESS

Looking at the mean score, most respondents are concerned about their health status when purchasing street food (M=4.13) and they are aware that eating street food excessively would be harmful to their health (M=3.88). In addition, the respondents basically prefer street food containing less fat and more vegetables (M=3.66). However, the respondents are neutral about street food providing enough energy and being as healthy as any other foods (M=3.04).

Table 7: The Mean of responses for Health Consciousness (N=301)

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am concerned about my health status when purchasing street food.</td>
<td>4.13</td>
<td>0.943</td>
</tr>
<tr>
<td>I am aware that eating street food excessively would be harmful to</td>
<td>3.88</td>
<td>1.064</td>
</tr>
<tr>
<td>health.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I prefer street food containing less fat and more vegetables.</td>
<td>3.66</td>
<td>1.154</td>
</tr>
<tr>
<td>I do think street food provides enough energy and is as healthy as any other foods.</td>
<td>3.04</td>
<td>1.110</td>
</tr>
</tbody>
</table>

INTENTION OF REPURCHASE

Consumers agree they will continue to buy street food (M=4.06) at least once a week (M=3.52) and are willing to recommend their family and friends to purchase street food (M=3.65), and they will at least buy street food at least once a week (M=3.52). However, consumers disagree that they intend to increase the frequency of purchasing street food (M=2.74).
DISCUSSION AND CONCLUSION

The results of this study basically are in support of those from the previous studies. For the perceived value, consumers prefer the street food which has positive perceived value such as good and fast service, tasty quality food, and sold at lesser price. As for food safety, consumers basically perceive street food as safe for consumption. However, their main concern is about the amount of artificial additives and the quality of ingredients used in preparing the food. When it comes to price consumers do consider and compare price before buying street food though they perceive street food price as affordable. However, it is important to note that consumers do not perceive price as an indicator of food quality and disagree that they would buy street food simply because it is cheap. As for environment, consumers have positive perception towards street food with clean environment, as well as with access to potable water at the site or close to the site and with adequate waste water or food disposal facilities available. Finally, as regard to health consciousness consumers are concerned about their health status when purchasing street food and perceive street food as harmful if taken excessively. Consumers perceive more positively towards street food containing less fat and more vegetables.

The findings of this research are beneficial to those who want to start up a street food business as well as those who are already operating. Though consumers agree that they would continue to buy street food and would recommend street food to family and friends they don’t seem to have the intention of increasing the purchase of street food. With these study results, street food vendors can design new strategies to increase purchase and revisitation, which will in turn assist in increasing profits. It is important to know that street food is perceived as affordable, convenient, fast service, and with variety of food choices. However, consumers do not see fast food as a healthy food choice and are not very confident about the cleanliness and hygiene level of street food operation. In order to succeed and be sustainable in such a competitive market, street food vendors must ensure good and fast service, quality food with reasonable price, and clean and hygienic environment. There are also opportunities for street food operators who would like to venture into healthy menu and food with home-cooked taste.

LIMITATION OF THE STUDY

There have been a few limitations during the process of conducting this research. Firstly, the sample was taken only from Puncak Alam, which is only part the Selangor state in Malaysia, therefore the study results might not be able to represent the whole Malaysia. The respondents of this study are aged 18 and above which exclude the teenagers, specifically, the age group of 13 to 18 years old. Teenage consumers are also very fond of street food. They may provide information with different perception towards street food. And due to the descriptive nature of this study, the information gathered is only on consumers’ perception and their intention of repurchase and recommendation. How perception might influence consumer’s behavioural intention is not investigated.

RECOMMENDATIONS FOR FUTURE RESEARCH

There is some possible future research that can be explored in relation to this topic. Further studies can be conducted to cover different areas and cities in Malaysia to provide more accurate insights on consumer’s perception towards street foods. It is also recommended that future researchers focus their studies on certain demographic group, such as teenagers, college students, office workers, international tourists, etc. Street food vendors with specific target customers would benefit from these study results. Correlation or causal studies can be carried out to examine the relationship between perception and behavioural intention. These studies can provide more in-depth and detailed explanation on how consumers’ perceptions towards the different areas of street food operation might influence their behavioural intention. With this information, street food operators would be able to develop effective strategies to motivate consumers to repurchase, to increase their purchase frequency and to recommend street food. The future research should also
explore other dimensions that may have significant effect on consumers' behavioural intentions.

ACKNOWLEDGEMENT

Appreciation to Ihsan Hisham b. Badrul Hisham and Brayner Senang anak Stap for their significant contribution to the completion of this study.

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BIOMORPHOLOGICAL FEATURES OF THE MEDICINAL PLANT ECHINACEAE PURPUREA (L.) MOENCH IN THE SYRDARYA REGION OF THE REPUBLIC OF UZBEKISTAN

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ABSTRACT
The article presents data on the biology and morphology of Echinacea purpurea in the conditions of the Mirzachul oasis. The research results show the optimal growth and development of the species, which confirms the full harvesting of raw materials in the territories of the Syr Darya region.

KEY WORDS: medicinal plants, purple echination, growth and development, leaves, flowers, crop.

DISCUSSION
To date, about 500 thousand plants are known in the world, 5% of them are medicinal plants with pharmacological activity. Today, 80% of existing pharmacological preparations are obtained from medicinal plants, but the raw materials of most plant species are insufficient. On this basis, the identification of resources of promising medicinal species to provide the pharmaceutical industry with plant raw materials and the development of methods for their cultivation are of great scientific and practical importance.

Currently, herbal medicines are very widely used in world practice. Biologically active substances and extracts of plant origin are most popular in such developed countries as Japan, France, Germany, Italy. In many developing Asian countries (India, Sri Lanka, Mali), herbal medicines are of paramount importance. In connection with the growing need to obtain medicines from plants, there is an urgent need for cultivation of many species, especially when you consider that the collection of raw materials from wild plants is often not profitable for economic reasons. There is a need for industrial production of medicinal plant materials [1]. The problem of increasing the human body's immunity to various diseases is one of the most acute today. Work is underway to identify plants with immunomodulatory and antiviral properties.

One of these plants is Echinacea purpurea, known to many flower growers [2]. Echinacea purpurea - one of the many beautiful plants that came to us from the North American continent about 300 years ago, occupies a special place in the gardens of Europe. Americans call Echinacea purpleconeflower, which translates as "purple flower - bump" [3]. For the first time, the American experience of H.K. Meyer back in 1870, the Aborigines used the plant literally against all misfortunes - from the common cold to the bite of snakes. From the end of the 18th century, Echinacea was already included in the US Pharmacopoeia, and in the late 19th and early 20th centuries, has become the most popular medicinal plant in this country. The birthplace of Echinacea purpurea is North America. The Indians gave this plant the name "Gift of the Prairie" because of its healing properties. This perennial herbaceous, beautifully flowering plant is bred in gardens in the southern and middle stripes of the European part of Russia. Its main crops are located at VILAR zonal stations: the North Caucasus, Samara and Belgorod regions.

It is especially important that the positive effect of treatment with echinacea drugs is observed in metabolic disorders and when toxic chemical compounds affect the body, ionizing radiation, the effects of ultraviolet rays, strong chemotherapy drugs, and long-term use of antibiotics. In extreme situations, Echinacea clearly shows the properties of the adaptogen. Echinacea is an excellent honey plant with high sugar productivity.
According to this indicator, it is equivalent to buckwheat [4, 5]. The most complete realization of the bioclimatic potential of a culture is achieved only if such technological methods of cultivation are applied that most correspond to its biological characteristics. The main criteria for assessing the biological characteristics of medicinal herbs is the study of the characteristics of the germination of plant seeds during introduction. But so far there is no developed scientifically based technology for the cultivation of this valuable medicinal plant in the Republic of Uzbekistan. Therefore, the aim of the research was to study the biomorphological features of Echinacea purpurea in the conditions of the Mirzachul oasis. The research was conducted in 2017-2019, in the irrigated territories of the Syrdarya region of Uzbekistan. The results show that in the first and second years of growth and development in the Mirzachulia condition, the average height of the plant stalk is from 90 to 160 cm. It has a stem root that develops into a short rhizome with numerous thin roots. Basal leaves on long stalks, green, large (20-28 by 10-16 cm), with five main protruding veins, stiff, rough, oblong-ovate with a long tip, form a large rosette. Stem leaves are rare, smaller than basal, oblong-ovate or lanceolate, sessile or almost sessile with three main veins. On the outside - rough, bare or diffused-shorthaired, light green with anthocyanins in the coloration of the lower part and hypocotyl, simple and branched. Generative shoots 3-7. All shoots and branches end in inflorescences of different sizes or their buds. Inflorescences are single baskets, large 10-15 cm. Petals are narrow, 2-5 cm long, bent down and have a pink color in mass, ranging from raspberry to dull pink. Numerous median tubular yellowish-purple flowers up to 4 mm in size are located on the receptacle, which from a flat becomes very convex. In the first year of vegetation (year of sowing) 4% blooms, in the second year -100% of plants. The period from the beginning of the growing season to the beginning of flowering is 60-85 days and flowering is long and lasts 60-70 days from July to October. Fruits - brownish-gray, achenes of a tetrahedral inverse pyramidal shape, narrowed at the base. The mass of 1000 seeds is 4.5-5 g. In the first year of life after sowing, seedlings appear in 10-20 days. The early seedlings contribute to the presence of moisture and heat in the soil, the absence of soil surface crust. After another two weeks, the intensive formation of a leaf rosette begins and in this phase most plants leave for their first winter. During spring sowing, 3-5% of plants develop in the spring type. They bloom in late August-September, but before the end of the growing season do not have time to form full seeds. In August, wintering buds begin to form on the rhizomes. Before going to winter, the height of the main tier of annual plants is 30-45 cm. In the second and subsequent years of life, spring regrowth of plants is observed on March 22-27, stem (appearance of generative stems) - on May 12-21, budding - on June 5-15, the beginning flowering - July 6-15, harvest ripeness of seeds - September 15-30. Slow flowering continues until winter frosts, which begin in late September and October. Flowers are actively visited by bees, butterflies and other insects. Seeds ripen only in the first inflorescences. The raw phase (harvesting the entire plant for medicinal raw materials) occurs at the end of mass flowering. In plants of the second year of life during this period, the maximum yield and the best ratio of the total mass and its quality are noted.

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DEFINITION OF GENERATION-RECOMBINATION CHARACTERISTICS OF THE INTERFACE OF THE SEMICONDUCTOR - GLASS ISOTHERMAL RELAXATION CAPACITY

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ABSTRACT

In this work, we propose a method for determining the rate of bulk and surface generation in the semiconductor-insulator interface.

This method allows you to determine the generation and recombination characteristics of the semiconductor-insulator interface from the measured values of the relaxation non-equilibrium capacitance in various modes (switching voltage, temperature). Using this technique, the most probable cause of the time dependence of $S(t)$ in MIS structures was established.

KEYWORDS: Metal-insulator-semiconductor (MDS) structures, generation-recombination characteristics, isothermal relaxation capacity, state density, surface conductivity, bulk and surface generation, n-type silicon.

INTRODUCTION

As is known, to determine the generation-recombination characteristics of interfaces semiconductor-insulator most commonly used method of isothermal relaxation of the capacitance of metal-insulator-semiconductor (MDS) structures, based on measurement of the speed of formation of the inversion layer [1]. In [2,3] this method is modified to determine the generation parameters of the interface semiconductor - insulator. In this paper, the method of determining the velocity of bulk and surface generation at the section boundaries, the semiconductor is n-type silicon with a crystallographic orientation of $<100>$ Si and lead-Boro-glass Silikatny. Also, based on this methodology, we experimentally study the relaxation of dependence of capacity from time $C(t)$ at different temperatures When applied to structures of metal-insulator-semiconductor voltage corresponding to the inversion of the surface conductivity, the capacity of the structure relaxes in time from its initial, non-equilibrium to the final equilibrium state. This relaxation process is due to the formation of charge of inversion-layer - charge of minority carriers, localized at the interface semiconductor-insulator. The energy
diagram of the structure at some time \( t \) after the beginning of relaxation, the application of the pulse, shifting the structure of provision of flat zones in the inversion shown in figure -1.

MATERIALS AND METHODS

Change the width of a region of non-equilibrium depletion relaxation and capacity caused by generation of electron-hole pairs in space charge region (SCR) and at the interface (G), as well as diffusion of carriers from the bulk. Minority carriers (holes) flowing to the surface, forming the inversion layer, and screening the external field. The major carriers (electrons) flow to the edge of the SCR, neutralizing the charge depletion region \( Q_d = qN_d W(t) \) and reducing the width of the SCR \( W \).

![Figure 1](image)

**Fig. 1. The model of the energy band diagrams of the structure of the MDS, indicating the energy field of rechargeable surface States when applying the pulse voltage**

The overall condition of electro - neutrality is:

\[
Q_g = -(Q_s + Q_{ss} + Q_f) = C_d U
\]  

Where \( Q_s \) - the charge of the SCR; \( Q_{ss} \) is the charge in surface States; \( Q_f \) - a fixed charge in the dielectric; \( C_d \) is the capacitance of the dielectric; and \( U \) - is the voltage applied to the MDS structure;

or according to [4]

\[
Q_g = \left[ \Delta Q_{ss}(t) + Q_p(t) \right] + qN_d W(t) + \left[ Q_f + Q_{wa} \right] = -C_d U
\]  

where \( Q_{wa} \) - charge in the surface traps.

Note that the last term \([Q_f + Q_{wa}]\) does not depend on time, and the first member of \([\Delta Q_{ss}(t) + Q_p(t)]\) is the total charge in surface States and inversion layer located in a very thin region at the boundary of the semiconductor-dielectric and changing the accumulation of lasing media. Taking this into account and neglecting the influence of the difference of the work output, we have the following condition for the applied voltage:

\[
V_g = U + V_{o6} = -\frac{1}{C_d} \left[ qN_d W + \frac{qN_d W D^2}{2\varepsilon_0 \varepsilon_s} + \left( \Delta Q_{ss} + Q_p \right) \right]
\]  

Where \( V_{o6} \) the voltage drop across the depletion layer; \( \varepsilon_0 \) - permittivity of vacuum; \( \varepsilon_0 \) - dielectric constant on the surface.

Using the definition \( C_d = \frac{\varepsilon_0 \varepsilon_d}{d_{ox}} \) (\( d_{ox} \) - thickness) and denoting the total charge \( \Delta Q_{wa}(t) + Q_p(t) \) by \( Q(t) \), from the last equality we get:

\[
Q(t) = -C_d V_g \left( \frac{qN_d W}{C_d} + \frac{\varepsilon_0 \varepsilon_d W^2}{2 \varepsilon_s d_{ox}} \right)
\]  

Because the. with non - equilibrium depletion, the high-frequency (HF) capacitance of the MIS structure \( C(t) \) is related to the depletion width \( W(t) \) by the ratio:
\[ \frac{1}{C} = \frac{1}{C_d} + \frac{1}{C_{ob}} = \frac{1}{C_d} + \frac{W}{\varepsilon_0 \varepsilon_s} \]  

(5)

where \( C \) is the capacity of the structure; \( C_{ob} \) - the capacity of the depleted layer.

Then relation (4) takes the form

\[ Q(t) = -C_d \frac{dQ(t)}{dt} - \frac{qN_d \varepsilon_0 \varepsilon_s}{2C_d} \left( \frac{C_d}{C(t)} \right)^2 - 1 \]

Differentiating (6) and taking into account that the rate of change of charge \( (Q(t)) \) is the total rate of its generation \( G(t) \), we obtain:

\[ G(t) = \frac{dQ(t)}{dt} - \frac{qN_d \varepsilon_0 \varepsilon_s}{2C_d} \left( \frac{C_d}{C(t)} \right)^2 \frac{dC(t)}{dt} = \frac{qN_d \varepsilon_0 \varepsilon_s C_d}{(C(t))^3} \frac{dC(t)}{dt} \]

(7)

Thus, the total rate of charge generation in the inversion layer of the SCR and on surface states, according to (7), can be determined experimentally in two ways. For example, to calculate \( G(t) \) at an arbitrary time moment, it is necessary to measure the effective RF capacitance of the structure \( C(t) \) corresponding to this moment and determine at this point the slope of the relaxation curve \( \frac{dC(t)}{dt} \) (by graphical differentiation). Another way is to rebuild the relaxation curve \( C(t) \) in the coordinates \( \left( \frac{C_d}{C(t)} \right)^2 = f(t) \) and graphically differentiate the resulting dependence.

The term «pace» of surface generation-recombination \( R_s \) is understood to mean the number of generation-recombination events per unit surface per unit time [4]. However, it turned out to be more convenient to characterize the processes of recombination and generation on the surface, by the value of the surface generation-recombination rate \( S_{gr} \), which under the condition \( \Delta n = \Delta p \) \( (\Delta n = n_{n0} \) and \( \Delta p = p_{p0} \) is the concentration of excess charge carriers) can be introduced in stationary conditions through the rate of surface recombination \( R_s \) and the non-equilibrium concentration of charge carriers \( \Delta n \) and \( \Delta p \) on the surface (at \( x = 0 \)) by the following relationships:

\[ R_s = S_{gr} \cdot \Delta p \bigg|_{x=0} = S_{gr} \cdot \Delta n \bigg|_{x=0} \]

(8)

If the concentration of excess carriers \( \Delta n \) and \( \Delta p \) are equal to each other, \( \Delta n = \Delta p \), i.e. Since there is no capture process in the volume, we can talk about a single recombination lifetime \( \tau_r \):

\[ R_n = R_p = \frac{\Delta n}{\tau_r} = \frac{\Delta p}{\tau_r} \]

(9)

Consider a discrete (monoenergetic) surface level with a concentration of \( N_s \) and an energy position \( \varepsilon_s \). According to the generally accepted theory of generation-recombination, the resulting rate of surface recombination can be written as [4]:

\[ R_s = \frac{\alpha_n \alpha_p N_{1s} (n_s p_s - n_{1s} p_{1s})}{\alpha_n (n_s + n_{1s}) + \alpha_p (p_s + p_{1s})} \]

(10)

where \( n_s > n_{1s} \), \( p_{1s} = n_{2s} \), and the capture coefficients \( \alpha_n \) and \( \alpha_p \) are expressed by the relations

\[ \alpha_n = \sigma_n \Phi_n \] , \[ \alpha_p = \sigma_p \Phi_p \]

(11)

where \( \sigma_n \) and \( \sigma_p \) are the capture cross sections of electrons and holes, \( \Phi_n \) and \( \Phi_p \) are the thermal velocities of electrons and holes.

Similarly expressed is the rate of surface generation.
The total flux \( G \) into the surface layer of the SCR semiconductor is equal to the sum of the rates of thermal generation

\[
G = \frac{\alpha_n \Delta p_N n_{ts} (n_i^2 - n_i p_s)}{\alpha_n (n_s + n_{ts}) + \alpha_p (p_s + p_{1s})}
\]

where \( n_s, p_s, n_{ts}, \) and \( p_{1s} \) are the equilibrium concentrations of electrons and holes in the semiconductor. In contrast to generation-recombination through surface levels, here the dimension \( N_s \) is [cm\(^{-2}\)], and in contrast to generation- recombination in volume due to bending of zones in the SCR, the concentrations \( n(x) \) and \( p(x) \) depend on the coordinate.

The total flux into the surface layer of the SCR semiconductor is equal to the sum of the rates of thermal generation

\[
G_s = \frac{\alpha_n \Delta p_N n_{ts} n_i^2}{\alpha_n n_{ts} + \alpha_p (p_s + p_{1s})} = n_i S_g
\]

where the \( S_g \) value is introduced, which has a dimension of cm/s, it is called the surface generation rate and is defined as

\[
S_g = \frac{\alpha_n \alpha_p N_{ts} n_i}{\alpha_n n_{ts} + \alpha_p (p_s + p_{1s})}
\]

The general expression for the rate of volume recombination in the SCR through monoenergetic levels with concentration \( N_s \), energy position \( \epsilon_s \), and capture coefficients \( \alpha_n = \sigma_n \epsilon_n \), \( \alpha_p = \sigma_p \epsilon_p \) has the form:

\[
R_{\alpha\beta} = \frac{\alpha_n \alpha_p N_s [n(x)n(x)p(x) - n_i^2]}{\alpha_n [n(x) + n_i] + \alpha_p [p(x) + p_i]}
\]

where the quantities \( N_s, \epsilon_s, \) and \( \alpha_n \) are taken independent of the x coordinate, and the product \( n(x)p(x) > n_i^2 \). Accordingly, the volume generation rate is equal to:

\[
G_{\alpha\beta} = \frac{\alpha_n \alpha_p N_s [n_i^2 - n(x)n(x)p(x)]}{\alpha_n [n(x) + n_i] + \alpha_p [p(x) + p_i]}
\]

Relations (11) and (12) are valid under the following conditions:

- Quasi-equilibrium energy and electron distribution of holes and holes in allowed zones. With a non-equilibrium distribution, the capture coefficients \( \alpha_n \) and \( \alpha_p \) will no longer be determined by the thermal velocities of electrons \( \upsilon_n \) and holes \( \upsilon_p \).
- Quasi-stationary state of a semiconductor, when the filling of levels is determined by the position of the quasi-Fermi levels of free charge carriers. In this case, the recharging of these levels does not affect the distribution of potentials in the MIS structure, which imposes a restriction on the concentration of these levels

\[
N_{ts} \ll \frac{Q_{\alpha\beta}}{q} = \left( N_n - N_d \right) \cdot W \quad \text{for } t = 0 \tag{13}
\]

\[
N_{ts} \ll \frac{Q_p}{q} \quad \text{for } t \rightarrow \infty \tag{14}
\]

It is obvious that the rate of surface generation up to a certain point (starting from which the SCR becomes close to completely equilibrium) can depend only on the surface concentration of minority carriers.

Thus, for an n-type semiconductor at times not close to equilibrium, we have:

\[
n_i < n_{ts}, \quad n_p < n_i \tag{15}
\]

In connection with this expression for the rate of surface generation (12) will have the form:

\[
G_s = \frac{\alpha_n \Delta p N_{ts} n_i^2}{\alpha_n n_{ts} + \alpha_p (p_s + p_{1s})} = n_i S_g
\]

where the \( S_g \) value is introduced, which has a dimension of cm/s, it is called the surface generation rate and is defined as

\[
S_g = \frac{\alpha_n \alpha_p N_{ts} n_i}{\alpha_n n_{ts} + \alpha_p (p_s + p_{1s})}
\]

The general expression for the rate of volume recombination in the SCR through monoenergetic levels with concentration \( N_s \), energy position \( \epsilon_s \), and capture coefficients \( \alpha_n = \sigma_n \epsilon_n \), \( \alpha_p = \sigma_p \epsilon_p \) has the form:

\[
R_{\alpha\beta} = \frac{\alpha_n \alpha_p N_s [n(x)n(x)p(x) - n_i^2]}{\alpha_n [n(x) + n_i] + \alpha_p [p(x) + p_i]}
\]

where the quantities \( N_s, \epsilon_s, \) and \( \alpha_n \) are taken independent of the x coordinate, and the product \( n(x)p(x) > n_i^2 \). Accordingly, the volume generation rate is equal to:

\[
G_{\alpha\beta} = \frac{\alpha_n \alpha_p N_s [n_i^2 - n(x)n(x)p(x)]}{\alpha_n [n(x) + n_i] + \alpha_p [p(x) + p_i]}
\]
where \( G_i \) is surface generation; \( G_{sk} \) - the full rate of generation of electron-hole pairs in the SCR; \( G_{ak} \) is the generation rate in the regional part of the SCR; \( I_{pd} \) - hole stream; \( W, W_k \) - thickness of the SCR and the edge of the SCR; \( \tau_{go}, \tau_{gw} \) are the generation lifetimes in the volume and in the regional part of the SCR, respectively.

The characteristic features of relation (20) are:
- the linear dependence of \( G \) on the non-equilibrium thickness of the SCR \( W \) in the case of the largest contribution to the generation rate in \( G \) of the SCR from the contact part of the SCR \( (G_i + G_{sk}) \);
- the contribution of \( G_{sk} \) is significant only at the initial moments of the relaxation process (for large \( W \)), because \( G_{sk} \) decreases very strongly with increasing surface concentration of minority carriers \( p_i \);
- the generation rate strongly depends on the temperature, decreases, as a rule, with its decrease proportionally \( \exp\left(-\frac{E_g}{kT}\right) \).

The theory of thermal generation processes in MIS structures [4] gives a general expression for the flow of charge carriers, which includes the parameters of volume and surface generation centers, as well as the characteristics of contact SCRs and the diffusion process. Obviously, if we equate the experimentally determined rate of generation to the total flow of minority carriers into the near-surface layer of SCR:

\[
G(t) = q(G_i + G_{sk} + G_{ak} + I_{pd})
\]

Or

\[
\frac{qN_d\varepsilon_0\varepsilon_s}{C^3(t)} \frac{dC}{dt} = q\left\{n_iS_g + \left(1 - \frac{np}{n_i}\right) \left[\frac{n_iW}{\tau_{go}} + \frac{n_iW_k}{\tau_{gw}}\right] + I_{pd}\right\}
\]

then from the analysis and comparison of experimental and theoretical dependences it is possible to determine the dominant generation mechanisms, as well as evaluate the above generation-recombination parameters.

Consider accounting and separation of surface and volume generation components. The component of the \( I_{pd} \) flow, for example, for silicon-based structures, is usually negligible at room temperature. If we exclude the influence of the contact part of the SCR, then the component of the \( G_{sk} \) flow can also be neglected. Then the task is simplified and reduced to the separation of the generation rates through the surface levels \( G_i(t) \) and through the volume centers in the SCR \( G_o(t) \). The volumetric rate of generation in the SCR can be written as follows:

\[
G_o = \frac{n_i\Delta W(t)}{\tau_{go}} = \frac{n_i[W(t) - W_c]}{\tau_{go}} = \frac{n_i\varepsilon_0\varepsilon_s}{\tau_{go}C_d} \left[\frac{C_{cr}}{C(t)} - 1\right]
\]

where the equilibrium capacitance \( C_{cr} \) and capacitance \( C(t) \) are related by the equilibrium SCR width \( W_c \) and the width \( W(t) \) by relations of the type:

\[
\frac{1}{C} = \frac{1}{C_d} + \frac{1}{C_d} = \frac{1}{C_d} + \frac{W}{\varepsilon_0\varepsilon_s}
\]

Thus, the final result for the total recombination rate in this case has the form:

\[
G(t) = q(G_i + G_o) = -\frac{qN_d\varepsilon_0\varepsilon_s}{2C_d} \frac{d}{dt} \left[\frac{C_d}{C(t)}\right]^2 = qn_iS_g + \frac{qn_i\varepsilon_0\varepsilon_s}{\tau_{go}C_{cr}} \left[\frac{C_{cr}}{C(t)} - 1\right]
\]

or

\[
-\frac{d}{dt} \left[\frac{C_d}{C(t)}\right]^2 = \frac{2C_d}{\varepsilon_0\varepsilon_s} n_iS_g + \frac{2C_d}{C_{cr}N_d\tau_{go}} \left[\frac{C_{cr}}{C(t)} - 1\right]
\]

differentiating expression (26) we obtain
\[ \frac{1}{C^3} \frac{dC}{dt} = \frac{n_i S_g}{q \varepsilon_0 \varepsilon_s N_d C_d} + \frac{n_i}{C_d N_d \tau_g \left( \frac{C_{cr}}{C(t)} - 1 \right)} - \frac{1}{C_{cr}} \] 

(27)

The obtained expression describes the relaxation process of the MIS capacitance of the structure during the formation of the charge of the inversion layer after switching the bias voltage \( V_1 - V_2 \). This equation is a straight line equation in the coordinates:

\[ x = \left( \frac{C_{cr}}{C(t)} - 1 \right) \frac{1}{C_{cr}}, \quad y = \frac{1}{C^3} \frac{dC}{dt} \] 

(28)

I.e. an equation of the form \( y=ax+b \) (Fig. 2).

The surface generation speed \( S_g \) and the lifetime of minority carriers \( \tau_g \) are determined from the slope of the dependence \( a \) and the coefficient \( b \) determining the shift of the dependences along the axis \( \frac{1}{C^3} \frac{dC}{dt} \). The coefficients \( a \) and \( b \) are determined using the least squares method.

**RESULT AND DISCUSSION**

The slope tangent is directly proportional to the lifetime of the main charge carriers in the semiconductor. The segment cut off on the axis "y" with "x" equal to zero allows you to determine the speed of surface generation of charge carriers (Figure 2).

From here:

\[ S_g = \frac{C_d N_d \varepsilon_s \varepsilon_0 b}{n_i} \] 

(29)

\[ \tau_g = \frac{n_i C_d N_d a}{C_{cr}} \] 

(30)

where \( C_d \) is the capacity of the oxide layer, defined as the capacity of the studied structures at enrichment voltages, \( N_d \) is the concentration of the donor impurity, \( \varepsilon_s \) is the dielectric constant of silicon, \( \varepsilon_0 \) is the dielectric constant, \( n_i \) is the intrinsic concentration of charge carriers in Si at a given temperature, and \( a \) is the angle of inclination of the obtained dependencies, \( b \) is the point of their intersection with the axis \( \frac{1}{C^3} \frac{dC}{dt} \).

Thus, this method allows one to determine the generation and recombination characteristics of GR P-D, by measuring the relaxation non-equilibrium capacitance in various modes (different temperature, switching voltage), it is possible to determine the parameters of the generation centers both in the SCR and on the GR P-D.
By measuring the relaxation of the capacitance of the MIS structure (after switching the voltage $V_1 \rightarrow V_2$) at various temperatures, the temperature characteristics of the angle tangent can be used to determine the energy characteristics of the volume generation center in a semiconductor. In other words, according to the temperature dependence of the carrier lifetime, from the relation $\tau_g = \tau_0 \exp \left( \frac{E_g}{kT} \right)$, it is quite simple to find the depth of the energy level $E_g$ through which the generation of charge carriers proceeds. The main parameter characterizing the speed of the structure is the rate of formation of the inversion layer at the semiconductor-insulator interface, with a pulse increase in the voltage applied to the structure. It should be noted that in [5, 6] it is assumed that the surface generation rate (the number of charge carriers generated per unit time by a surface unit) is a constant. It was shown in [7, 8] that, for an adequate description of the relaxation process of the capacitance of a MIS structure, after a pulse increase in the voltage applied to it, it is necessary to take into account the time dependence of the rate of surface generation of charge carriers. The time dependence of the surface generation speed $S(t)$ can be due to the following reasons: the Coulomb interaction of mobile charge carriers in the forming charge of the inversion layer [9], the inhomogeneous distribution of surface charge density over the semiconductor band gap [7], and the presence of a tunneling current between the semiconductor and the dielectric [10][11]. Moreover, it is known that the magnitude of the tunneling current depends little on temperature.

To establish the most probable reason for the time dependence of $S(t)$ in MIS (Al-glass-Si) structures, using expressions (27), we experimentally measured the relaxation dependences of $C(t)$ at various temperatures. Figure 3 shows the experimental relaxation dependences of the capacities of one of the structures under study, constructed in accordance with (27), in the coordinates $1/C^3, dC/dt, (C/C^3 - 1)$. The constructed dependences were measured in the dark, at a frequency of 150 kHz at a temperature of $-20^\circ$C (dependence 1), at a temperature of $-30^\circ$C (dependence 2) and at a temperature of $-40^\circ$C (dependence 3) and at a temperature of $-50^\circ$C (dependence 4), after increasing the voltage applied to the structures, from $V_1$ to $V_2$ ($V_1 = 8V$, $V_2 = 20V$). It can be seen from the above dependences that a change in temperature leads to a change in the slope of the time dependence $S(t)$, without changing it qualitatively.
This behavior of the considered dependences indicates that in the measured structures, in the indicated temperature range and with the applied voltage values, the bulk contribution to the inversion charge formation rate is made by volume and surface generation.

REFERENCES
PEDAGOGICAL APPROACH TO THE USE OF ELECTRONIC EDUCATION IN THE EDUCATIONAL PROCESS

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ABSTRACT

This article deals with e-learning and distance learning technologies, which are now a key part of the educational process, and provides descriptions and research by many scholars around the world. It also covers the use of e-learning in educational institutions and the organization of information and e-learning, including electronic search engines, e-learning resources, telecommunications facilities that are based on the development of curricula and independent learning of students. On the basis of which the main features of e-learning, such as the formation of distance learning, the organization of distance learning in the educational process, the pedagogical bases of distance education, methodological, organizational-management, psycho-pedagogical, pedagogical, research activities of the teacher. As a result of the study, the general educational technologies of the pedagogical process and their basic elements are technologically illuminated on the basis of the schedule. The table shows the types of general education technologies, the results achieved by these types, the level of knowledge of the student, the specific methods of education. In addition, the importance of independent learning in distance learning, its importance in acquiring students’ knowledge, and the importance of modern information technologies in education in the use of pedagogical technologies in e-learning are mentioned. As a result, the role of the teacher in the virtual field will be further enhanced, and the teacher will now be seen not only as a facilitator of learning, but also as a teacher of his or her own learning technology, communicating with students, supervising and evaluating students. This demonstrates the importance of a pedagogical approach to the use of e-learning in the educational process.

KEYWORDS: e-learning, distance learning, distance learning technologies, electronic search engines, e-learning resources, tools for telecommunication, information and e-learning, educational process, distance learning, pedagogical bases of distance learning, organizational-management, psycho-pedagogical, pedagogical, research activity, the process of organization of distance learning, opportunities of distance learning, disadvantages of distance education.
INTRODUCTION

For the introduction of e-learning into the education system, special attention is paid to education information, first of all, taking into account the dependence of the intellectual potential of the society, including information on education, the development of information and educational resources. Development of e-learning, increase of its effectiveness, introduction of new information technologies in education determine the focus of educational reforms.

Based on the foregoing, in this article we will focus on e-learning and distance learning technologies used in the learning process. To do this, we will talk about the concepts of e-learning and distance learning, their importance in the pedagogical process, and the pedagogical nature of distance learning courses organized by teachers. First of all, we will explore the concept of e-learning.

E-learning is defined as the organization of telecommunications networks and the communication of all participants in the learning process, supporting the information stored in the database and used in the development of educational programs, providing transmissions on data processing facilities, and (Bubnov, V.A. [1])

Distance learning technologies are technologies that are implemented using information technology in remote collaboration between students and education systems or educators (Bubnov, VA [1])

A BRIEF ANALYSIS OF OTHER SCHOLARS’ WORKS ON THE SUBJECT

E-learning has been described by professors from leading universities in the world, and we will talk about them. In particular, M.S. Bowles describes e-learning as “the use of the Internet as a learning tool that has led to tremendous changes in society” (used by Bowles, M.S. [5]). However, to date no agreement has been reached on the main content of e-learning.

Gerhard Kasper, former president of Stanford University, said at the time: “I really don't know how Internet education will develop. But I can say with certainty that over the next decades we will see the transition from day-to-day education to online learning” (used by Muller, H. [6]). Professor of the University of San Francisco, USA Clerk and R. Mayer stated that e-learning is defined on the computer as instructions provided by the CD-ROM, Internet, or internet with the following functions, namely, the educational process for the use of multimedia elements, such as words and pictures, for teaching purposes include content; form new knowledge and skills associated with individual learning goals or improvement of organizational performance (used by Clark, R., & Mayer, R. [6]).

In the July 2003 edition of the UK's Ministry of Education's Unified E-Learning Strategy, e-learning states: "If someone is educated using information and communication technologies, it is the use of e-learning." Canadian professors D. Hum and A. Ladouceur, in his work “E-learning the new frontier,” have further clarified e-learning and scientifically justified the use of e-learning to address information and subject matter in all areas of human activity (Hum, D., & Ladouceur, A. [8]). H.S.Schultz and In his work Online Learning Today: Strategies that work, Fogarties described e-learning as “Learning through the Internet” (Schultz, H. S., & Fogarty, J. [9]).

This implies that as a result of the development of information and communication technologies, the role and place of modern pedagogical technologies in all aspects of the educational process, particularly in the field of e-learning and distance learning, is expanding.

SCIENTIFIC NOVELTY OF THE ARTICLE AND METHODS USED IN RESEARCH

It is important that curricula developed for the use of e-learning in educational institutions should be developed based on the learning of curriculum and the organization of e-learning based on technical means such as search engines, e-learning resources and telecommunication technologies.

Taking into account the foregoing, a new trend in the educational process will be developed based on: (Vasiliev, F.P. [2]):

- Promoting distance education, the technological basis of which is information technology and telecommunications;
- Standardize the educational methodology by implementing and distributing electronic forms of illustration and transmission of material.
- In these cases, distance learning technologies play a key role in the new trend of learning.

Distance learning technologies include (Vasiliev, F.P. [2]):
- educational standards of subjects;
- lectures;
- Curricula and instructions for practical and laboratory work, course work;
- methodical instructions and manuals for independent work of students;
- test tasks on subjects;
- control materials;
- links to electronic libraries.

Each of these tasks not only ensures communication between teachers and trainees as a result of the effective use of e-learning tools, but also stimulates the learner to work on his own. Considering that, distance learning is emphasized in the learning process.

Distance learning is one of the main forms of continuous learning.

Considering the above, the process of establishing distance learning can be summarized in Figure 1 below, which I developed in my study of the pedagogical bases of e-learning:
From this, the importance of the pedagogical, professional skills of the teacher, the level of ICT knowledge and distance learning opportunities in integrating distance learning into the learning process.

At the same time, as a result of our research on the introduction of distance learning, we have developed the following pedagogical foundations:

• increasing the pedagogical and professional competence of the teacher in the organization of distance learning;
• sufficient knowledge of the teacher in information and communication technologies;
• development of pedagogical bases of individual teaching methods by students;
• providing continuous communication between students and teachers in the system of distance learning.

Based on the above, teacher education can be divided into two stages:

• Organization of distance learning activities of students.
• Creating of a distance course.

During the distance learning process of the students, the teacher solves several methodological and organizational issues. Communication and technical issues will be addressed during the development of the distance course.

Based on the analysis of the issues to be solved by the teacher, the activities of the teacher in the system of distance learning are shaped by the following signs (Polat E.S.[4]):

• methodical activity – development of methodological support of distance learning (working out the program, model and structure of the distance course; development of theoretical, practical and control-estimative materials of the distance course; Developed models of distance learning on the subject, course,
subject of study, theoretical, practical and control materials of the distance course will be adapted to the level of knowledge of the learner);
• Organizational-management activities – organization of distance learning in the form of lessons and independent learning (development of organizational-management documentation of the distance course; formation of training groups; paper and electronic formats; consultations on the organizational issues of the educational process; creation of information materials, preparation and issuance of certificates (certificates, diplomas, etc.); trainees' participation in the scheduled webinars; remote listening received LMS (Learning Management System), professional associations, forums registration; distance learning at home with a collection of information (feedback); distance learning the technical side of the process of consultation; trained teachers, psychologists, parents or guardians);
• psycho-pedagogical activities – ordering of students' learning activities in distance learning (managing communicative activities of students; adhering to network etiquette; collaborating with course creators, educators, psychologists, parents (or guardians);
• pedagogical activity – distance learning of students, monitoring and evaluation of students;
• research activity – the study of the process and results of distance learning taking into account the acquisition of knowledge and skills of students; assessment of pedagogical activity; participation in conferences, seminars on e-learning, distance learning technologies; study of proposals for approaches to pedagogical technologies of distance learning. 

For each pedagogical process, the sequence and specificity of activities are different. In order to achieve the desired result in the educational process, it is necessary to technologically illuminate the educational process and its interpretation. For the organization of distance learning the pedagogical process should be clearly technological, which can be summarized by the following table:

**Figure 2**

<table>
<thead>
<tr>
<th>Type</th>
<th>Achievement</th>
<th>The level of knowledge</th>
<th>Special ways of education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dogmatic Reproduction</td>
<td>Surface Direction</td>
<td>Recalling</td>
<td>Report</td>
</tr>
<tr>
<td>Official Reproduction</td>
<td>Formal Knowledge</td>
<td>Understanding, reproduction activities</td>
<td>Exhibit</td>
</tr>
<tr>
<td>Important reproductive</td>
<td>skills</td>
<td>Thinking, interpretation of activities</td>
<td>Reproductive, problem solving</td>
</tr>
<tr>
<td>Effective Reproductive</td>
<td>Creative Thinking</td>
<td>Independent Search, Creative Activity</td>
<td>Problem Education</td>
</tr>
<tr>
<td>Thematic Reproductive</td>
<td>Personality</td>
<td>Self-determination and solution of tasks</td>
<td>Solving problems of personal importance</td>
</tr>
</tbody>
</table>

Daytime education is now moving towards the formation of independent education. Currently, modern approaches to the organization of the educational process are built on the students' self-reliance as a result of the lack of information provided by the teachers and greater student performance in the learning process. Collaboration of distance learning with information technologies in the educational process gave impetus to the development of a new form of education e-learning.

Thus, it is no longer about distance learning that differs from day-to-day education with some of its technologies, but rather about e-learning, which is a form of open learning.

The use of pedagogical technologies in e-learning should be adapted to the level of pedagogical processes. Open education is a subject-oriented type of pedagogical process that meets modern social requirements of education. The use of modern technological tools (e-books, forum LMS, automated search for information) for the implementation of reproductive education will lead to the traditional training of e-learning.

Modern e-learning allows for the implementation of open learning approaches in public education:
• not be limited in time;
• a student is a subject in a state of varied learning opportunities with which he / she has to make important decisions;
• purpose – subjectivity and uniqueness of a person in active work.

Course study in the virtual field requires the construction of the learning process on the principle of openness, such as the implementation of the pedagogical process in a subject-oriented manner and provides:
- content (multimedia training material);
- competence of the student;
- a course navigator to help students work on the course (Study guide);
- independent Study Guide (Syllabus);
- tutor function of a teacher.
It should be noted that the role of the teacher in the informatization environment is growing. This means that the teacher should use modern information technology in his or her work. In this case the appearance of his labor will change. Design and construction of educational technology, first of all, creation of didactic information base of the subject, thirdly, communicative organization of teacher's relations with the student, selection of adequate forms and methods of educational activity management, it is necessary to create and create test tasks to control students and to organize student self-control.

The modern stage of educational reform is urging the urgent tasks related to the speed of social change, the faster adaptation of new and higher education institutions.

It is clear from the above that in the system of distance learning, the teacher must create and manage distance learning courses using the specific pedagogical technologies, while studying the psychology of the learner during the methodological, organizational and managerial activities of his work. This will stimulate the interaction between the teacher and the student.

CONCLUSION

Taking into account the above, it is worth noting that distance education is now considered as a new pedagogical factor in the educational process. We are looking for ways to develop e-learning and increase its effectiveness. The introduction of new information technologies in education is at the center of attention in education reform. Therefore, it should be noted that the effectiveness of teachers' self-work is also significantly increased. In general, distance learning is now a requirement of the time, as it is also clear from the above that the learner is a prerequisite for learning and practicing distance learning independently.

As a result of applying e-learning to the educational process, several effective results, which we have considered in our research:
1) students will be able to work and study independently and have sufficient professional skills in their field;
2) expanding the range of independent thinking of students in their specialty, i.e. acquiring both theoretical and practical knowledge as a result of the student independently completing all courses in distance learning;
3) students will have sufficient social and economic benefits.

REFERENCES

THE ROLE OF SOCIAL INSTITUTIONS IN THE REPUBLIC OF UZBEKISTAN IN PREPARING YOUTH FOR CREATING A FAMILY

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ABSTRACT
A family is the most important social institution full-fledged upbringing and socialization of personality. Mother and father is a sample example for the younger generation, because in the future, they will have to perform the same functions and roles in society. The way in which prepare young people for marriage and family, let us examine in this article.

KEYWORDS: family, generation, future, society, marriage

INTRODUCTION
One of the most important values in the countries of Central Asia, including Uzbekistan, is the family. Today, in the era of globalization, in a rapidly developing world, when many traditional values are lost, in Uzbekistan the family is still socially significant.

It is in the family that such high human qualities are formed as respect for elders and love for younger ones, respect for national customs and traditions. She is a reliable stronghold in the development of the spiritual foundations of our life, the establishment in society of an atmosphere of high morality. Its role in the upbringing of a harmoniously developed generation prepared for life's trials is invaluable.

That is why in the republic great attention is paid to family problems. The state programs that have been successfully implemented in recent years, the activities of public organizations, in particular of such a unique institution as the mahalla, aiming to raise the culture of family relations, are aimed at this.

Muslim families, over a long period of time, have developed their own, folk, customs and traditions of great educational value, based on mutual respect, love, fidelity, respect for the traditions of individual culture and religious precepts.

MATERIALS AND METHODS
The family is an educational environment, regardless of the marriage between representatives of the same nationality or different, in the framework of which the worldview, cultural and moral foundations of the life of society are formed and fixed at the everyday level [1]. It is connected by blood and family relationships and contributes primarily to childbirth. What is a modern Uzbek family? What are her views and beliefs, moral principles? What has she preserved from traditional foundations? What modern facets enriched?

Sociological studies show that in it, as a rule, two or three children. At the same time, urban families are more inclined to two, and rural families to three children. Among those who plan the number of children in the family, the dominant is the desire to put them on their feet, to provide optimal conditions for development, so that they take a worthy place in the future in society.

Family, school, university, all these social institutions also, only to varying degrees, have the opportunity to prepare the young generation for family formation and social development, contributing in the future, the conclusion of a strong family-marriage union. The readiness of young people to create a family, first of all, should be formed in a family environment with the participation of parents, relatives and teachers. Family, traditionally remains the leading social institution in the formation and development of socially significant values and attitudes of the teenager, his socialization. The main way of family socialization is to copy the behavior patterns of adult family members by children. In married couples, where constant scandals are observed and rudeness and violence are allowed, conditions are created for the immoral and asocial behavior of parents and their children.
subsequently, negatively affects the behavior of children and youth, as well as the creation and well-being in their own family. Therefore, it is very important to prepare young people for creating a family. And again, the family plays a big role in this, although, as mentioned above, all social institutions perform their functions.

In fact, Muslim marriage has strong roots, divorces are highly discouraged, relatives immediately begin to reconcile the husband and wife, so that the children do not suffer, and that the woman is not left alone. Many examples can be cited where families are preserved only by this principle: Mohizar, 38 years old, told that her relatives introduced her future husband, that is, the couple practically met at the wedding. The addiction was difficult, the characters were different, there were quarrels, disagreements. Over time, children appeared ... Mohizar left the house several times, lived for some time with her parents, but because of her children and the preservation of her family, she got used to it. Now they live, everything seems to be working out, the children grow up, we need to think about them.

Preparing youth for family life is an important state task at the present stage of its development. Priority national projects related to the name of the year: “Year of the family”, “Year of a healthy mother and child”, “Year of a healthy child”, and many others, which emphasize the importance of social support for a young family, large and low-income families, improving the quality of organization educational, educational and therapeutic and preventive work with the population, actualizes the problem of developing socio-pedagogical aspects of the formation of youth’s readiness to create a family and family relations. A huge contribution to strengthening the family and its support in solving various problems making social structures along with government organizations.

In early 1998, the Republican Scientific and Practical Center "Oila" was created under the Women's Committee of Uzbekistan. Moreover, in no other CIS country there are similar structures dealing with the whole range of family problems and supported by the state.

This center cooperates with all state and public organizations dealing with family issues. The results of his research, recommendations and the prepared methodological literature are used by many ministries, including health, labor and social protection of the population, public education, higher and secondary specialized education, and others. He holds many joint events with the Women's Committee, the Soglom Avlod Uchun and Mahalla foundations, and the Yoshlar Itifoki youth movement.

The mahalla institution plays an important role in the development of a healthy and strong family. In particular, the public structure “Parent University”, which operates under the self-government bodies of citizens, last year organized more than 115 thousand interesting events to increase the legal, spiritual, medical knowledge and skills of the population. Several million young men and women across the country participated in projects to prevent early marriage, divorce, and complete coverage of newlyweds with a medical examination.

CONCLUSION

Thus, the preparation of the youth of Uzbekistan for family life is a complex of comprehensive interactions with parents, relatives, teachers, peers and other people, as a result of which there is an awareness of the characteristics of marriage and family relationships, the formation of ideas, views, beliefs, qualities and habits associated with readiness for marriage and family life. But, the willingness to create their own family depends not only on the parental family, the psychological preparedness of youth, but also on the economic development of the country and the forms of assistance and support that are being implemented at the state level.

REFERENCES

SCIENTIFIC DESCRIPTION OF UZBEK REWARDS

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ABSTRACT
Ceremony folklore and its two parts, seasonal rituals and family rituals, are the main source of the identity of each nation. The seasonal and family ritual folklore of the Uzbek people reflects the worldview of the hardworking people regarding their understanding of the world, the role and function of the individual. This article analyzes the study and classification of Uzbek ritual songs.

KEYWORDS: Folklore, ritual folklore, ritual songs, lyrics, classification, description.

INTRODUCTION
In Uzbek, the song is in a broad sense folk poetry and folklore. The basis of the treasure trove of songs consists of high artistic samples. In folklore, as well as in public, poetry is traditional and poetic. For this reason, traditional songs have an exterior meaning, in addition to the photographic meaning, which relates to the ancient beliefs, rituals, and rituals of the people, which modern singer and listener cannot achieve (1, 10).

Ceremonial songs are one of the oldest and most lively forms of folk music. That is why in the ceremonial songs, the lifestyle, ethnic history, customs, beliefs and beliefs of a particular nation are reflected in its originality. Each ritual has its own pronunciations, melodies and chants, a song and a word component together.

The song is a response to social events in life. The song is thought to be the earliest human art form. It is believed that the first song on earth was the mourning for Adam by the death of his son, Abel. Indeed, from the birth of a human, it is heard and weeping when it dies.

The people sang and sang songs in both sad and joyous times. Among the Uzbek people, the words "Burn singer, loved singer" or "Become a favorite singer, die burner" are used as proverbs.

Paul LaFargh emphasizes the historical significance of the songs, saying: "... these songs, like the flower on the branches of a fruit tree, have a high historical significance.

In the emergence and development of folk songs, he has a mythic-poetic vision. The traditional songs are mythological expression.

The emergence and development of folklore has been and continues to be important in repetitive artistic expressions of mythological images (3, 15). But because life is in constant motion, modern songs are being created to reflect the spirit of the new world and its people. As a result, in recent years, new songs, expressing the dreams and experiences of our people, filled with gratitude for independence, began to be heard. The fact that they are created in the spirit of traditional folk songs is an attractive factor. In traditional folk songs, in addition to the external meanings, the listener also has a deep sense of meaning that relates to the historical and mythological worldview of the people, their primitive notions, rituals, customs and beliefs. In this way, they are slightly different from the songs they are currently creating. But when we look at the songs that are currently being created, we see that they are nourished by elements directly related to the past. There is no doubt that this element serves as the foundation of contemporary songs. After all, it is true that people who have no past will not exist tomorrow.

MATERIALS AND METHODS
The song is one of the most common and oldest forms of poetry. Before the creation of writing and the emergence of written literature, there is a song, and poetry in written literature was originally created on this earth.

In the lyrical species of folk poetry, the ancient beliefs, customs, rituals and rituals of the people are preserved to a considerable extent as artistic transitions. In fact, no matter what type of folklore, the researcher tries to study the historical
roots of the genre, he is certainly exposed to traditional impressions, customs, rituals, and mythological mythology. For this reason, all spheres of the art of the peoples of the world, and in particular the folklore, go back to the same ground (1, 12).

As M. Gorky said, "The beginning of art is in folklore." (4,32)

The term "song" is used in two ways: it is in the broadest sense of the poetry of the people, and in the narrow sense it represents the form and genre of the folk song. The terms "Surud", the Karakalpak "Kosyk", the Azerbaijani "United" and the Uyghur "Koshak" are aesthetic. In the book Devonu Lugotit Turk by Mahmud Kashgari there are four:

On the shelf,
Tergur asked me.
The wrecker will heal you,
On tur is a taboo. (14, 357)

Content:
Spoonful woman,
A poem from me.
Your employee,
Go ahead and pay it
1. Ceremonial folk songs or ritual folklore:
Includes seasonal, family-folk and ritual-related songs.
2. Folk songs or non-ceremonial folk songs
and songs belonging to this group also include labor songs, lyrical songs, historical songs, and melodies, which appear in four ways depending on genre form, performance and motives, and social aesthetics. (7, 82)

But in O. Madaev's book "Poetical Creativity of the People" we find a different version of this classification. In other words, the teacher considers it appropriate to classify folk songs into the following types.

1. Labor songs
2. Season - ceremonial songs
3. Lyrical Songs
4. Historical Songs. (8.77)

Songs that are essentially related to the labor process are called labor songs. Labor songs occupy a separate and independent place in the singing repertoire of our nation. The content of the work songs, the genre characteristics determine the types of work and the process of its implementation. Labor songs are played without a specific tone.

Labor is one of the oldest forms of folk poetry. The earliest examples have reached us through Mahmud Kashgari's book Devonu Luqotit Turk. The songs of labor formed and developed in direct relation to the labor activity of the primitive man

According to B.Sarimsakov, the historical development of labor songs took place in three stages:

1. Songs related to farming.
2. Livestock Songs.
3. Crafts related songs. (9.144)

Seasonal songs are associated with winter, spring, summer, and fall. The ritual is an event or gathering held in the form of religious or traditional ceremonies.

"Songs of Nowruz", "Woman", "Tea momo", "Call of rain". Seasonal rituals such as "Calling the Wind", "Stopping the Wind", family songs such as "Yor-Yor", "Olan", "Kelin Salom" and "Martia" are poems that fully meet the requirements of artistic expression.

Another major type of folk songs is lyrical songs. They are distinguished by their high art, traditionality and popularity. The word lyric comes from the name of a musical instrument known as a lyre, and in ancient Greece, harp has been an integral part of religious ceremonies.

Both forms of lyric fiction are literary forms of oral and written art. However, there are also significant differences between them in common (1, 17).

The main content of lyrical songs, which is a popular genre, is the portrayal of love, the spiritual world and inner experiences of the person. Lyric songs are played by one or more people. Frequently such songs appear as independent quartets. The most important thing is that the real reality is reflected through the subjective experiences of the individual (the lyric hero) and created only for singing. Different from the epic poem in terms of artistic expression of the emotion born in the heart of a person through the depiction of certain images and subjects.

Historical songs constitute a separate series of Uzbek folk poetry. The songs in this category are very old, with historical and political events and lyrical-epic interpretations of the activities of real persons. That is why they are used in the historical song. Historical songs, which are largely narrative, are recognized in Uzbek folklore as a distinct genre. Their main contents are historical events, facts and interpretations of the activities of real historical figures, which have left a mark on the life of the people.

The scientific classification of ritual songs is a peculiar nature of the genres that exist, and its role in genres.

Scholarly researches by M. Alawi are included in the monograph "Uzbek folk songs" published in 1974. This monograph describes the role and significance of songs in various ceremonies of Uzbek people. In this monograph, M.Alavia categorizes the songs as follows:

1. Song Lyrics (The Four Seasons)
2. Bytes of love.
1. Seasonal ritual songs;
2. Labor songs;
3. Songs related to the seasons;

Lyric songs refer to a particular type of folk song - oral poetry composed of independent quartets, created by one or more people on the subject of love. The lyrical songs that sing only to sing, reflecting the real story through the experiences of the person, created by love, and sadness, sadness and longing, bitterness and sorrow, the heartache of people.

Mehts Bytes - There is a long tradition of writing some fragments of written and oral poetry, which are in everyone's mind, to write the acceptable bytes on the mosque and madrassah, on the walls of luxurious houses and hotels, on various palaks and suzanni. These examples we have conditionally referred to as love bytes. (10, 100)

Sets - Lyrical, lyrical poems from 10 to 12 lines, 150-200 and sometimes even more, with verses devoted to the description or criticism of individuals and animals, about various events in social life that are about discipline, morality, music and speech. are referred to as (11,169)

Seasonal ritual songs are seasonal ritual songs. The seasonal ritual will include songs such as "Ramadan", "Barot has come", "Miss Woman", "Safar escaped", "Badik" and "Boycechak".

Songs that are sung during the wedding ceremony are counted as wedding songs. They included songs such as "Uldan", "Lapar", "Bayt Ghazal", "Kelin Salom", "Welcome".

In his monograph on ritual folklore, the Uzbek folklorist B. Sarimsakov categorized the folklore of the seasonal ceremonies as follows: 1) Winter folklore (mourning and gossip); 2) Spring ritual folklore (horns, singing, sludge, Navruz holiday, "Sustainer"); 3) Folklore of Summer Ceremonies ("Blessings" and Winds) (12, 8)

The scholar of folklore M. Juraev notes that among the classics of the Uzbek seasonal ritual folklore there is a certain perfection of the following classification, which covers all known genres of Uzbek folklore ritual.

M. Pirmatova, a young researcher with a special interest in Uzbek seasonal rituals, summarized the scientific classifications and classifications available in folklore in her dissertation and introduced the following new classifications: 1) Songs and lyrics of seasonal and labor rituals. (6, 24)

The rituals reflect the most important periods of human life, turning points (birth, maturity, marriage, death) and their relationship to nature, and also carry on a domestic, psychological and aesthetic function. (6, 25)

Researchers have studied the fact that Uzbek ritual folklore is divided into two major groups. We believe that it is necessary to include religious rituals in the classification of ritual songs that do not deny that these two groups are the main members.

1. Seasonal ritual songs;
2. Family songs;
3. Religious ritual statements.

Seasonal rituals, in turn, are divided into 2 large groups:
1. Songs related to the season.
2. Seasonal-labor ritual songs.

Family and family ritual songs also come in 4 large groups:
1. Ritual statements based on the magical power of the word.
2. Childhood cradle rituals and songs.
3. Wedding ceremony songs.
4. Mourning ceremonial songs.

Religious ritual statements can also be divided into two groups:
1. Religious ritual statements.
2. Religious thematic statements.

Folk songs have a strong position in Uzbek folklore, as do other types. The main reason for the song is the deep pain or sudden rise in the mood of the person. The person is silent during adverse times, trying to find a solution to the situation. At such moments, sad music is comforting, and a bit of a heartbeat. In the moments of joy, accompanied by singing and dancing. Such negative and positive circumstances can give rise to lyrical experiences in the person's heart, which eventually lead to the creation of the song.

CONCLUSION

In conclusion, the issues of domestic orientation and performance in folk songs are factors that characterize it, and in their classification, first and foremost the emergence, development of each genre, and the state of modern live performance, poetic features, artistic expressions, and mythology. The nature of thinking and the image system need to be considered in integrity.

REFERENCES

A SET OF TERMS AS THE PRINCIPLES OF THEIR ORDERING AND DESCRIPTION

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ABSTRACT
Following work is dedicated to terminology is the study of the formation and use of special words that accumulate improvement of existing terminological systems and that each term has a strict definition.

KEYWORDS: terms, special words, terminological systems, set of concepts, material objects.

INTRODUCTION
Terminology, in contrast to other layers of vocabulary, to a large extent is subject to ongoing systematic regulation. Terminology is in constant motion: something in it dies, the cycle of life of terms, concepts, definitions expires. They go out of use, are eliminated along with obsolete, outdated or turned out to be unscientific concepts. Such, for example, were the terms "chrematistics", "political economy" and hundreds of others in the history of science. Many "old", long-known terms, such as "economy", are filled with completely new scientific content. This change in the content of the concept sometimes becomes very prominent if you compare the etymology of the word, i.e. its literal meaning, laid down in the word at the very beginning of its appearance in the language, with the modern understanding. Terminology is a set of terms of a particular branch of knowledge or production, as well as the doctrine of the formation, composition and functioning of terms. The subject of the General theory of terminology is: the study of the formation and use of special words that accumulate and transmit the knowledge accumulated by mankind; improvement of existing terminological systems; search for optimal ways to create new terms and their systems; search for universal features inherent in the terminology of different fields of knowledge. The term (lat. terminus 'border, limit, end') is a special word or phrase adopted in a certain professional field and used in special conditions. The term is a verbal designation of a concept that is part of the system of concepts of a certain area of professional knowledge. Terminology (as a set of terms) is an Autonomous sector of any national language, closely related to professional activities. The terms of each branch of science, technology, and production form their own systems, defined primarily by the conceptual connections of professional knowledge in an effort to express these connections by language means.

MATERIALS AND METHODS
Thus, language is a structural element of scientific knowledge. The more "scientific" a science is, the greater the weight of language in its structure. Language "enters" science primarily by terminology. Other elements of the language cannot be compared with it. According to A. A. Reformatski, the terms reflect a socially organized reality, so the terms are socially binding. As a tool for forming scientific theories, laws, principles, provisions, terms and terminologies as their systems, they are an important part of science and technology.

Terminology is generally related to the system of scientific concepts. You can give this definition of terminology: a set of names, words and phrases used for accurate and unambiguous designation of scientific concepts in the system of concepts of this science, technology and production. Terminology is in constant motion: something in it dies, the cycle of life of terms, concepts, definitions expires. They go out of use, are eliminated along with obsolete, outdated or turned out to be unscientific concepts. Such, for example, were the terms "chrematistics", "political economy" and hundreds of others in the history of science. Many "old", long-known terms, such as "economy", are filled with completely new scientific content. This change in the content of the concept sometimes becomes quite a relief, if we compare the etymology of the word, i.e. its literal meaning, embedded in the word at the very beginning of its appearance in the language, with a modern understanding. G. O. Vinokur defines terminology as a spontaneously formed set of terms that
reflects the historical process of accumulation and comprehension of knowledge in a certain area. Terminology is supplemented by common vocabulary and in turn enriches it. According to D. S. Lotte, scientific terminologies are ordered sets of terms opposed to disordered ones. V. p. Danilenko believes that terminology is a common set of special names of different fields of science and technology that function in the field of professional communication. The researcher also notes that the term "terminology" corresponds to two concepts. In a narrow sense, terminology is a set of terms in one area of knowledge that reflects the corresponding set of concepts. In General, it is a General set of terms for all areas of activity. S. V. Grinev considers terminology as a set of terms used in a particular field of knowledge. He also draws attention to the term "terminology" itself, and considers it a clear example of the need to streamline special vocabulary. The researcher says that until recently, this term was used to refer to three different concepts—not only in the main sense—"system" of terms of a certain field of knowledge. V. M. Leychyk notes that with the rapid development of any field of technology or science, the media begins to actively reflect its achievements, as a result of which certain terms pass from special use to General use. At the same time, the terms expand the scope of their use and lose their scientific accuracy. Terminology is a set of special words-terms and is an Autonomous sector of any national language, closely related to professional activities. The terms of each branch of science, technology and production form their own systems, correlated with the system of concepts of the corresponding branch of knowledge. K. Ya. Averbukh clarifies this characteristic, emphasizing that terminology is a set of units of a special category of a certain field of activity, an isomorphic system of its concepts and serving its communicative needs. A term system is a terminology that explicitly presents its system properties. A term is an element of terminology (term system) that represents a set of all variants of a non-linguistic sign or a steadily reproducible Syntagma that Express special concepts of a certain field of activity L. A. Novikov has other definitions: Terminology is a set of special words (terms) of various fields of science and technology that function in the sphere of professional communication. A term is a word or phrase that is the name of a scientific or technical concept.

RESULTS AND DISCUSSION

There are several stages in the work of the terminologist: a) terminating the concepts of science and technology is performed by industry experts together with logicians and linguists. At the same time, systems of terms of individual branches of knowledge are constructed and the most objective lexical units are selected for their designation; b) normalizing the use of terms that exist in a given language and making recommendations for creating new terms for each branch of knowledge. It is performed by subject specialists together with linguists. At the first stage of ordering, all existing word usage is recorded. The most appropriate, competent, system-based, and implemented ones are selected from them, allowing further word formation based on them. At the second stage, the terminologist begins to create new terms based on existing models, checking their consistency and ease of entering the language of science. If such terms are adopted by law, they become mandatory for General use in official documents. To bring existing terms in line with the current state of science, a critical revision of term systems is systematically carried out. Terms that are not recommended for official use remain in the professional vernacular, where they are subject to all sorts of deformations. For example, in Russia in the 1960s, the technical term “washer” was replaced by “spring washer”. However, since the old term was well implemented, it has been preserved in professional vernacular as "engraving washer" or simply "engraver"; c) long-term experience of European terminology showed that it is not necessary in that whatever was to introduce international words, if you have adopted national; should not be cast out of borrowing if they are well included in the terminological system; do not forcibly eliminate synonyms, because absolute synonyms are almost there. If different terms are used to refer to a concept, the reason for this should be revealed: perhaps there are different phenomena taking place here. Then both terms are saved, and each gets a definition; d) creating industry-specific terminology dictionaries; monolingual explanatory dictionaries, bilingual translation dictionaries that establish equivalent term systems for two languages. The main mass of such dictionaries is based on a systematic principle, reflecting the hierarchy of concepts in their relationship with each other. The alphabetical organization of the material plays a subordinate role. Therefore, it is very difficult to create a multilingual terminology dictionary; e) standardization of terminological systems at the national and international levels is necessary because the scope of concepts denoted by seemingly identical words does not coincide in different languages. For example, the Russian language corresponds to English. force and strength, technology is not technology, but technique; technical term – not a technical term and the term at all. International standardization is meaningless if it is not preceded by carefully conducted national standardization. In this case, the main thing is not the nature of the language, but the ratio of the concepts of this science. It is dictated by the language forms. In parallel, work is being done to regulate the terminology
The adoption of an international standard does not mean abandoning traditional national systems, in particular traditional Russian ones developed by representatives of domestic schools. It is not necessary to replace oxides with oxides in chemistry (otherwise we risk losing the system of Russian designations). International standardization means, first of all, the establishment of precise definitions and unambiguous correspondences of domestic and foreign terms and nomens; g) standardization means the uniform content of a term or nomen standardized in Russian, English, and other languages, and not the substitution, for example, of carbon dioxide for carbon dioxide, oxidation for oxidation, potassium sulfate for dikali sulfate, iron oxide for iron oxide, or iron trioxide. This contradicts the norms of Russian word formation. Standardization does not encroach on the national form of the term in the language in which it is used. Terminology created in foreign languages is borrowed into other languages entirely, as a system, only if this industry is new for this country (as, for example, helminthology in Russia: the majority of terms in this science are from English); h) industrial standardization of things and their names began in 1910-1912 and intensified after the First world war. There are two types of standards: "hard", mandatory (for industrial products – the need to observe the exact dimensions, proportions of the content of the constituent substances) and "soft" standards, or recommendations. The meaning of the message will not change if you say Belleville spring instead of Poppet spring. It is difficult to eradicate familiar symbols from professional speech. Recommendation character of terminological, transliteration, etc. It helps to identify their advantages and disadvantages. If experts do not use the proposed terms, then there is a flaw in the standard; i) currently, there are standards committees in 60 countries. They involve thousands of experts to thoroughly study what is subject to standardization; j) exchange of experience and coordination of work, holding seminars and conferences. This type of work became especially active after 1949, when UNESCO held an international conference on science and abstraction. In 1971, UNESCO and the international Committee on scientific relations (ICSU) held a conference of governments, which announced the project of creating the UNISIST (World Science information System) – an international information system under the leadership of E. Wuster. It is a multilingual terminology system that uses standardized terms. At the same time, Infoterm was founded (INFOTERM – International Information center For Terminology). The international standards organization (ISO) coordinates standardization work worldwide. The terminology is handled by the technical Committee of this organization ISO / TC-37 " Terminology (principles and coordination)". Since 1977, language symposiums have been held for special purposes.

CONCLUSION

The main requirement for the language of science is clarity, which does not depend on the personal experience of different researchers. Science seeks clarity through the use of terminology. In contrast to natural language words, a term always describes a strictly defined set of material objects, or their interactions and relationships, that is uniform for all. This unity is achieved due to the fact that each term has a strict definition, and to understand the term, you need to know both its own definition and the definitions of all the terms used in its definition, up to the basic, undefined concepts. However, in order to understand the term, it is necessary to imagine the physical reality behind it. If there is no physical reality behind the term, it is meaningless.

Finally, in science, only the use of its terms is allowed. If any relation or interaction in this science is not defined, then you cannot use it. But there is nothing to prevent you from defining it first and then using the new term that you have obtained in this way.

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MORPHOLOGICAL CHANGES OF THE GASTRIC MUCOSA IN HELICOBACTER ASSOCIATED GASTRODUODENIT

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ABSTRACT
Using histological and histobacterioscopic methods, 178 biopsy samples of the mucous membrane of the antrum and fundus of the stomach were obtained from 100 patients with chronic gastroduodenitis associated with pyloric helicobacter. It was established that different life forms of pyloric helicobacter cause one type of chronic helicobacter gastritis, but different activity of the pathological process. A histobacterioscopic study of CO biopsy samples from different parts of the stomach in patients with chronic gastritis revealed a predominance of HP contamination in the form of associations of 3 forms of HP (convoluted, rod-shaped, coccoid) in 45.5% of cases. The degree of severity of chronic antral gastritis B and chronic fundal gastritis B was maximum with triple contamination of the stomach HP and minimal with its seeding by individual life forms of HP, mainly cocci form.

KEY WORDS: H. pylori, diagnostics, morphology, prevalence, gastric mucosa.

INTRODUCTION
Helicobacter pylori (H. pylori) is a microaerophilic spiral gram-negative bacterium that colonizes the mucous membrane of the human stomach. Due to its structure and the production of certain enzymes, the bacterium is able to overcome the host’s protective barriers, survive in an acidic environment and colonize the gastric mucosa [1].

Infection occurs mainly through the oral fecal route, in particular through contaminated water and food. Oral transmission is also possible, as evidenced by the release of bacteria from saliva and plaque [2]. According to modern concepts, H. pylori causes chronic active gastritis in all infected individuals. This can lead to peptic ulcer, atrophic gastritis, gastric adenocarcinoma, or MALT lymphoma of the stomach [4,5]. Elimination of H. pylori leads to the cure of gastritis, which is the basis for the prevention of long-term complications or relapses of the disease. For these reasons, H. pylori- associated diseases are considered infectious, regardless of symptoms and stage [3,6].

The prevalence of infection varies by geographic area, age, ethnicity and socioeconomic status. A meta-analysis published in 2017 suggests that H. pylori prevalence remains high in most developing countries (70–90%), as well as in individual indigenous populations of developed countries, and is usually associated with socio-economic status and hygiene. Moreover, there is a decrease in the prevalence of H. pylori in developed countries (25% –50%), which is explained by an increase in living standards and improved hygiene [7, 8, 9].

A significant decrease in the incidence of gastric cancer and peptic ulcer in Western Europe, the USA, and Japan is associated with a decrease in the prevalence of H. pylori [10, 11].

Methods for detecting bacteria include direct histological imaging, detection of bacteria by urease activity, metabolic products of urea degradation, detection of antigens, polymerase chain reaction (PCR) and antibodies as a result of a systemic immune response [12, 14].

Currently, there are both invasive and non-invasive methods for diagnosing H. pylori infection. Invasive methods, such as histology, an urease rapid test, microbiological cultivation and polymerase chain reaction, require esophagogastroduodenoscopy (EGD) and the study of biopsy specimens [13].
The histological method was the first method that was used to detect H. pylori in biopsy specimens of the gastric mucosa ( coolant). The histological method allows you to directly visualize H. pylori and can be recommended for initial diagnosis in patients who are shown endoscopy [15, 16]. A histological examination allows not only to identify H. pylori, but also to quantify the degree of bacterial contamination, to assess the nature and activity of inflammation of the gastric mucosa, to identify the presence of other pathological processes (the severity of atrophy, intestinal metaplasia or precancerous changes) [17].

The purpose of this study is to study on the material of gastrobioplates the morphological changes in the gastric mucosa of the antrum and fundus of the stomach during its contamination with different life forms of HP.

MATERIALS AND METHODS

By histological and histobacterioscopic methods, 178 biopsy samples of the antrum and fundus of the stomach were studied from 100 patients (men - 52 and women - 48) aged 20 to 45 years with chronic gastroduodenitis. Gastrobioplates were taken during esophagogastroduodenoscopy (endoscopy) with the informed consent of the patient. Verification of the diagnosis of HP infection in addition to clinical data was carried out by histological, histobacterioscopic and urease express methods (Helik-test and Help-test).

Evaluation of histological preparations was carried out by a semi-quantitative method on the visual-analogue scale Dickson M.F. et al. [9] after preliminary staining of gastrobioplates with Alcian blue, Mayer hematoxylin and eosin.

For histobacterioscopy, biopsy samples from different sections of the gastric mucosa were pre-stained with a 0.1% aqueous solution of acridine orange in our modification (rationalization proposal No. 214-493 of 08/13/90), alcohol solution of thionine according to Nicolas, as well as methylene blue according to Lefleur and azure II-eosin according to Giemsa without subsequent differentiation.

Contamination of gastric hypertrophy of the stomach was verified by a semi-quantitative method in three degrees: I degree (+) -10-20, II degree (++) -21-50 and III degree (+++) - more than 50 microbial bodies HP in the field of view with an increase of x600 [2] with the determination of the percentage of different forms of HP in the gastrobiopathy. The histological type of gastritis and the degree of activity of the pathological process (severe, moderate, minimal) were evaluated according to the Sydney classification.

RESULTS AND ITS DISCUSSION

When studying 178 gastrobiopsy samples of mucosa from different parts of the stomach from 100 patients, different life forms of HP were revealed - convoluted, rod-shaped and coccoid.

Of the 5 biopsy samples of mucosa of the fundus of the stomach contaminated with predominantly convoluted forms of HP, where chronic fundal gastritis B was histologically confirmed, in 3 out of 5 patients minimal inflammatory activity was diagnosed, and only 2 patients had chronic fundal gastritis B characterized by moderate pathological activity process. The result obtained is most likely associated with histobacterioscopic features of the sample of biopsy material, as well as the small size of the gastrobiopsy specimens, the mucosa of which does not always fully reflect the true histological picture of its lesion by the mentioned forms of helicobacter.

In 10 biopsy samples of mucosa of the fundus of the stomach contaminated mainly by rod-shaped forms of HP in 1 patient, chronic fundal gastritis B with marked pathological process activity was verified, in 4 cases chronic fundal gastritis B with moderate inflammatory process activity and in 5 cases chronic fundal gastritis B with minimal inflammatory activity.

In 6 biopsy samples of mucosa of the fundus of the stomach, which was mainly contaminated with cocciform forms of HP, histologically also found chronic fundal gastritis B - in 1 patient with moderate activity of the pathological process, and in 5 cases with minimal activity.

In the study of 13 gastrobiopsy samples of mucosa of the fundamental part of the stomach, in which mucosa was simultaneously contaminated with different life forms of HP (crimped, rod-shaped and cocciform), chronic fundal gastritis B was revealed histologically in 6 patients with moderate activity of the pathological process, while with minimal activity of the inflammatory process in 7 cases.

It is known according to the literature [4] that with HP infection, the most frequently involved in the inflammatory process is the mucosa of the antrum, which is confirmed by more pronounced histological changes in this section of the stomach. So, with a histological analysis of 20 biopsy samples of the mucosa of the antrum and its contamination with predominantly convoluted forms of HP, chronic antral gastritis B was detected with moderate activity of the pathological process.

In the study of 32 biopsy specimens in which the antrum of the stomach was contaminated mainly by rod-shaped forms of HP, chronic antral gastritis B was revealed histologically in it. In 9.4% of cases, it had a pronounced pathological process activity, in 75% - moderate, while in 15 , 6% - its minimum activity.

Analysis of 15 biopsy specimens of the antrum of the stomach, which was mainly contaminated with coccid forms of HP, histologically diagnosed chronic antral gastritis B, which in 26.6% (4) cases was with pronounced inflammatory activity, in 60.0% (9) with its
moderate and in 13.3% (2) - the minimum activity of the pathological process.

In 77 gastrobiopsy specimens of the antrum of the stomach, three life forms of HP (convoluted, rod-shaped, coccoid) were simultaneously detected. A histological examination diagnosed chronic antral gastritis B, which was pronounced in 42.9% (33) cases, moderate in 51.9% (39), and minimal pathological process activity in 5.2% (5) cases.

A critical analysis of the literature on helicobacteriosis showed that in chronic gastritis, the GM of the stomach is contaminated with different life forms in 65–85% of cases. Studying gastrobiopptates with different histobacterioscopic methods, we found that all the studied gastrobiopptates are contaminated with HP in 85.5% in the form of different forms and associations (convoluted, rod-shaped, coccoid), affecting not only the surface epithelium, but also the epithelium of the gastric dimples, causing the development of inflammatory process. We can agree with V.A. Isakov et al. [4] that the transition of convoluted forms of HP into coccoid forms occurs through rod-shaped and is a manifestation of phase processes of transformation of HP. At the same time, the contamination of HP gastrobiopptates in the triple association was found in 45.5%, while in the form of monofoms it varied from 3.6% (convoluted forms) to 22% (cocciform forms), and the severity of the inflammatory process in the antrum and fundus during Helicobacter pylori infection was maximal with their seeding by individual life forms of HP, mainly cocciform.

CONCLUSIONS

1. The study of gastrobiopsy specimens of the mucous membrane of the antrum and fundus of the stomach using histological, histobacterioscopic, and urease express methods in 100 of the observed patients revealed 100% of cases of chronic fundal gastritis B and chronic antrum gastritis B in these departments. 5%.

2. A histobacterioscopic study of CO biopsy samples from different parts of the stomach in patients with chronic gastritis revealed a predominance of HP contamination in the form of associations of 3 forms of HP (convoluted, rod-shaped, coccoid) in 45.5% of cases. The percentage of detection of monofm in biopsy specimens varied: convoluted forms were detected in 3.6%, rod-shaped forms in 12.0%, coccoid forms in 22% of cases.

3. The degree of severity of chronic antral gastritis B and chronic fundal gastritis B was maximum with triple contamination of the stomach stomach HP and minimal with its seeding by individual life forms of HP, mainly cocciform.

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FACTORS IN THE FORMATION OF COMMUNICATIVE COMPETENCE IN A FUTURE TEACHER

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ABSTRACT
This article is devoted to the communicative competence in future teachers, able, easily, actively and independently to think, to modulate, to transform educational process and also independently generate and embody modern ideas and technology in teaching.

KEY WORDS: competence, communicative competence, modern educational system of communication, communicative activity.

INTRODUCTION
Professional and qualified preparation of teachers for pedagogical activity carries a number of features that are associated with the quality of his knowledge, abilities in the studied subjects. And the formation of communicative competence is necessary for a more productive work of the teacher in the pedagogical sphere, being especially important for the full development of the comprehensively developed younger generation. “It should be noted that modern requirements for the preparation of students - future teachers are changing rapidly, because society needs not just for a professional teacher, but also a competent specialist who has a variety of teaching methods using as innovative technologies”.[7,134]

Analyzing the views of domestic and foreign researchers, we can say that communicative competence is interpreted as a certain amount of integration competencies, supplemented by empathic and reflective abilities, which develops during special educational classes, thereby communicative competence can be considered as follows:

- firstly, the totality of human competences in the field of communication, which are necessary to carry out certain activities;
- secondly, it is part of a person’s interpersonal life experience obtained in the process of interaction with other people, his independent activity in various situations;
- thirdly, these are the socio-personal qualities of a person that regulate his entire system of relations with the world, as well as with himself;
- fourthly, this ability as a personality trait that determines its capabilities in a wide variety of activities, with its indispensable compliance with this type of activity;
- fifth, this is a person’s willingness to organize his speech behavior in the presence of real life personality characteristics that determine its outstanding success in communication;

a combination of abilities, personal qualities and acquired competencies;

a combination of abilities, personal qualities and acquired competencies;

As we can see, communicative competence is:
situations in accordance with the above components. It is worth noting that the presence of the presented components is a prerequisite for the successful implementation of productive and professional activities of a person in a certain area.

MATERIALS AND METHODS
In the article, we also determined that “communicative competence” necessarily includes subsections of a number of psychological and pedagogical concepts, and above all, these are the concepts of “ability” and “readiness”.

The concept of "ability" includes the following characteristics:
- “these are the individual psychological (personality) properties of a person (anatomical, physiological, regulatory, physical, psychophysiological, etc.), which determine the mental capabilities of a person in various types of activities” [3; 434];
- “these properties are to some extent determined by the knowledge, skills and abilities of the individual, but are not reduced to them; they are manifested in the speed and strength of mastering the methods of a certain activity "and these properties" determine a person’s capabilities, are a condition for his successful performance of one or another productive activity" [2; 321];

The concept of “readiness” means an action with the mobilization of “all psychophysiological and functional systems for the upcoming fulfillment of a certain action, an operational setting, an afferent synthesis of the conditions for the effective fulfillment of an upcoming action, and an increase in sensitivity to the conditions of activity". [4; 74]

And "readiness for activity itself is a complex dynamic system that includes the intellectual, emotional, motivational and volitional sides of the psyche." [5; 55]

As we can see, these factors are inextricably linked, and act as special integral qualities of competence. But at the same time, “to be able” and “to be ready” for some activity is not the same thing. The concept of “readiness” can “limit the range of individual psychological properties of an individual, leaving knowledge, skills, and abilities beyond its limits. So, a person can be well technically prepared and educated, but little capable of any activity.” [1; 247]

The analysis of these concepts allows us to conclude that a person can be ready to carry out any activity, but for this he will need to mobilize all his personal qualities and mental abilities in order to successfully complete the task of the activity. Thus, based on the above provisions, we determine the structure of communicative competence, which includes the following components (Scheme 1).

Communicative competence cannot be considered the final characteristic of a human person. The acquisition of communicative competence is a progressive movement from point A to point B, from actual events of a person's nature to the results of awareness of the data of occurring events, which are fixed in the cognitive structures of the human psyche in the form of certain competencies that can serve the person in his further contacts with surrounding people, because “the ability to learn in communicative situations increases as a person develops cultural, including ideological and moral norms and the law polarity of public life." [6; 58]
A thorough study of the essence and structure of communicative competence allows us to distinguish two interconnected and, at the same time, interdependent levels: the first level should determine the manifestation of communicative competence directly in the communication itself, i.e. communicative human behavior; the second should include pedagogical and communicative values, with the orientation and specificity of the teacher’s professional motivation, his special need for communication.

In aggregate, all the considered components represent a certain content of communicative competence, and form one of the most complex systems of interconnected and interdependent qualities of a human person. As a result, communicative competence can act as one of the most significant professionally-oriented characteristics of a teacher, and the development of this competency is a priority in higher professional education. Modern stages of the development of society, new paradigms in education, all this fills the problem of the formation of communicative competence with newer content.

It should be noted that the modern requirements for the training of students - future teachers, are changing rapidly, because society needs not just a professional teacher, but also a competent specialist who owns a variety of teaching methods. In connection with this provision, the effective preparation of bachelor teachers for their future teaching activities plays a crucial role.

**CONCLUSION**

1. The study reveals the structural components of "communication activity":
   a) the subject of communication is another person;
   b) communicative motives - that’s why communication takes place;
   c) self-awareness and self-esteem;
   d) initiative and response actions;
   e) education of the spiritual, moral and material nature of communication;
   f) means of communicative activity - these are operations by means of which communication actions are carried out.

2. Both verbal communication, where human speech is used, and non-verbal communication, in which various non-verbal signs and symbols are used,
are distinguished. Speech, as you know, is the most universal means of communication, because during the transmission of information through speech, the least sense of communication is lost.

3. Competence in all types of communication can consist in achieving three basic levels of adequacy of interlocutors for communication:
   a) communicative;
   b) interactive;
   c) perceptual.

4. In modern scientific and methodological literature, we single out the integration characteristics of competencies:
   - social competencies related to the ability of a person to take responsibility, to participate in the joint adoption of any decisions;
   - competencies that regulate life in society, and designed to prevent the spread of feelings of intolerance, and also contribute to a special understanding of a person’s readiness to live with other people who are representatives of other cultures, languages and religions;
   - competencies that determine a person’s written and oral communication skills, which are especially important in modern public life and professional activity;
   - competencies that are associated with the emergence of an innovative information society, where the possession of new technologies is especially priority;
   - competencies that realize a person’s ability to learn throughout his life, not only in his chosen profession, but also in his personal and public life.

5. It is also important to note that “communicative competence is a complex entity that includes the following components:
   - subject (non-verbal competence),
   - linguistic (speech competence),
   - socio-cultural (including competences in the field of social relations, communication psychology),
   - pragmatic (directly related to the communication of the addressee and the addressee of speech in a certain situation - motives, attitudes and goals of communication).

6. In general, communicative competence can consist of the following integration features:
   a) Socio-psychological forecasting of the communicative situation, on the basis of which communication should take place.
   b) Socio-psychological programming of the process of communication itself, where emphasis is placed on the originality of the communicative situation itself.
   c) Implementation of the features of socio-psychological management of communication processes in a communicative situation.

7. Clarification of the essence of the concept of “communicative competence” of a teacher allows us to present its essential structure, which helps to understand the ways of its improvement. The structure of the teacher's communicative competence must necessarily include integration competencies for the following actions:
   - interpersonal perception and assessment of the situation of communicative communication (perceptual component);
   - introspection and self-esteem of their behavior in the process of communicative communication (reflective component);
   - selection of adequate means for interpersonal communication;
   - management of the process of communication and the corresponding regulation of human behavior (behavioral component).

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OPPORTUNITIES FOR DEVELOPMENT OF YOUTH TOURISM IN UZBEKISTAN

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ANNOTATION
This article describes opportunities for the development of youth tourism in the Republic of Uzbekistan and is explained in accordance with the adopted regulations. It also provides ideas and recommendations on implementation of the Concept of development of youth tourism in the Republic of Uzbekistan for 2020-2025.

KEYWORDS - Tourism, tourist, young tourist, youth, youth tourism, capacity, concept, design, infrastructure.

INTRODUCTION
To date, much attention is paid to the development of tourism in our country and the development of modern types of tourism. In this regard, in accordance with the Decree of the President of the Republic of Uzbekistan "On measures to further develop the tourism industry in the Republic of Uzbekistan", the main goal is to develop a concept for the development of youth tourism, which includes to construct youth tourism infrastructure to create favorable conditions to attract young tourists to our country, to organize cultural-entertaining events for attracting youth, to create a preferential system for attracting young tourists.

Particularly, much attention is being paid by the state to support young people in the country. As the President of the Republic of Uzbekistan has said in this regard, “… the state support for women and youth should be further strengthened [1]." Indeed, as a result of our efforts to promote domestic tourism and popularize youth tourism in our country, local tourist’s number was more than 14 millions in 2018.

Our country, which is rich in historical buildings has its place in the world in terms of tourism potential and opportunities. The number of tourists increasing year to year who wants to see our ancient cities like Samarkand, Bukhara, Khiva, Shakhrisabz and Termiz, to visit unique architectural monuments, to do pilgrimage, to discover the unique nature, to learn about our ancient traditions and values. Adopting of normative and legal acts on improving the quality of tourism services and creating favorable conditions for travelers, expanding the range of services and the introduction of a visa-free regime, as well as the establishment of guest houses and tourist villages are indicative of the development of the industry.

Our country has sufficient potential for the development of youth tourism. There is a need to study their wishes to attract young tourists to our country, to create the necessary conditions and appropriate infrastructure facilities based on their requirements. From this point of view, a special attention was paid to the development of youth tourism in Uzbekistan. Therefore, the development of youth tourism will ensure the...
establishment of priority goals and objectives for the active attraction of young tourists to our country, further increase in the flow of young tourists, improvement of the quality of tourism services and creation of tourism infrastructure for young tourists.

RESEARCH METHODS
In this article induction, deduction, analogy, comparative, economic analysis, observation, comparison research methods are used.

ANALYSIS AND RESULTS
According to the World Tourism Organization (UNWTO), the number of young people is increasing worldwide among tourists. In particular, the number of tourists worldwide in 2018 was 1.4 billion, of which 25% were tourists under 30. At the end of 2018, 5.3 million foreign tourists visited Uzbekistan, of which over 1.5 million were young people. The average age of tourists visiting our country in 2010 was 60, and today it is 45. This indicates the growing number of young people among the tourists visiting our country.

More than 60% of the population of Uzbekistan is young people, and in this regard there is an opportunity to further develop the share of domestic tourism through the development of youth tourism in our country. In terms of numbers, Uzbekistan has a huge potential for the development of youth tourism. In particular, there are 1,915 recreational facilities and tourist facilities in Uzbekistan, including 205 amusement parks, 51 thematic parks, 34 eco parks, 63 water parks, 43 water attractions, 120 museums, 17 youth towns, 450 up-to-date restaurants and cafes, 95 cinemas and theaters, 52 entertainment centers, 168 modern-day hosts, 8850 craft workshops, 64 agro-tourism facilities, 655 tourist type vehicles (231 buses, 284 units) minibus, 30 electric cars, 4 cars Eker, 39 quad bikes, 5 hydrocycles, 62 non-road) and 48 horse and camel farms.

In addition, more than 8,000 cultural heritage objects, more than 100 universities, more than 1,000 summer camps, numerous sports facilities and recreational facilities can attract young tourists.

Growth rate of foreign visitor youth by 2017 was 4% on average, up from 12% in 2018 to over 1 million 525,000. In the past period of 2019, more than 1 million 750 thousand foreign tourists visited the republic.

To increase the interest of young people in the field of tourism within the framework of the “Travel around Uzbekistan!” program, the Tourism Challenge was organized with more than 600 tours covering more than 10,000 young people.

Indeed, the project of resolution of the Cabinet of Ministers on measures to develop youth tourism in the Republic of Uzbekistan has been developed. In order to implement the Decree of the President of the Republic of Uzbekistan “On measures to further develop the tourism industry in the Republic of Uzbekistan” adopted in August 13, 2019, number PD-5781, develop youth tourism in the country, increase the flow of young tourists’ education in the spirit of love for the country, to make tourism popular activity among the youth, to increase the number of tourist attractions, diversify tourist services and improve their quality special project has been developed.

As part of this project, the Action Plan for 2020 on the implementation of the Concept for the Development of Youth Tourism in the Republic of Uzbekistan for 2020-2025 was approved. Also the main tasks of the State Committee of the Republic of Uzbekistan on tourism development in the development of youth tourism were identified.

Table 1. Indicators of implementation of the concept of development of youth tourism in Uzbekistan for 2020-2025 [7]

<table>
<thead>
<tr>
<th>№</th>
<th>Name of the indicator</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number of young foreign tourists visiting Uzbekistan (thousand)</td>
<td>2020</td>
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<tr>
<td></td>
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<td>2021</td>
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<td></td>
<td>2022</td>
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<td>2024</td>
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<td></td>
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<td>2025</td>
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<tr>
<td>2.</td>
<td>Number of domestic young tourists (thousand)</td>
<td>6300</td>
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<tr>
<td></td>
<td></td>
<td>7500</td>
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<td></td>
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<td>9500</td>
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<td>10500</td>
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<td></td>
<td></td>
<td>12000</td>
</tr>
<tr>
<td>3.</td>
<td>Number of youth hostels, camps and boarding houses (units)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65</td>
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<tr>
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<td>90</td>
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<td>102</td>
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<td>120</td>
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<td></td>
<td></td>
<td>140</td>
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<tr>
<td>4.</td>
<td>Number of international youth festivals, forums and other events (units)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
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<tr>
<td></td>
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<td></td>
<td>70</td>
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<tr>
<td></td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>5.</td>
<td>Duration of stay of foreign tourists (day)</td>
<td>2,6</td>
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<tr>
<td></td>
<td></td>
<td>3,0</td>
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<tr>
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<td>3,3</td>
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<td>3,8</td>
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<td>4,0</td>
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<tr>
<td></td>
<td></td>
<td>4,3</td>
</tr>
<tr>
<td>6.</td>
<td>Average Travel Expenditure for a Young Foreign Tourist (US $)</td>
<td>225</td>
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<tr>
<td></td>
<td></td>
<td>270</td>
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<td></td>
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<td>324</td>
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<td>506</td>
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<td>607</td>
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</tbody>
</table>

Implementation of the concept of development of youth tourism in the Republic of Uzbekistan for 2020-2025 was
considered as a priority. Since the development of youth tourism in our country is a priority, its positive aspects include:
- job creation;
- increased income to lead to improved living standards;
- acceleration of urbanization processes, development of urban services, infrastructure and cultural organizations;
- acceleration of social and cultural processes;
- revival of local cultural values, development of folk customs and traditions and national crafts;
- preservation and restoration of local cultural monuments;
- increasing the attractiveness of the region;
- revival of local cultural life.

CONCLUSIONS AND SUGGESTIONS

Opportunities for the development of youth tourism in the Republic of Uzbekistan are diverse and unique. In this regard the project of the Concept of development of youth tourism in the Republic of Uzbekistan for 2020-2025 has been developed. The project is aimed at popularization of tourism among young people, by developing domestic tourism educate the youth in the spirit of patriotism, creation of favorable conditions for young tourists, establishing priority goals and objectives for the accelerated development of youth tourism, increasing the flow of young tourists to the country, diversification and improving the quality of youth services and improvement of tourism infrastructure for young tourists.

In this regard, for the development of youth tourism in 2020-2021, the creation of stable legal framework, modernization of relevant tourism infrastructure and active promotion of youth tourism brand in the country, the creation of youth tourism infrastructure in 2022-2025, diversification and improving the quality of services were provided. Based on these conclusions, the following measures should be developed for the effective development of youth tourism:

- further improvement of the legal framework for the development of youth tourism:
- development of tourism infrastructure and related infrastructure networks in the regions of the country, taking into account the needs and requirements of young tourists;
- organizing of various national and popular events on youth tourism and improvement of service infrastructure;
- stimulating the activity of subjects of tourism activities aimed at meeting the demand for youth tourism services;
- improvement of the system of training, retraining and advanced training of highly qualified specialists contributing to the development of the industry.

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BIOECOLOGICAL FEATURES AND ECONOMIC SIGNIFICANCE OF HIPPOPHAE L. UNDER THE CONDITIONS OF THE SOUTH ARAL SEA

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ABSTRACT
The article presents ecological and biomorphological features, the history of the introduction of sea buckthorn in the conditions of Karakalpakstan, its possibility of propagation by seeds, and also economic significance. Sea-buckthorn as a fruiting and medicinal plant has become widespread relatively recently and has proved that it is an important industrial plant. The fruits of sea buckthorn are distinguished by the content of high-quality sea buckthorn oil and are a multivitamin raw material.

KEYWORDS: introduction, history, ecology, Hippophae L., family, sort, biomorphology, particularity, seed duplication, economic importance.

INTRODUCTION
Sea buckthorn (Hippophae L.) is a genus of plants of the Sucker family (Elaeagnaceae) shrubs or small trees, their height reaches 6-8 m, and diameter is 20-30 cm. One of the species of the family Buckthorn buckthorn (Hippophoe rhamnoides) is widely distributed in the CIS flora.

The Latin name of the genus is the Latinized form of the Greek name for the plant hippophaes, which comes from hippos - horse and phaos - shine. It was believed that horses fed with sea buckthorn leaves had a particularly shiny skin. The species epithet rhamnoides comes from the name buckthorn (Rhamnos) and oides is similar. The Russian name “sea buckthorn” is associated with a large number of berries on the branches, which, under the favorable conditions for the existence of plants, literally "stick around" the branches [2, pp. 19-23].

The bark of the trunk is yellow-brown or almost black, the bark of the branches is brown. Shortened shoots are covered with numerous thorns.

Natural thickets of sea buckthorn are common in Siberia, Central Asia, Kazakhstan, the Caucasus, the Baltic coast. There are different types of sea buckthorn, which vary in size, shape and color of the fruit, in chemical composition, prickly, frost resistance and other signs. The local plantations are used not only for harvesting fruits, but are also custodians of the gene pool. Therefore, among the diverse and rich gene pool, there are specimens valuable in economic importance and used for breeding purposes.

Sea buckthorn gained wide popularity due to its fruits. They have high healing properties, determined by the content of vitamins, trace elements and organic acids, which are extremely important for the prevention and treatment of many diseases [7, pp. 76-79].

In Karakalpakstan, sea buckthorn as a fruiting and medicinal plant has gained distribution relatively recently and has proved that it is an important industrial plant. The fruits of sea buckthorn are distinguished by the content of high-quality sea buckthorn oil and are a multivitamin raw material.

In the conditions of Karakalpakstan, sea buckthorn in the wild does not grow. For the first time in the botanical garden of the Karakalpak branch of the Academy of Sciences of the Republic of Uzbekistan in 1963, sea buckthorn was grown, seedlings from the Tashkent Botanical Garden were brought for these purposes. After that, in 1980, prickly varieties of sea buckthorn from the botanical garden of the Academy of...
The sea buckthorn introduced in the conditions of Karakalpakstan showed that the biological processes occurring in sea buckthorn change every year. In these places, the beginning of the growing season comes on March 4-20, sea buckthorn begins to bloom on April 2-18, April 8-23, the interval is 6-12 days. The growth of the annual shoot begins after flowering and ends in the first half of September. Fruit ripening begins on June 15-17 and ends on July 1-15. Fallen leaves begin in November-December. Some leaves hang until hard frosts.

The growing season of sea buckthorn in our conditions from the moment of bud swelling to leaf decay is 256 days, that is, in comparison with the Altai Territory (Biysk city), it is longer by 40-45 days. This circumstance can be explained by the fact that in our country spring begins earlier than in the homeland of sea buckthorn, and autumn comes later.

The distribution of sea buckthorn in natural conditions in floodplains, as a rule, with a high standing groundwater indicates its high demands on the conditions of soil moisture. A moisture deficit in the root layer of the soil negatively affects the condition of the plant. During the period of summer droughts, it can be observed that the leaves at the base of the shoots dry out and fall more, the growth process ends early and the growth of annual shoots is weak.

Given the demandingness of sea buckthorn to soil moisture, it is necessary when growing, especially in the years of drought, it is enough to water. Achieving the normal development of the plant and a high yield of

RESULTS OF THE RESEARCH

As a result of many years of research in the botanical garden, sea buckthorn has become widespread in private household plots. It was also introduced into the Karakalpak agricultural industry for industrial purposes. The landing area of sea buckthorn is 15.5 hectares. Of these hectares, 10 hectares belong to the Ornek farm of the Nukus region, 4.5 hectares to the Azatlyk farm of the Klojeyli district, 0.5 hectares of Madaniyat and A. Dosnazarov farms of the Karauzyak district [4, pp. 23-24].

The observations showed that at present, sea buckthorn has been preserved only in the collection of the botanical garden, as well as in personal plots of people who love gardening and nature. One of the reasons for the decrease in area is that people have not yet understood the values and values of this plant.

The sea buckthorn introduced in the conditions of the South Aral coast is a shrub or tree with a height of 3-4.5 m, shoots are dark green, leaves are covered with silver, star-like pubescence. The shoots are covered on top with silvery, bottom brown coin-like scales. The leaves are arranged alternately, narrow, lanceolate, the length reaches up to 8 cm. The edges are solid, but slightly concave. The surface of the leaf blade is dark green, silvery bottom from densely covering star-shaped scales.

In Karakalpakstan, sea buckthorn begins to bloom in early spring (April-May), flowers appear earlier than leaves or simultaneously. The flowers are heterosexual, dioecious, collected in spike-shaped inflorescences. False fruit (drupes).

Wind-pollinated sea buckthorn plants (anemophilous). Flower buds are mixed, vegetative-generative, laid on the growth of last year, that is, in the year preceding fruiting. The beginning of bud blooming is observed in the phase of the end of the intensive growth of annual shoots in length, in mid-July - early August.

Male (staminate) flowers develop one at a time, their number in the generative zone of the shoot reaches 4-6 or more. The flower has a unisexual (cup-shaped), bifid, round-elliptical perianth of greenish-gray color with four free stamens. The flowering period of male bushes depends on the weather and lasts 6-12 days. Flowers on the axis of a growing shoot do not open in the direction from bottom to top at the same time. They are revealed when the daily temperature is above 6-10°C, they emit a large number of pollen.

Pistillate flowers, like stamen flowers, develop in the sinus of the covering sheet singly, less often in the form of a small-flowered umbrella with 2-3 flowers. Stamen and pistillate flowers do not have nectaries; therefore, they are not visited by bees and other insects.

The plate of the leaf changes the direction of the air stream, while pollen settling is observed on the stigma of the pestle [3, p. 57-59; 12, p.30-32].

After pollination and fertilization, the ovule turns into a kidney, and the ovary and hypanthium becomes a fetus. The color of the seeds is from gray-brown to dark brown, almost black.

The fruits of sea buckthorn are false, juicy achenes. From the beginning of flowering until the fruit fully ripens, 84-105 days pass. The duration of their formation depends on the genotype and weather conditions of the growing season.

Under optimal conditions, fruit setting is 30-90% of the total number of pistil flowers. Consumer ripening of fruits in time occurs on average 15-30 days after the end of pericarp growth and the appearance of seeds.

Phenological observations conducted in the conditions of Karakalpakstan showed that the biological processes occurring in sea buckthorn change every year. In these places, the beginning of the growing season comes on March 4-20, sea buckthorn begins to bloom on April 2-18, April 8-23, the interval is 6-12 days. The growth of the annual shoot begins after flowering and ends in the first half of September. Fruit ripening begins on June 15-17 and ends on July 1-15. Fallen leaves begin in November-December. Some leaves hang until hard frosts.

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The distribution of sea buckthorn in natural conditions in floodplains, as a rule, with a high standing groundwater indicates its high demands on the conditions of soil moisture. A moisture deficit in the root layer of the soil negatively affects the condition of the plant. During the period of summer droughts, it can be observed that the leaves at the base of the shoots dry out and fall more, the growth process ends early and the growth of annual shoots is weak.

Given the demandingness of sea buckthorn to soil moisture, it is necessary when growing, especially in the years of drought, it is enough to water. Achieving the normal development of the plant and a high yield of
fruits from the tree is possible with optimal soil moisture.

Sea buckthorn, as an ancient representative of the Sucker family, is a thermophilic plant; it loves heat especially in the early stages of its development. Proof of this is the temperature needed for seed germination. For example, the seeds of apples, thorns, cherries germinate after the end of the period of physiological dormancy of the embryo at a temperature of 1-30°C, and the seeds of sea buckthorn at a temperature of 10-12°C.

Frost tolerance of sea buckthorn arose in the process of evolution and in some way details the appearance of sea buckthorn in the environment. Frost resistance of fruit trees, especially sea buckthorn, is more dependent on the length of the dormant period and on the time of its end [12, p.30-32].

Sea buckthorn fruits contain up to 40% fatty oil, a lot of vitamin C, provitamin A, sugar, provitamin D, there are organic acids - malic, tartaric, nicotinic, B vitamins, tannins, a lot of proteins [10, p.102-103; 11, p. 182-183; 13, p. 50-52; 14, p. 101-106; 15, p.16-21]. The calcium content in fruits is 0.8853±1.0057% [14, pp. 101-106]. In addition to it, potassium, sodium, iron, phosphorus are determined - [6, p.65-66]. Also identified in the fruits are linoleic (34.2%), palmitoleic (21.37%), palmitic (17.2%), oleic (12.8%), linolenic (5.37%), stearic (1.67%) acids - [16, p. 368].

Seeds contain fatty oil, proteins, tannin, vitamins E, B1, B2, linoleic (42.36%), linolenic (21.27%), oleic (21.34%), palmitic (6.54%), stearin (2.54%) acids - [16, p.366-368]. The fruits of sea buckthorn are used fresh and in processed form, juices, compotes, preserves, pastas, etc. are prepared from berries. Sea buckthorn oil obtained from fruits and seeds is widely used in medicine.

From the pulp of seeds, peel and seeds get a thick oil. It is used in the treatment of various skin diseases and mucous membranes, in the prevention of certain diseases, in case of burns, frostbite, radiation injuries of the skin, in the treatment of mucous membranes, gastric and duodenal ulcers, in the prevention of digestive system diseases, in various radiation therapies for cancer, etc. [9, pp.11-13].

In folk medicine, the fresh fruits of sea buckthorn are used for stomach pains, its juice is used externally for bleeding. The gruel of the fruits is used externally for wounds to remove pigmentation after burns. A decoction of the fruit is drank in case of gastric ulcer. It bathes children for the prevention of skin diseases. A decoction of fruits and branches is used topically and internally for skin diseases, itching, and hair loss.

Pulp of dried flowers of sea buckthorn is locally used as a wound healing, anti-inflammatory, cleansing agent. Tea from the leaves is drunk with rheumatism, as an anti-zingotic agent, with anemia, gout, inflammation of the stomach and intestines. A decoction of seeds is used as a laxative [8, p.347-348].

In Tibetan traditional medicine, the fruits of sea buckthorn are used for heart and blood diseases, purulent pleurisy, intoxication, and diseases of the gastrointestinal tract. In Mongolian folk medicine, sea buckthorn berries are prescribed for tuberculosis, cough, acute pneumonia, and biliary tract abnormalities [1, p.67-69].

The leaves contain tannins, flavonic substances, ascorbic acid and volatile. A hipphon (a substance against edema (tumors) was found in the peel. The fruits of sea buckthorn are also used in the food industry, from which juice, jam, marmalade are made, jam, jelly are boiled, and added to sweets. All its products contain valuable vitamins. Tasty young shoots from ancient times are used as a feed product and for the treatment of animals.

Sea buckthorn has a meliorative value. It is able to form in a large number of root offspring that are easily separated from the mother bush. Root offsets depart from the main root in the upper layers of the soil, creating the opportunity to combat soil erosion. Due to this feature, sea buckthorn performs a large hydrological role in strengthening dams. The root offspring of sea buckthorn are also actively involved in the development of sandy soils affected by wind erosion. For these reasons, in the fight against erosion it will be advisable to include sea buckthorn in a number of forest trees.

Sea buckthorn deserves a wide study with a view to its use in landscaping settlements. Also, sea buckthorn due to the decorativeness of its fruits and leaves can serve as an adornment of our cities and villages, health resorts, forest parks, squares, school districts.

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PEDAGOGICAL INNOVATIVE TECHNOLOGIES IN HIGHER EDUCATION

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ABSTRACT
This article discusses the use of innovative pedagogical technologies used in the educational process. Recently, the issue of using innovative technologies in working with children has been raised more often in education. Today, the teacher faces new challenges and opens up new opportunities, taking into account their application.

KEY WORDS: innovation, research activity, own activity, memory development, project activity, pedagogical practice, main goal, educational process, form of work.

INTRODUCTION
In accordance with the modernization of Uzbek education, the main objectives of vocational education are: to prepare a qualified employee of the appropriate level and profile, competitive in the labor market, competent, responsible, fluent in their profession and oriented in related fields of activity, capable of effective work in the specialty at the level of world standards, ready for continuous professional growth, social and professional mobility. The goal of modernizing education is to create a mechanism for sustainable development of the education system. At different stages of its development, the company set new standards and requirements for the workforce. This necessitated the development of the education system. Education as a process and result can be effective and high-quality if there are clearly formulated concrete educational ideas, and they are accepted personally significant by all participants in the educational process.

The President's Message clearly stated that the future of our country is determined not by raw materials and natural resources, but by intellectual potential, the level of development of science and high technologies. To do this, education in Uzbekistan must go into a special innovative development mode, in which it is possible to preserve the best traditions of our national education and at the same time take into account global trends in the development of educational systems, and correlate our education with world norms and standards. The priority step on this path is the priority project "Education", which sets strategic goals for innovative development of education. One of the means of such development is innovative technologies, that is, they are fundamentally new ways and methods of interaction between teachers and students that ensure effective achievement of the results of pedagogical activity. A large number of talented scientists and teachers have been and continue to be engaged in the problem of innovative technologies. Scientific innovations that advance progress cover all areas of human knowledge. One type of social innovation is pedagogical innovation.
MATERIALS AND METHODS

Pedagogical innovation is an innovation in the field of pedagogy, a purposeful progressive change that brings stable elements (innovations) to the educational environment that improve the characteristics of both its individual components and the educational system as a whole. Pedagogical innovations can exist both at the expense of the educational system's own resources (intensive development path) and at the expense of attracting additional capacities (investments) – new funds, equipment, technologies, capital investments, etc. (extensive development path).

The main directions and objects of innovative transformations in pedagogy are:
- design of new models of the educational process;
- development of concepts of strategies for the development of education and educational institutions;
- updating the content of education, changing and developing new technologies for training and education;
- improving the training of teachers;
- ensuring psychological and environmental safety of students, developing health-saving technologies for training;
- ensuring the success of training and education, monitoring the educational process and development of students;
- developing textbooks and teaching of the new generation.

Progressive innovations arise on a scientific basis and contribute to the advancement of practice. In pedagogical science, a fundamentally new and important direction has emerged—the theory of innovations and innovative processes. Education reforms are a system of innovations aimed at radically transforming and improving the functioning, development and self-development of educational institutions and their management system. Innovative learning technologies include: interactive learning technologies and computer technologies. The main purpose of lectures on interactive learning technologies is to acquire knowledge by students with their direct and effective participation. Among the simulated problems, we can find scientific, social, professional, related to the specific content of the educational material. Setting the problem encourages students to actively think, to try to answer the question independently, causes interest in the material presented, activates the attention of students.

A discussion seminar involves a collective discussion of a problem in order to establish ways to solve it reliably. The discussion seminar is held in the form of dialogical communication of its participants. It involves high mental activity, inculcates the ability to conduct a debate, discuss a problem, defend your own views and beliefs, and Express your thoughts concisely and clearly. The functions of the actors in the discussion seminar may differ. Educational discussion is one of the methods of problem learning. It is used when analyzing problem situations, when it is necessary to give a simple and unambiguous answer to a question, and alternative answers are assumed. In order to include all participants in the discussion, it is advisable to use the method of cooperative training (educational cooperation). This method is based on mutual learning when students work together in small groups. The basic idea of educational collaboration is simple: students combine their intellectual efforts and energy in order to complete a common task or achieve a common goal (for example, to find solutions to a problem).

Project-based learning technology helps to create pedagogical conditions for the student's creative abilities and personality qualities that are necessary for creative activity, regardless of the future specific profession. Computer-based learning technologies are the processes of collecting, processing, storing, and transmitting information to the learner via a computer.

The use of computer technologies in the system of professional education contributes to the implementation of many pedagogical tasks. Innovative learning technologies that reflect the essence of the future profession, form the professional qualities of a specialist, are a kind of training ground where students can work out professional skills in conditions close to real ones.

The use of modern educational technologies ensures the flexibility of the educational process, increases the cognitive interest of students, and increases their creative activity. Thanks to the introduction of modern learning technologies in the educational process, children with disabilities have a greater chance to acquire the necessary skills for further life and successful adaptation in society, and to increase the level of motivation for learning. In my teaching practice, I use the following innovative educational technologies:
- health-saving technologies;
- project activity technologies;
- educational;
- correctional;
- information and communication;
- research technologies;
- personality-oriented;
- game;
- technology of the teacher's portfolio. Now let's look at each technology separately. Health-saving technologies: their main goal is to develop a child's conscious attitude to health and human life, to accumulate knowledge about health and to develop the ability to protect, maintain and preserve it. Forms of work are: - gymnastics (morning, eye gymnastics, breathing gymnastics, finger and dynamic gymnastics); - physical education classes;
- sports holidays;
- physical culture minutes between classes, dynamic pauses;
- walks;
- relaxation. Project activity: its meaning is to create a problem activity that is carried out by the child together with the teacher. The knowledge that the child receives while working on the project becomes his personal property and is firmly fixed in the existing system of knowledge about the world around him. The main goal of the project method is the development of a free creative personality, which is determined by the tasks of development and research activities of children.

Projects differ:
- by the number of participants: individual, paired, group, frontal;
- by duration: short-term, medium-term, long-term;
- by priority method: creative, game, research, information;
- by subject: include the child's family, nature, society, cultural values, and more. Information and communication technologies have received their natural development in our "advanced" age. A situation where a child would not know what a computer is almost unreal. Children are drawn to acquiring computer skills. With the help of exciting programs to teach reading and mathematics, to develop memory and logic, children can be interested in "science". The computer has a number of significant advantages over the classical occupation. Animated images that flash on the screen attract the child and allow them to concentrate their attention. With the help of computer programs, it becomes possible to simulate various life situations. Depending on the child's abilities, the program can be tailored specifically for him, that is, to focus on his individual development.

RESULT AND DISCUSSION

Examples of forms of training using information and communication technologies: Lesson-visualization-presentation of the content is accompanied by a presentation (demonstration of educational materials presented in various sign systems, including illustrative, graphic, audio and video materials). Practical training in the form of a presentation-presentation of the results of project or research activities using specialized software tools. Tasks of teachers: to keep up with the times, to meet the needs and capabilities of each individual child.

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- by duration: short-term, medium-term, long-term;
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- by subject: include the child's family, nature, society, cultural values, and more. Information and communication technologies have received their natural development in our "advanced" age. A situation where a child would not know what a computer is almost unreal. Children are drawn to acquiring computer skills. With the help of exciting programs to teach reading and mathematics, to develop memory and logic, children can be interested in "science". The computer has a number of significant advantages over the classical occupation. Animated images that flash on the screen attract the child and allow them to concentrate their attention. With the help of computer programs, it becomes possible to simulate various life situations. Depending on the child's abilities, the program can be tailored specifically for him, that is, to focus on his individual development.

- selection of illustrative material;
- exchange of experience, familiarity with periodicals;
- registration of group documentation, reports;
- selection of materials for classes;
- familiarity with scenarios;
- creation of presentations Correctional technologies: their purpose is to remove the psycho-emotional stress of students. Types:
  - technology of musical influence (music therapy);
  - art therapy;
  - fairy-tale therapy;
  - color therapy. Cognitive research: the main goal is to create an experimental activity in which the child is an active participant. The child's direct participation in the experiment allows them to see the process and results firsthand. When organizing these technologies, students are offered a problem that can be solved by researching something or conducting experiments. Methods and methods of organization of this activity are:
  - conversations;
  - observations;
  - modeling;
  - fixing of results;
  - Didactic yoke, game training and creatively developing situations;
- Labor orders, actions. Personality-oriented technologies - technologies that put the child's personality at the center of the educational system, providing it with comfortable, conflict-free, safe conditions for development. It provides for the development of individual educational programs that meet the needs and capabilities of each individual child.

The purpose of this technology is to create a democratic and humanistic partnership between the child and the educator, as well as to provide conditions for the development of the personality of the pupils. With a personality-oriented approach, the child's personality is put at the head of learning. Morning gathering as a way to organize free speech communication Goals and objectives of the morning gathering:
- develop skills (communication, planning your own activities, etc);
- learn to explain your emotional state in words;
- develop cultural communication skills (greetings, compliments, etc.);
- learn to formulate judgments, argue statements, defend your point of view;
- choose from personal experience the most significant, interesting events, tell them briefly, consistently and logically;
- learn to make choices, as well as plan your own activities. Game technology. Practice shows that the lesson with the use of game situations, contribute to the emergence of an active cognitive interest of students. These classes create a special atmosphere where there are elements of creativity and free choice. Developing the ability to work in a group: its victory depends on the personal efforts of each. At the same time, the games
have a lot of informative, educational functions. Among the game exercises, you can select those that help you identify the characteristic features of objects:
- that is, they teach you to compare;
- that help you generalize objects by certain characteristics;
- that teach the child to separate fiction from the real;
- that foster communication in a team, develop quickness of reaction, ingenuity, and more.

CONCLUSION
Communication with the computer causes students—first as a game, and then as an educational activity. In this case, the use of computer technology becomes particularly appropriate, since it provides information in an attractive form, which not only speeds up memory, but also makes it meaningful and long-term. The use of innovative pedagogical technologies contributes to:
- improving the quality of education;
- improving the skills of educators;
- the use of pedagogical experience and its systematization;
- the use of computer technologies by students;
- maintaining and strengthening the health of pupils;
- improving the quality of education and upbringing.

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FULL UNDERSTANDING OF THE ORIGINAL LANGUAGE IN TRANSLATIONS

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ABSTRACT
The paper discusses the importance of English and Uzbek literary translation and their general explanation. The paper discovers the meaning of the function of the language and its usage in this context. The most valuable and significant part is the identification how idioms reflect the ethnic and cultural identity of a given nation. literary translation can be analyzed in three different perspectives, i.e. the international, national and the local. The article proves the idea that literary translation is best option to learn about nation and its traditions. literary translations are signs of any nation and can illustrate history and culture of nation. English and Uzbek idioms were excerpted from a variety of lexicographic works and analyzed in a cultural perspective. Several English idioms have been studied and it becomes clear that they have a strong link with history and close tie with religion.

KEYWORDS: literary translation, idiom, national color it, culture, publishing house, illumination.

INTRODUCTION
There is no nation, no nation or anywhere in the world that does not have social contact with neighbors, does not learn from one another, and does not pursue material and cultural ties. The most important aspect of interparty dialogue. Yes, of course, we need to understand the language of that language in any relationship with the other linguistic nation; as it is seen, no social or cultural communication can be made in the translation. The proof of that is the legacy left by our scholars. Thousands of years ago, our great scholars, Ibn Ruid, Ahmad Farghani, Marvozi, al-Beruni, and many others, were engaged in translation work together with the creation of world-renowned works.

Ma'mun academy - doral - hikma has been known to have been an Oriental Translation School. The Arab, Persian, Indian, Turkish, Jewish and Greek scholars worked together to guide their translators from Central Asia.

Thanks to the efforts of the School of Oriental Translators, ancient samples of cultures have been translated into Arabic and have been found throughout the East. The Aristotle's and Plotan's ages, especially those of Ibn Sina and al-Ferghani, have reached us.

Our compatriot, Beruni, who has learned a few languages, translated several Kyoto fonts from Arabic into Arabic. His goal was to convey his people to science, culture and enlightenment, to familiarize them with the works of the neighboring peoples. Beruni criticized those who distorted the originals. In his book "India," he repeatedly mentions this.

Munis, Haidar Khorazmiy, Ogahi, Oybek, Shaykhzoda, G.Gulom, Mirtemir and other great poets have left an indelible mark on translation.

The publishing house "Vsemirnaya literature" (Petroleum Publishing) in Petrograd, 1919, aims to translate great examples of Eastern and Western literature into Russian and to attract the greatest poets and translators of the time done; A. Blok, VASmirnov, KN Batushkov.

The representative of the Russian literature, B.Pasternak, also showed excellent examples of artistic translation. He opposed the principle of literally, translating the European classics, including William Shakespeare and logan Wolfgang Gyoti.

The above-mentioned poets and scholars demanded that all translators keep their original content, style, alternative, and national color.
MATERIALS AND METHODS

Translation - is the type of creativity that is to create the same text in another language. Translation is the most important form of interethnic dialogue. The artwork and the restored text are subdivided into artistic translation, scientific translation, and other types. The interpretation of the original can also be interpreted as interpretation, interpretation, interpretation. Translated in ancient times, the communication between people of different tribes was due to the need for communication. The verbal type, called illumination, also saved.

For a more complete description of the translation. Transformation of the language of the same language as a translation into the second language, is called the process of change; the meaning of speech in this process should not be changed.

When translating each work, we use the term "adequacy". An adequate translation means that the content of the original text is accurate and explicit in the translation language, and its transformation into defiance. It is impossible to get an adequate translation into a word. Example: How are you? can not be translated as "How can you be?" by word-by-word. Depending on contextual content, we translate it as: How about your stuff? Are you healthy? How is it going?

The choice of any of these alternatives depends on the knowledge and skills of the interpreter.

If the stylistic function and the grammatical form of the two languages come to each other, then literally translate.

Example: I took the letter. I received a letter.

RESULT AND DISCUSSION

As you know, each language may be in verbal or written form. AMT and TT are used in the form of speech, depending on how prof. LSBarhudarov differs from the following main types of translations:

1) Written translation, that is, the written translation of the written text: Both languages - AMT and TT - are used in writing. This type of translation is usually the most commonly used translation type. This type of translation can be subdivided into smaller groups, depending on the text being translated. Famous translator AVFyodorov in this translation differs from the following groups:

a) translation of information texts, different documents and special scientific texts;

b) translation of social, political and publicist publications;

c) literary translation roles and responsibilities.

Depending on the level of literature, the species has been sorted out, and features that determine the uniqueness of each species have been identified. The focus was on the structure of the artistic work: the concepts of artistic expression and artistic content, their relationships were examined; character, fabula, node.

2. Compatible with each other in terms of meaning and stylistic function (word composition is rarely different), varies from lacquer to content.

Different alternative variants that differ: pigeon's milk // angin's finger; every dog is lion at home // everybody in his own home;

Without a full understanding of the meaning and stylistic function in the original expression, it can lead to inaccuracies in translation. Many of the narrations make the translation difficult.

3. False alternatives. In English and in Uzbek, there are also some frazeological expressions, their meanings seem superfluous to each other, but in fact there is a difference between them. Although the English phrase "each cook praises his own broth" seems to be a superficial alternative, the difference is that there is a significant difference between them. The English phrase goes on to say that everyone praises what he has and in the latter - he loves everyone who is close to him. Although the English phrase "each bird likes its own nest", in some texts such as this phrase, everyone loves their housewife, motherland, city, and homeland is an alternative option.

Consequently, the original and the verbal terminology can be translated in many ways without the deep analysis of the meaning and stylistic functions. And in many cases, the original meaning and the stylistic function can not be created.

The main feature of the literary translation is the artistic function of the language. The language becomes an art phenomenon in artistic work. The language of literary work is a separate element of "artistic, realistic". The transformation takes place in the image of this image, which is the process of reflection of the image. That is why the interpreter will re-perceive the artistic process of the events.

During the translation process, the interpreter is always in the mother tongue and the mother tongue is a tool for testing, which is a test criterion. For example, Khotb (translated by Nizamiy as "Khusrav and Shirin", "I cooked holbo from the Nizamy children")

Translation is a creative process, not a copy, but an interpreter tells you to be a skilled writer.

As you know, each language may be in verbal or written form. As AMT and TT are used in the form of speech, Prof. LS Barkhudarov differs from the following main types of translation:

1) Written translation, that is, the written translation of the written text: both languages - AMT and TT - are used in writing. This type of translation is the most commonly used translation type. This type of translation can be subdivided into smaller groups, depending on the text being translated.

a) translation of information texts, different documents and special scientific texts;

b) translation of social, political and publicist publications;

c) literary translation.
2) Oral or verbal translation - the oral translation of verbal text; both languages - AMT and TT - are used in oral form. There are two versions of this translation: serial translation and simultaneous interpretation. Once translated from the original text (in AMT), the text occurs after the full text or some of its parts are mentioned. Usually, a pause takes place after a few words, and then pausing after each statement is less common. Simultaneous translation is performed at the time the original text is spoken. More precisely, simultaneous interpretation is simultaneously accompanied by original text, but simultaneous interpretation in some parts of the talk is slightly less than a few words in AMT (just a few words), or goes beyond the AMT speech. The simultaneous interpretation of the translation will likely become possible due to the ability of the translator to anticipate yet unknown parts of the text.

Both of the verbal and interpreting texts - one after the other, and simultaneous interpretation - are characterized by specific psychological difficulties: the serial interpretation of well-trained and fast-acting memory and in simultaneous translation, the ability to hear and speak at the same time comes first. Special and long-lasting exercises need to be performed to simultaneously translate.

3) Written translation: written translation of the written text: AMT in written form, and TT in verbal form. In this type of translation, you can distinguish between two different translations: the translation may occur simultaneously from the original text (as in synchronous translation) or sequentially, after reading the whole text or every paragraph may increase. The first line of the verbal translation is also called "translate into paper" (Russian word "perevod s list"), and the second one is "readable translation" (Russian "perevod s podgotovkoy"). Of course, this name is conditionally understood because in this case "preparation" (reading and comprehension of the original text).

4) Oral or written translation: written translation of verbal text: AMT verbally, TT written. In practice, this type of translation is rarely found because the speed of writing text (on a manual, typewriter, or computer) is much lower than the verbal textual expression. For this reason, this translation is almost impossible. One example of the practical use of oral and written translation can be the dictatorial translation of some of the exercises in foreign language: oral texts (original text) are slowed down (in the "dictatorial velocity"), and thus provides written translation.

CONCLUSION
The translation of texts of Lexic and Freetriconic units belonging to the stylistic problems of the theory of translation is of paramount importance. The role of articles, wisdom words and phrases in the modern society's speech activity is vast. The meaning of the word and wisdom, the developmental pace of expression, will be influenced by its growing influence on all aspects of human activity.

We recognize the need to translate through Intermediary - English, and in our case, we use the mediator language materials for the necessity. We draw our conclusions as a result of checking the English and Uzbek languages.

The most pressing issue was the issue of frazeologisms, proverbs, wisdom words by most linguists who studied stylistic researches (including IAGerperin, AVKunin, NMShansky, IVArnolds and others). Some of the researchers in the Uzbek linguistics (including M.Sadriddinova, M.Abdurahimov, A.Mamatov, M.Hudoyberganova and others) recorded some of the features of frazeology. They pointed out a comprehensive study of all means of communication in this regard. However, not all of them are exactly written in Uzbek. Our research, however, is to reveal the peculiarities of the use of astrology,

Purpose and tasks. The main purpose of the research is to reveal the peculiarities of the English translation of articles in Uzbek. Spoken words and phrases. In order to achieve this goal, we have based our articles based on articles, words and phrases found in UtkirHoshimov's "Two Doors", and set out the following tasks:

Analyzing the translation of literary works in the learning process;
- Opening and studying of lexical and frazeological units of Ethics;
- to compare the morphological structure of the frazeological expressions in English with the Uzbek forms;
- analysis of ways to translate frazeologisms and others. Studying the aforementioned tasks will help to explain the peculiarities of linguistics in the frazeology unit and to analyze the specific features of translations from English into English.

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POLYSEMY vs HOMONYMY, THEIR STRUCTURAL & FUNCTIONAL FEATURES IN UZBEK AND ENGLISH LANGUAGES

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ABSTRACT
This article highlights the issues like polysemy, phenomenon close to polysemy-homonymy and states some differences and similarities in terms of structure and functions in Uzbek and English languages.

KEYWORDS: polysemy, structure, function, language, homonymy, etymology, core meaning, first language acquisition, second language acquisition.

INTRODUCTION
Taken from Greek, polysemy means “many meanings” and it possesses several distinct senses which, to some degree, share particular patterns in common. H urford defines polysemy this way: a case of polysemy is one where a word has several very closely related senses. In other words, native speaker of the language has clear intuitions that in different senses are related to each other in some way. Example: “Mouth” mouth of a person and a mouth of river. Here they both mean “an opening of from the interior of some solid mass to the outside”.

As defined in Wikipedia polysemy from Greek (polý-, “many” and sêma, “sign”) is the capacity for a word or phrase to have multiple meanings, usually related by contiguity of meaning within a semantic field. Polysemy is thus distinct from homonymy—or homophony—which is an accidental similarity between two words (such as bear the animal, and the verb to bear); while homonymy is often a mere linguistic coincidence, polysemy is not. In deciding between polysemy or homonymy, it might be necessary to look at the history of the word to see if the two meanings are historically related. Dictionary writers list polysemes under the same entry; homonyms are defined separately.

MATERIALS AND METHODS
A polysem e is a word or phrase which is the same in form and structure, having different, but generally related senses. To examine polysemy, the vagueness in the concept of the relatedness should be confronted, thus making it difficult to judge what polysemy is. One of the natural processes of a language change is to use pre-existing words in contemporary situations and in this sense to unearth where a word derives from can be useful in finding out polysemy in a context. Yet it is not the sole way this can be done. Since words may lose their root connections over time, the method which was once considered as a useful distinction of meaning may not remain so any more. Sometimes words which are obviously unrelated may boast one and the same original root and therefore testing a word to determine if it is a polysemantic one or not by observing its etymology is not a perfect way to do so. There are other ways for testing polysemy. For example, dictionary writers also often accept speakers’ intuitions to judge polysemy in circumstances where it contradicts etymology. There are many polysemous words in English language. As an example, the verb “to get” can mean “procure” (I’ll get the food), “become” (she got tired), “understand” (I get it) etc [3].

In Uzbek linguistics polysemy is seen as a unit which occupies a crucial role in any language given. To tell if a language has a rich vocabulary or not, it is essential to take into account not only the number of words or phrases it possesses but also the lexical meanings those words and phrases bear. This is to say, the way words have related senses, in other words, polysemy has a significant role to play in enriching the vocabulary of a language [4]. Therefore, polysemy should be studied in both practical and theoretical terms.

One question arises: “How can we decide whether a word is a polysemantic word or not?”. To
answer this, we will look at the statement made by Lyons. Professor John Lyons [2] stated the following features of lexical polysemy in the form of criteria:

<table>
<thead>
<tr>
<th>Three features of polysemy</th>
</tr>
</thead>
<tbody>
<tr>
<td>There must be a clear derived sense relation between the polysemic senses of a word.</td>
</tr>
<tr>
<td>The polysemic senses of a word must be shown to be etymologically related to the same original source word.</td>
</tr>
<tr>
<td>Lexical polysemy is a sense relation within a particular syntactic category, i.e. lexical polysemic senses do not cut across syntactic word class boundaries.</td>
</tr>
</tbody>
</table>

Polysemy occurs in the majority of languages and it is considered by linguistics as a useful phenomenon since it has a profound impact on enriching a language and rendering it, more or less, colorful. Polysemic words can be found in virtually all parts of speech and they possess a significant amount of space in a language as an independent unit. They are often seen in nouns and verbs and have either one and the same etymological source or closely related meaning which can be understood by the people who speak the language they occur in.

According to Uzbek linguists, words which can be used in two and more senses are called polysemic words which is “Ko’p ma’noli so‘zlar” in Uzbek language. It is said there is always a relation between the dominant sense and other senses that polysemic word possesses. And once that correlation is lost, a word is no longer regarded as a polysemic word.

There are several senses in any given polysemic word and one of the senses usually stands out as more dominant in comparison with other senses. That dominant meaning can be the one which has the highest frequency level and is considered as the default one. Several studies in first language acquisition (Mason et.al., 1979; Durkin et.al., 1985; Durkin et.al., 1986) and second language acquisition (Tanaka & Abe, 1984; Myers & Elliott, 1996) indicate the greater salience of one of the senses. In a norm-gathering study, Durkin and Manning (1989) asked a group of English native speakers to write “the first meaning that comes to mind” to a large number of English polysemous words. For most of the words, one of the meanings was written with greater frequency than other meanings. For instance, the “response” sense of the word answer was written by 81 subjects while the “solution” sense was written by only 18. It should be noted, however, that this is not simply a frequency effect. This meaning is also the semantic core from which other meanings derive. The “body part” meaning of the word head, for example, is the main meaning sense which has been extended to the senses “mind”, “pain”, “top”, “end of an object”, “the person in charge of a school”, etc.

The relation between the core sense and an extended sense is unidirectional: the core sense is implicated in the non-core sense, but the non-core sense is not implicated in the core sense. This has been shown in a study by Durkin & Manning (1989) who asked a group of native English speakers to rate the salience of polysemous meanings to the interpretation of sentences biased toward either the primary meaning (i.e. core sense) or a subordinate meaning [7]. The results indicated that the dominant sense was perceived as more salient for sentences biased toward a subordinate meaning than subordinate meanings for sentences biased toward the dominant sense.

When studying polysemy it is vitally important to note that there are some other phenomena which are very close to polysemy in terms of structure and functions in a sentence. Even though polysemy can, in most cases, be noticed and easily found with the help of intuitions, sometimes it can be hard to distinguish polysemy from several phenomenon which are very similar to it. These may include homonymy, synonymy and so forth. Below one of these phenomena, namely homonymy will be researched and some distinctions will be drawn accordingly.

RESULT AND DISCUSSION
Polysemy and Homonymy

It is usual to see people use polysemy and homonymy on a daily basis. Despite being the same in structure, homonymy boasts words which have unrelated meanings, while the converse is the case for polysemic words. There are two methods to employ to distinguish these phenomena from one another. First, the word’s etymology, that is, where it comes from, second, the word’s core meaning. Polysemous words are given one single entry, as they are supposed to have arisen from the same historical source and possess a core meaning. Each homonym receives a discrete entry, based on the statement that homonyms have arisen from different historical sources and that they do not possess a shared core meaning. It is stated that the progress of polysemy leads to homonymy, that is to say, as polysemy goes from specific to general, the correlation between senses fades away causing homonyms to come into existence. Some examples will be illustrated in both languages below:

- an Uzbek word “gap” meaning a (in English “sentence”) from a morphological point of view is a unit of a speech and there is its counterpart “gap” meaning “a small gathering between women or men to have a friendly talk and have a party together”. Though
they can be related to each other to some degree, the connection between them is lost and therefore is regarded as a homonymy not as a polysemantic word.

As an example for a polysemantic word is “ko’z” meaning “eye” in English. This word can be used in many senses as followings: odamning ko’zi (a person’s eye) buloqning ko’zi (the spring), derazaning ko’zi (casement window). Despite being used in different contexts, there is a slightly related correlation between these examples, making the word “ko’z” a polysemantic one whose meanings can be related to one another.

Some differences between homonymy and polysemy are shown and some examples from Uzbek language are analyzed above. Several English words will be used below to show the difference between these two phenomena: homonymy and polysemy.

- an English word “book” can be another good example to illustrate how different polysemy from homonymy. In one meaning, the word “book” means an object or, to be more exact, “a set of pages that have been fastened together inside a cover to be read or written in” as Cambridge defines it.

- on the other hand, in another meaning, the word “book” is employed as a verb meaning “to arrange to have a seat, room, performer, etc. at a particular time in the future” as is defined in Cambridge dictionary for Advanced learners.

As for a polysemantic word, the word “door” can be a good example. It has two senses:

a) The object which swings open to allow entrance, as in “Open the door”.

b) The opening created thereby, as in “Walk through the door”.

Here these two words used in different contexts are correlated to each other and can be sensed by a native speaker with the help of an intuition. Therefore this word can be counted as a polysemantic one.

CONCLUSION

What makes the process of distinguishing polysemy from homonymy a little bit confusing, causing people to mistake these two is their being the same in terms of structure. Both polysemantic and homonymous words are the same in form, yet what makes the difference between them is the meaning they carry. As for native speaker, this can be easier compared to non-native speaker since a native speaker of a language has some understanding of words and their closely related meanings. However, non-native speaker might find it challenging first to understand the word and its non-dominant senses, second to distinguish polysemantic word from a homonymous one.

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STRUCTURAL REFORMS IN THE DEVELOPMENT OF THE DIGITAL ECONOMY IN UZBEKISTAN

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ABSTRACT

The article examines the concept of the digital economy, definition of digital economy, technological developments specific to digital economy, development of digital economy, some indicators of communication and information, and state programs for the development of digital economy.

KEYWORDS: Digital economy, Digital technology, ICT (Information and Communication Technologies), Digital transformation, Electronic government, Cloud computing, Big data, Financial technology, Digital infrastructure

INTRODUCTION

Digital economy is rapidly entering the economy of many countries of the world today. Rapid development of digital technologies has led to the acceleration of the globalization of the economy. Their effective use in all spheres of the economy is becoming a popular demand today. Digital transformation is a fundamental tool for today's world that is rapidly changing.

Digital Economy is a business activity that is a virtual environment that creates products and services by providing accessibility for people and uses digital technologies every day to bring millions of links between people, businesses, devices, data and processes online. System. A wider range of economic activities is used as a key element in digitizing information and knowledge. It is used to collect, store and distribute data in digital form, cloud computing, big data, financial technology and other digital technologies, and social interaction to completely change the effect.

Advantages of digital economy are as follows:
- In the context of digital economy, the cost of searching for products is dramatically reduced as online purchases of any information are easier than offline;
- Consumption of goods in the digital economy does not reduce demand and quality of other products;
- Costs of transportation and dissemination of information on products in digital economy are zero;
- With the help of digital technology, the consumer can easily learn the character. This creates one-to-one markets on its own;
- Digital technology makes it easy to create brand and reputation;
- Digital economies traditionally cross borders in electronic form.

MATERIALS AND METHODS

The development of digital economy can have an impact on interstate business processes. Significant developments in the field of information and communication technologies can be seen in various fields of company's activity. There is an opportunity for online sales to sell their products worldwide. Companies that have small investment can develop and grow rapidly. The role of modern information technologies in the digital economy is enormous in increasing labor productivity and effectiveness in many sectors of the economy and reducing costs. Changes related to digital economy create the basis for new market rules for manufacturers and buyers. As a result, companies
need to look for new competition strategies and improve their competitiveness.

Over the past two years, consistent measures have been taken to develop digital economy in Uzbekistan, and e-commerce systems are being gradually introduced to government agencies and other organizations to provide e-document flow and services for individuals and legal entities. On December 28, 2018 the President of the Republic of Uzbekistan Shavkat Mirziyoyev addressed to the Oliy Majlis of the Republic of Uzbekistan. At the meeting, the Government was tasked to develop a Roadmap for transition to digital economy within 2 months. This is as follows: “We must design National Concept of Digital Economy which considers upgrade of all sectors of our economy with digital technologies. In this context, we need to introduce the Program “Uzbekistan Digital - 2030”. Digital economy will facilitate at least 30 percent increase of GDP and significant reduction of corruption. It’s being also proved by the analysis of reputed international organizations”. [1] Analyzes by authoritative international organizations also confirm this. Therefore, it is necessary to carry out digital transformation in the economy, to develop national information technologies and to attract investments in this direction,” said President Shavkat Mirziyoev.

RESULT AND DISCUSSION

The draft resolution of the Cabinet of Ministers sets out the following directions in the development of digital economy in the Republic of Uzbekistan: [2]

- identification of the necessary information systems and resources of the state and economic bodies, local authorities in the field, implementation of software and electronic services;
- Creation of favorable conditions for attracting foreign investments in the country by organizing the digital economy, the information technology market in the country, including the technology parks and hockey-clubs based on public-private partnerships;
- coordination of modern telecommunication infrastructure, development of communication technologies and networks, introduction of modern telecommunication services;
- raising the digital economy through the introduction of electronic services in the field of public administration and economy, development of e-commerce and software market;
- Development of proposals for the development of the national Internet segment, organizational, material and technical support of digital media content;
- Development of “intelligent systems” for urban and regional infrastructure management, in particular residential and communal services, transport logistics, safe and “smart cities”;
- Improving the system of training qualified personnel.

1-table.

![Graph showing the total number of Internet users](source: The official website of the Ministry for the Development of Information Technologies and Communications of the Republic of Uzbekistan, www.mitc.uz)
Digitalization began to be used not only in the economy but also in the system of public administration. The modern mechanisms of public-private partnerships aimed at improving the effectiveness of mutually beneficial cooperation in the implementation of socio-political and socio-economic development of the country have been introduced. Improvement of the "e-Government" system, enhancement of the quality and effectiveness of public services, and the possibility of using this service by the population and entrepreneurship are envisaged. Adoption of the Resolution of the President of the Republic of Uzbekistan from November 21, 2018 N PP-4022 "On Measures for Further Modernization of Digital Infrastructure for the Purpose of the Development of Digital Economy" creates conditions for the rapid development of digital economy, further improvement and use of public administration expanding opportunities and using modern infrastructure. [3] According to the Resolution of the President of the Republic of Uzbekistan "On Measures for the Development of the Digital Economy in the Republic of Uzbekistan" dated July 3, 2018, the National Agency for Project Management under the President of the Republic of Uzbekistan shall introduce and develop a digital economy, and agreed to the agency's proposal to establish a digital economic support fund for the Digital Establishment in the form of government institutions. All this is a clear indication of the great attention being paid to the digital economy in our country.

CONCLUSION
In conclusion, for the development of the digital economy, which is the driving force of the innovative
economy in our country, it is necessary first of all to increase the speed in our country. In addition, increasing the knowledge and skills of working with computers and computer programs is one of the important factors in the development of digital economy. There are a number of practical tasks to be implemented. In particular, the creation of free computer courses, the development of electronic trading platforms, the improvement of the electronic document flow system, and provision of the population with more and more extensive information on innovative digital technologies (such as cryptocurrency, innovative forms of government services). Implementation of the above-mentioned instruments plays an important role in increasing the role of digital economy in the country, accelerating the exchange of information. The widespread use of households in the Internet also plays a key role in increasing the efficiency of the industry and industry, reducing the costs, decreasing the time and increasing the share of innovative technologies in the economy. Based on these reforms, the development of the digital economy creates a basis for our country to be ranked among the economically developed countries of the world.

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MODIFICATION OF GENRES IN MODERN JOURNALISM

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ABSTRACT
Despite the fact that the number of genres decreases from year to year in the practice of national journalism, it is not right to say that they do not exist at all. Because in journalism, genres are of great importance and it is necessary to use them constantly. This article analyzes the role of genres in journalism, the changes taking place in the system of genres.

KEYWORDS: genre, journalism, modification, classification, changes in genres.

INTRODUCTION
The author who creates a publicistic work expresses in bright colors the real landscape of reality, using a palette of genres, like an artist. In journalism, you can create an original journalistic work, enriching the desired genre with elements of another genre. Journalistic genres differ from literary genres in that they rely on their authenticity and factness. According to theorists, the emergence of genres is a natural need of society, and life itself requires certain ways of reflecting reality. Genre, as Tertichniy said, is a specific form of composing live material, which he considers as a specific combination of compositional and structural characteristics. In the genre, the author deals not with random collections, but with a system of form elements. Genre is also a kind of solution to the problem facing the creator. This allows us to consider the genre as a historical stagnant, that is, a constant typological phenomenon that is characteristic of different periods and directions. The factors that form the genre include: the content of the creative work (subject, problem), explanation of events, description of characters and images.

Today, modern genres of journalism are presented as a complete and developed system. A characteristic feature of this system is that it is characterized, on the one hand, by stability, on the other-mobility. However, the journalism of the information age is going through different stages of development. Strict distribution by genre exists only in theory. In principle, the transition to each other, an introductory feature is inherent in genres, and in practice, too, the boundaries between genres are completely erased, especially in "tabloid" publications. In recent years, the concept of genre diffusion has also been formed, which has increased the use of visual techniques in the genre, in particular from the image, as well as other genres that play a supporting role in the text.

MATERIALS AND METHODS
"Journalism cannot exist without a division into genres. Otherwise, it will not be journalism but eclecticism," said researcher A. Tertychny. Therefore, in the creative process, there is a need to create a system of genres, that is, a set of elements that interact with each other, form a certain integrity. Leading theorists of journalism A. Tertichniy, L. Kroychik, S. Gurevich has developed several classifications of genres. For example, A. Tertichniy understands stagnant types of publications that combine figurative and compositional features of journalistic genres. These attributes are described as factors that shape the genre. These include the following:

- **The subject description** (a phenomenon, situation, process, person)
- **Target visualization mechanism** (function), (characteristic, estimation, prediction, determination of cause-and-effect relationships.)
- **Methods of description**: empirical (experience, observation, evaluation, working with documents) and theoretical (induction, analysis, synthesis, historicity method)

The significance of these factors in the formation of the genre is not the same. Each of them plays an important role in shaping a particular genre. The method of classification of A. Tertychny's genres is based on modern traditional journalism:

Informative. They make up the main part of media materials. Such texts are the main carriers of
instant information that allows listeners to constantly track the most important and interesting events in a particular area of reality. These are: a message, an informative report, an informative interview, a blitz request.

**Analytical.** More public attention will be focused on the analysis and research of news in focus, rather than on the interpretation of current events, processes, and situations. These are: analytical report, analytical correspondence, analytical interview, analytical survey, comment, review, article, review, journalistic inquiry.

**Artistic and publicisms genres.** Authorship, journalism. Such genres are more evident, first of all, in increasing the need for language, artistic image, emotional richness of texts and the author’s desire to generalize reality. These are: essay, feuilleton, pamphlet, parody, story, anecdote.

This traditional method of classification, which was in the tradition of the 80-ies of the XX century, is now significantly outdated. In the 1990s, new approaches and concepts appeared in the genres system. Then various parameters were taken as a methodological basis, in particular, the genres were divided into groups according to the method of collecting and processing information: "reporter journalism", "investigative journalism", "comment journalism" and others.

**RESULT AND DISCUSSION**

Lev Kroychik believes that in the 90's the poetics of the journalistic text changed radically: instead of the press, which was ideological, there was a free press in terms of thought and style. The changes that occurred in the genres system had a special impact on each genre. It was during this period that transformational processes took place in genres. This coincided with the period when new genres appeared in journalism, when traditional views on journalistic genres changed radically, the old ones were lost, and new approaches to transmitting information appeared. L.E.Kroychik argues that genre boundaries at that time were revised. In particular, some genres, such as reporting, interviewing, correspondence were categorically excluded from this - informational, and this - analytical genre. Even if some genres disappeared from the newspaper page (for example, an essay), they were replaced by a group of other genres; penetration of the Internet laid the foundation for a variety of genres; the concept of "genre" approached the concept of "text".

Modern journalism is becoming more and more animated, with its own characteristics. She started working with her audience in a dialogue mode (Live broadcast, direct communication with the Studio, the possibility of voting) . the use of elements of fiction in publicistic texts increased: the level of transmitting words to the audience with expressiveness and emotional coloring increased. as new information technologies developed (in particular, the advent of the Internet), the way opened to a greater simplification of genres, to a wider use of mass media.

With the growing competition between media editors and periodicals, the speed of information transmission of journalists is estimated by the following characteristics: speed, exclusivity and responsiveness. Therefore, the genre of comments occupies a special place on the pages of the press. It is worth noting that traditional methods of classification in journalism are now significantly outdated. Today, in modern journalism, a journalist tries to cover three important components in the process of preparing a text: a) to inform readers about the event and the problem; b) full awareness of the situation with legibility C) distribution of the event in fragments (in the form of a fragment) or in detail as a whole; d) emotional impact on the audience. This means that currently journalists are trying not only to inform the audience about what is happening, but also to turn the reader into a loyal customer of the newspaper or a permanent observer of the TV channel. Thanks to such changes observed in the genres of the new era of journalism L. Kroychik divides texts that appeared in the press into 5 groups:

1) quick news – all types of messages;
2) operational research-interviews, reportage, report;
3) research news - correspondence, review;
4) research - article, letter, review;
5) genres in research form (artistic and journalistic) - essay, feuilleton, pamphlet.

Based on the above as the main trends in the formation of the genre it is appropriate to cite:

* transition from one genre to another genre. In the system of genres of journalism, such large-scale genres as essays and essays are distinguished. Currently, the average position is held by a group of analytical genres;

* before new genres appear, journalists must develop new ways to learn about reality in other areas of human activity, such as a sociological survey or forecast-articles;

* "erasing" the boundaries of the genre leads not only to the development of hybrid genre forms (for example, a investigative essay), but also to the mutual enrichment of existing genres.

* as genres continue to expand and transform, they retain basic typological features such as membership, consistency, individuality, and diversity.

The scientist Semyon Mois Gurevich supported this question from the other side. It recognizes the concept of "genre" as a stable characteristic of the type, composition, style, and content-themeatic features of describing reality. Therefore, the typology of genre separation by scientists differs from that of other theorists. According to Gurevich, all genres of journalism are divided into:
Despite the richness of the classification method in journalism, journalists and researchers prefer the traditional classification method. We see that in one circuit, where high technologies are developing, some genres begin to prevail over others. As Internet journalism developed, information genres ranked first in terms of distribution. Artistic and journalistic genres have remained in history. It is now very rare to find a feuilleton or pamphlet in the press. According to researcher Vitaliy Tretyak, only 4 independent classical genres have been preserved in modern journalism - news, reports, interviews and articles. All other genres became service genres.

CONCLUSION

Unlike other art forms in this area, mixing genres is considered unacceptable. For example, in the visual arts, when the attachment of genres is historically identified and perceived as an inevitable phenomenon, in journalism, the "purity" of the genre is considered as a qualitatively characteristic feature. After all, the "washing" of existing boundaries in the genre can only be observed in low-quality TV shows, radio programs, and tabloids. This means that journalism loses its quality and dignity and leads to an increase in everyday topics in the life of society. Naturally, since the public consciousness is weakened by the formation, this can negatively affect the consciousness and outlook of people.

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CREATING A MATHEMATICAL MODEL OF MOVEMENT IN THE PROCESS OF CLEANING COTTON FROM DIRT

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ABSTRACT
This article suggests a mathematical model of the movement of cotton fiber on the surface of a separative cleaning cotton seeds. This technology describes profoundly the natural state of the cotton seeds being cleaned, and the mathematical appearance of the movement, taking into consideration the forces that affect the cotton fiber during cleaning.

KEYWORDS: cotton ginner, lattice surface, dirt chamber, refined cotton chamber, friction surface on net surface, movement of cotton piece on colored surface, velocity of cotton slices on the surface, integration, weight force, normal reaction force, differential equation of movement of a piece of cotton on a net surface.

INTRODUCTION
Today, the development of the society puts the important tasks of cotton processing, improvement of existing techniques and technologies in the field of production of high quality fiber that meets international standards. In its position, the improvement of spinning and weaving equipment also indicates the need to pay special attention to the quality of cotton fiber.

By scientists Ataullaev A.Kh. and Ravshanov N, the research work was conducted mainly in a separative way, with theoretical and practical research on the technological process of cotton sowing [1,8].

The research by R.Muradov, A.Karimov, E.Tadayeva, Z.Abdukhakharov and M.Ismanov mainly focuses on the "Separation of dirty particles in the raw cotton particles moving on the surface with curved contours". In this work, a theoretical study of the mechanical (shock) release of large and small impurities in the raw cotton raw materials was performed to determine the amount of fibers emitted from the purification zone [2,3,7,9,10,11].

In addition to the mentioned sources above, our research has focused on the fact that major contaminants in cotton less or hooks in the raw cotton, however minor impurities are deeply embedded in the raw cotton. The removal and separation of such minor contaminants from the cotton, which, in turn, requires sophisticated vibration (horizontal and vertical vibration) and, necessitates the development of a new device with sloping surface surfaces.

This vibration-proof cotton gin was designed by us and shown below (Figure 1).
1. Movement Provider
2. Flat surface (in vibration motion)
3. Protective and Referring Surface
4. Protective surface
5. Dirty camera
6. Headphones (ellipsoids move full surface)
7. Purified Cotton Drop chamber

Figure 1. Cotton cleaning equipment.

The process of cleaning cotton in this unit is as follows.

In this device, patches are cleaned using a completely new technology - a separator (based on the method of passing cotton seeds through a series of surfaces). Separation is supposed to maximize the use of the lattice surface to prevent impurities, that is, the first piece of cotton to be applied to the protective surface (4) before moving it to the surface; reverses direction.

In the next process, the cotton swab passes through the 3-4-5-6 coils of the device and is collected into a purified cotton dropper chamber (7) and transferred to the desired location. During the separation, the impurities in the cotton seeds are removed from the device by a special camera (5).

This device not only removes minor impurities in the cotton, but also improves the level of cotton sludge. As a result, the natural condition of fibers and seeds remains and their quality is improved.

MATHEMATICAL MODEL OF MOVEMENT OF A COTTON SLIP ON A FLAT SURFACE

We draw the following line to develop a mathematical model of the cotton swab that runs along the surface of the unit (2) during the survey (Figure 2).
The OA surface of the entire surface of the cotton gin is a sloping plane, forming a $\beta$ angle with a horizontal plane. On the strip surface the cotton barrel began to move peacefully (point O) and A shot at $v_A$ point and speed (Figure 2). The coefficient of slip friction of a strip surface is equal to $f$. Considering the cotton spots as a material point and not taking into account the air resistance, we can determine the time at which the cotton swab has been moved from the start to its full surface and the speed of the h fall.

The OA of a cotton swab is on its way to the plains The following forces are affected: gravity $mg$, normal reaction force Friction force on the N and slip Fish (Figure 3) OX1 axis, with a sloping trajectory of cotton slopes Let's create a differential equation of motion:

$$m\ddot{x}_1 = \sum_{k=1}^{i} F_{F_k}$$  \hspace{1cm} (1)

$$m\ddot{x}_1 = mg\sin\beta - F_{ish}$$

Here:

$$F_{ish} = fN$$

$$N = mg\cos\beta$$  \hspace{1cm} (2)

(2) The equation: (1) If we take it to:

$$m\ddot{x}_1 = mg\sin\beta - fmg\cos\beta$$

$$\ddot{x}_1 = g(\sin\beta - f\cos\beta)$$  \hspace{1cm} (3)

(3) We integrate it twice:
\[ \frac{dv_{x_1}}{dt_1} = g(\sin \beta - f \cos \beta) \]
\[ dv_{x_1} = g(\sin \beta - f \cos \beta) dt_1 \]

We integrate:
\[ \int dv_{x_1} = \int g(\sin \beta - f \cos \beta) dt_1 \]

We can take this result by integrating it once:
\[ v_{x_1} = g(\sin \beta - f \cos \beta) t_1 + C_1 \tag{4} \]
\[ v_{x_1} = \frac{dx_1}{dt_1} \tag{5} \]

We integrate again by putting (5) to (4):
\[ \frac{dx_1}{dt_1} = g(\sin \beta - f \cos \beta) t_1 + C_1 \]
\[ dx_1 = [g(\sin \beta - f \cos \beta) t_1 + C_1] dt_1 \tag{6} \]
\[ \int dx_1 = \int [g(\sin \beta - f \cos \beta) t_1 + C_1] dt_1 \]
\[ x_1 = g(\sin \beta - f \cos \beta) \frac{t_1^2}{2} + C_1 t_1 + C_2 \]

Integral variables S1, S2 into equations (4) and (6). Let's set the initial values of the variables: Initial values: \( x_1(0) = 0 \) at \( t_1 = 0; \) \( v_{x_1}(0) = 0 \)

The result is:
\[ s_{x_1}(0) = C_1 = 0 \]
\[ x_1(0) = C_2 = 0 \]

The following equations are:
\[ v_{x_1} = g(\sin \beta - f \cos \beta) t_1 \tag{7} \]
\[ x_1 = g(\sin \beta - f \cos \beta) \frac{t_1^2}{2} \tag{8} \]

Cotton slices \( t_1 \) sec to pass through OA. If time goes by, in equations (7) and (8), \( v_{x_1} = v_A \) and; \( x_1 = 1. \)

Thus:
\[ v_{ad} = g(\sin \beta - f \cos \beta) t_1 \]
\[ x_1 = l = g(\sin \beta - f \cos \beta) \frac{t_1^2}{2} \tag{9} \]

(9) The equation of the OB from the equation.
\[ t_1 = \frac{v_{ad}}{g(\sin \beta - f \cos \beta)} \tag{10} \]
We will now examine the movement of the cotton barrel in the AB. At this point, the cotton slip is only affected by its weight. The differential equation of motion is written as follows:

\[m\ddot{x}_2 = 0, \quad \ddot{x}_2 = 0\]

\[m\ddot{y}_2 = mg, \quad \ddot{y}_2 = g\]

(11)

\[\ddot{x}_2 = 0\]  We will integrate the equation two times:

\[\frac{d}{dt}v_{x2} = 0; \quad \frac{d}{dt}v_{x2} = 0; \quad v_{x2} = C_3; \quad (12)\]

\[\frac{dx_2}{dt} = C_4; \quad \frac{dx_2}{dt} = C_4 dt_2; \quad \int dx_2 = \int C_4 dt_2; \quad x_2 = C_4 t_2 + C_5\]

(13)

Initial preconditions for the movement of cotton linter AB are: equal to \(t_2 = 0\) da \(x_2(0) = 0\), starting speed \(A_{x2}\) projection in equal to \(v_{x2}(0) = v_{A\cos \beta}\). Adding these values to equations (12) and (13), we find the integral variables:

\[C_3 = v_{A\cos \beta}; C_4 = 0\]

Thus:

\[v_{x2} = v_{A\cos \beta}\]

(14)

\[x_2 = v_{A\cos \beta} t_2 \]

(15)

Afterward \(\ddot{y}_2 = g\)  We will integrate the equation two times:

\[\frac{d}{dt}v_{y2} = g; \quad \frac{d}{dt}v_{y2} = gt_2; \quad \int dv_{y2} = \int gdt_2; \quad v_{y2} = gt_2 + C_5; \quad (16)\]

\[\frac{dy_2}{dt} = gt_2 + C_5; \quad \frac{dy_2}{dt} = (gt_2 + C_5) dt_2; \quad \int dy_2 = \int (gt_2 + C_5) dt_2; \quad y_2 = \frac{gt_2^2}{2} + C_4 t_2 + C_6\]

(17)

To determine the integral variables C5, C6, we use the initial conditions:

\[t_2 = 0 \quad da \quad y_2(0) = 0; \quad v_{y2}(0) = v_{A\sin \beta}\]

(18) terms Let's take it (17):

\[C_5 = v_{A\sin \beta}; C_6 = 0\]

(19)

Then:

\[v_{y2} = v_{A\sin \beta} + gt_2\]

(20)

\[y_2 = v_{A\sin \beta} t_2 + \frac{gt_2^2}{2}\]

(21)

Given that \(y_2 = h\) in the equation, the cotton swab Determine the time \(t_2\) takes to get through AB:
\[ h = v_{A} t_2 \sin \beta + \frac{gt_2^2}{2} \]  

(22)

OB Time to go through the range:

\[ t = t_1 + t_2 \]

(14), (20) From the equations, the velocity of cotton fiber for \( t_2 \) time \( A_{c2} \). We define the projections in the coordinates of the Moon2:

\[ v_{A2} = v_{A} \cos \beta \]

\[ v_{B2} = v_{A} \sin \beta + gt_2 \]

Calculate the velocity of the cotton barrel at the DC plane (The next is the surface):

\[ v_B = \sqrt{v_{A2}^2 + v_{B2}^2} \]

Using the mathematical model described above, the movement of the cotton slices on the net surface of the cotton gland depends on the movement time and the velocity of the next lattice, the slope of the net surface relative to the horizon and the initial velocity \( v_A \) calculations.

**CONCLUSION**

In our developed mathematical model, we can make several experiments by adjusting the slope angle to find the optimal value so that no slip can be formed on the surface, and its stability on the surface. In this process, due to repetition of the cotton surface on different surfaces, minor impurities are removed from the surface holes and the quality of the cotton is improved.

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USING THE INFORMATION ON A HISTORY OF CHEMISTRY IS A FACTOR FOR DELIVERING QUALITY AND EFFICACY OF EDUCATION

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ABSTRACT
This article discusses the history materials in higher education institutions and the need to improve the course of chemistry History. As students learn in-depth knowledge of science as well as its history, it equips them with modern knowledge and helps them to understand modern chemistry. Based on the interviews with the students, we conclude that this course will be studied by future professionals with great interest and that the knowledge gained will contribute to the development of science. The textbooks and manuals recommended by this course do not provide sufficient background information for thinkers, past, present, and future of chemical science and industry in Uzbekistan.

KEY WORDS: History of chemistry, principle of historicity, stoichiometric, chemical evolution, synthesis art.

INTRODUCTION
While studying each subject, its path to emergence, development, and its present-day status, stages of this path, the contribution of researchers, and professionals are a very important factor in the study of all the creatures. It is important to know how you approach them. Therefore, the study of the history of science is a key factor in the development of this discipline as a holistic system based on comprehensive, in-depth and detailed, logically integrated data. [4] The Law of the Republic of Uzbekistan 'On Education' emphasizes students' national and spiritual self-awareness, the ability to effectively use modern science and technology, to master all disciplines and to become future professionals. [3]

The course "History of Chemistry" is included in the curriculum as a subject of study in chemistry faculties of higher educational institutions of the Republic of Uzbekistan. "History of Chemistry" should play an integral role in the system of chemical sciences. This course is intended to establish the links between the natural sciences and the humanities.

Early chemical concepts began with the discovery of fire. Cooking, smelting metals, making ceramic products, fermenting sugars and making cosmetics are the result of that trend. Cosmetics were used long before writing. In the Middle East, cosmetics have been a major part of personal hygiene. The Egyptians paid special attention to the freedom and beauty of their bodies. This was important to all the members of society. "The oil is the medicine of the body," writes Amenhotep-III (1411-1375), and Pharaoh Seti-I (1313-1292) issued a special decree to supply his army with cosmetic oils. [5]

Chemical knowledge is not readily available, and it is a historic fact that their vast reserves have been created by the work of our thinkers who have been researching the field of chemistry. The history of the formation of chemical thinking is a controversial process. The creative work of thinkers and the history of science is a complement of knowledge we need to know. Such knowledge is not only important in the worldview; it is also a great source of educational opportunities. [6]

For students, the history of chemistry is not only a new source of evidence and information but also an important source of knowledge in the field of chemistry. The history of chemistry has come a long way in the difficult and contradictory way. Because at the heart of any successes are triumphs and losses. At the core of successes and failures is the mysterious power of excitement and critical thinking.

MATERIALS AND METHODS
The history of chemistry and related learning materials make it possible to perceive this subject as a dynamic process of living and continuously updated and ever-changing flows of hypotheses and viewpoint, and ideas.

I think it is time to include such information in the textbooks for undergraduate students’ chemistry curriculum and programs. Indeed, there is a great deal
of sense at the bottom of the decision to organize science circles and under the motto "Let's be worthy successors to our great ancestors" starting from the new 2019/2020 school year, using interactive methods to turn schools into a center of spirituality and enlightenment, culture, and to implement "five initiatives". [1]

Even in the golden fund of the wisdom of the wise people of Uzbekistan, there is a great deal of clear meaning. One of them is "It is a debt for everyone knowing his/her seven ancestors." It must be understood "Start knowing the history form yourself!"

One of the world-renowned writers, the great poet Alexander Sergeyevich Pushkin's statement that "Respect for the past is the main different aspect from being wildly" has not lost its value. The famous inscription of the well-known commander of the second world organizer, Georgiy Konstantinovich Zhukov, says: "Whoever shoots the ball in history will catch it in the future cannon." It is permissible for us to accept history without changing it.

RESULT AND DISCUSSION

Many peculiarities are not sufficient for students’ knowledge of chemistry in existing DTS and textbooks, which, in my opinion, are the most important and relevant at this time:

1. Introducing more historical materials into the content of chemical education and reflect on the achievements of chemistry, industry, and technology over the years of independence.
2. Equipping students with historical data using modern pedagogical technologies and elements of pedagogical skills that are embedded in the learning process.
3. Systematically integrating the issues related to the long history of chemical knowledge and their genesis to the content of all organizational forms of teaching.
4. The scientific and methodological analysis of a new generation of textbooks in chemistry, and more emphasis on the improvement of the texts of lectures and their implementation in the pedagogical process.

[8]

With the ever-growing base of Chemical Science, there has been an issue of "information surplus" in chemistry education. The question of how much to teach is a new dimension in chemistry methodology, which is hard to solve. The reason is the lack of a stable and state-written textbook on chemistry history and teaching methods, the introduction of DTS in chemistry fields in higher education, and some other reasons for the need for a new approach to teaching history of chemistry courses.

In this process following things should be taken into account:
- In-depth analysis of teaching materials;
- Grouping by their importance;
- Classification of chemical knowledge based on their vital needs;
- A fair assessment of the profits and losses of chemistry for industrial and community members, and the reduction of such concerns as fear of chemistry.
- To achieve a wide range of chemical literacy, requirements such as the fundamental revision of chemistry courses in higher education should be reconsidered.

Since the materials related to the long and arduous history of chemistry are not adequately reflected in the educational process, there is a need to pay close attention to the principles of history in teaching. Unfortunately, the textbooks of the chemistry and the actual lecture texts do not give students the required information.

That is why universities will have to change their attitude toward chemistry history courses in undergraduate study. The students are struggling to reinforce the principle of historicity in other courses. This is because of the lack of resources to help them, the lack of basic knowledge in chemistry in the underlying higher education, the overlap of historical events, the course books, and manuals, and the squeezing of historical compounds due to the increase in evidence and theoretical and experimental resources in chemistry.

In modern chemistry, great strides have been made in the study of simple and complex substances. In:
- The basic stoichiometric laws have been discovered;
- A large fund of evidence was collected;
- increased their analysis;
- The concept of chemical evolution and structure is explained based on thermodynamics and kinetics;
- A new understanding of the chemical bond and the nature of the substances are formed.
- the art of synthesis has emerged;
- the laws of chemical progression and regression are revealed;
- and finally, chemical intervention in human life has intensified.

The turn of chemistry into production has increased the number of artificial and synthetic substances, resulting in a powerful technology.

The well-known Russian chemist DI Mendeleev, the inventor of the circular law, once said that "Experience is the art of interrogation of nature." Michael Faraday, a famous British chemist, and physicist with great talent have been trying to get free fluorine for 50 years, and this is the only case that the scientist failed. Henri Muassan, a young French chemist who succeeded in doing this, was awarded the Nobel Prize in Chemistry in 1906. [10]

CONCLUSION

1. American chemist Robert Woodward, who "elevated chemical synthesis to the art," in exchange for
laboratory synthesis of various complex amino acids and antibodies, such as strychnine, cholesterol, cortisone, chlorophyll "a" and "b", deservedly deserved. (1965) [11]

2. The Italian historian Mikel Vjua, in his fundamental work, referred to such successes as a clear and appropriate expression of "subjugation of matter." It is worth noting that, thanks to the hard work of such expert scientists as R. Woodward, D. Barton, G. Braun, G. Wittig, and M. Shemyakin, organic synthesis has become a "large-block building" field of purpose. [13]

In summary, obtaining modern knowledge without a good study of the history of chemistry is a bias. Long and hard, successful and unfortunate, effective and ineffective work in the history of chemistry should be judged fairly and impartially on the scales of history, left by thousands of researchers, enthusiasts and simply for fun. It is also necessary to organize the education and upbringing of chemistry based on the historical view of a subject. We believe that it would be appropriate for the participants of continuing chemistry education to create textbooks on chemistry in the state language, to include information and materials related to the name of our country and its scholars, and to make objective and accurate corrections in the history.

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THE USE OF PHYSICAL EXERCISES IN FORMING HEALTHY LIFESTYLE OF SCHOOLCHILDREN

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ANNOTATION
Owing to the physical exercises, confidence in the ability to recover from illness, students’ endurance, willpower, persistence, and habit to cope with the routine of exercise, tackling with the problems, especially the ability to endure the body’s internal environment, appearing because of the movement begin to appear. Only in this case, the effective influence of the exercise will begin to be important.

KEYWORDS: Physical exercise, endurance, determination, will, strength, obesity, overweight, cardiovascular diseases, X-ray, chemicals (benzene, gasoline, alcohol, drugs and etc).

INTRODUCTION
It is no secret that not healthy and ill students have very slow and inadequate physical movement and action. First of all, parents do not allow their child to do different actions. The child, who is afraid of parental discipline is less motivated to act physically. For those students, the moderate order of action at first seems overwhelming. Therefore, the main tasks of a physical education teacher and a health worker are to incorporate the importance of selecting exercises for each child's ability, taking into account the illness, and developing a set of exercises, as well as regular exercise in each student's mind. [1] Owing to the physical exercises, confidence in the ability to recover from illness, students’ endurance, willpower, persistence, and habit to cope with the routine of exercise, tackling with the problems, especially the ability to endure the body's internal environment, appearing because of the movement begin to appear. Only in this case, the effective influence of the exercise will begin to be important. [2,3]

OBJECTIVES
Cardiovascular diseases
In almost all types of cardiovascular diseases, the usage of healthy physical training is recommended. However, the type, the form, the norm and extent of the exercise should vary drastically depending on the type of illness, its nature, course of attack, duration, its feature of being in birth, or survival. There are genetic and non-genetic heart diseases among the specific vascular diseases [7,9].

Genetic heart illness is caused by an incomplete heart that is not developed in the mother's womb. Non-genetic type is a heart disease that has been linked to a long-standing rheumatic disease. As mentioned above, both diseases are a result of impaired cardiac valves. Birth defects are known from the first months of the baby's life. The shape of the valves is determined in specialized hospitals, by examining the heart and circulatory system using various medical devices. One of the congenital defects of the heart is the failure of intermolecular and interstitial wall holes in the mother's abdomen [5,6].

Moreover, in medical literatures it is commented that there are plenty of other defects in the cardiovascular system. According to medical researches, genetic research has revealed that genetic factors in the development of congenital Heart defects, especially in this regard, can be caused by relatives’ marriages. When a pregnant woman often suffers from anemia and other oxygen deficiencies, she may have infections such as measles and flu, as well as exposure to radiation (x-rays and other), chemicals (benzene, gasoline, alcohol, drugs).

Medical studies have also shown that if a pregnant woman is malnourished and lacks vitamin A, E, etc., endocrine disorders may appear in women [8,10]. It is proved that the disorders related to heart valves, which is non-genetic, such as dysfunction and contraction of heart valves are mainly due to rheumatic disease and exacerbations, with excessive physical load and heavy static exercises leading to increased cardiac muscle and pathological enlargement of the ventricles. In addition, malnutrition may be caused by a lack of micronutrients in the heart. In recent years, thanks to the great advances made in cardiac surgery, surgical treatment of genetic and non-genetic defects has been widely applied.
The treatment of heart disorders by using the above-mentioned methods requires the development of a range of therapeutic interventions for the treatment of heart defects from physical education specialists, and medical personnel, which, by their effectiveness, can have a positive effect on the recovery of a child's activity. It is no secret that after surgical treatments of heart defects the child's activity will be drastically reduced, medical staff and physical education specialists taking into account the individual characteristics and physical training of the child should develop and monitor their performance regularly. During preparation and transfer to the main, the organism's response to pre-and post-workout normalized loads is considered to be consistent and self-treated, also the exercise is recommended [4].

RESULTS

Obesity and Overweight

Excess fat accumulation in the skin and around some internal organs can be seen in 10-30% of school age students. Initial ointment is caused by poor nutrition and less effort than the body needs. In addition, there are likely to be hereditary factors, economic conditions of the family, and low mobility of parents. Secondary obesity can be caused by impairment of endocrine gland function (especially thyroid gland deficiency) at birth. In other words, this form of obesity is linked to the functioning of the central body government. 83.7% obesity in children and adolescents does not depend on the activity of the glands.

This is most common among schoolchildren with a 10-50% overweight level of 1-11. It has been established in medical research that if it begins in infancy, it is exacerbated in adulthood, resulting in diseases such as cardiovascular, diabetes, high blood pressure, and atherosclerosis [5].

Treatment of overweight schoolchildren has its own unique and difficult sides. Some parents feel happy about their children's situation. School students, nurses, and physical education teachers often neglect such students. Adolescents with III- to IV-degree obesity mostly address to the doctor. That is, they complain of fatigue, headaches, heart disorders, abdominal pain, sweating, thirst, nausea, but not complaining about excess body weight. Increased disease leads to increased blood pressure and disorders of the vegetative nervous system in general. 80% of such students attend only physical education classes, 20-25% of such student attend to the classroom activities and various extracurricular activities.

Unfortunately, it is not regular. According to sociological research, 70% of our schoolchildren attend music, painting, drawing, learning foreign languages, and sewing classes. Their gymnastics and fitness activities were not included in the agenda at all. Playing games and exercising in the open air is not regular. According to the researches, no one in the family of elementary students is involved in morning gymnastics, nor does it involve children when they are doing exercises. In short, the use of the healing physical strength is not regular. According to the results of the questionnaire answers, elementary schoolchildren are limited to physical education, with less mobility, less active play, and playing with less active people like themselves.

In general, limited mobility, at least inadequate physical labor in the family, is gradually affecting students' mental health and behavior. These elementary schoolchildren are hardly able to meet the requirements of the program in physical education classes, and from the early age of 12-13, they lag far behind their peers in terms of endurance and speed. In particular, the gymnastics section of the program fails to meet the learning criteria of acrobatics, climbing, exercises in gymnastics, jumping, and running for short distances. Inability of these students to perform various activities exacerbates obesity [9,10].

DISCUSSIONS

It causes various changes in the functioning of the vegetative system, metabolism and energy.

Basic Treatments for Overweight Children:

1. **Energy Efficiency through Balanced Nutrition;**
2. **Strengthening Regular Exercises**

It has been determined in the medical researches that following the proper nutritious rules and the use of physical exercise are very useful in the first and second stages of the disease. Treating primary outcomes of weight gain is a long process. It should be done in a child-friendly setting - in school and family. Most girls tend to eat less during puberty, it seems to be the main source of treatment for them. Interviews with obese students in middle and high school indicate that they do not eat more than their peers. However, they had consumed too much food in the family before adulthood [3,4].

In physical training classes, such students mostly refuse to perform some coordinated, agile, quick workouts under various pretexts, even though they are fit enough to do such exercises, they do not do it, girls mostly feel shy to do them. According to observations conducted by step-counter, in elementary schools obese students tend to be almost equal in their physical activity compared to their peers, while middle and high school students are one time less active, especially girls. Body weight increased rather than height. 44-58% of elementary grade students spend 2 hours of their free time in front of TV, while middle and senior students spend 3 hours watching TV.

In the case that the process of overweight is not prevented in time, it can aggravate the disease in three stages: non-complication leaving, transient and complication leaving that occur in boys at the age of 9 and for girls at the age of 9-11. The main forms of physical education in the organization of physical activity for the students who are gaining weight are to organize motional process that is closely associated with their body functions, lessons, extracurricular activities, physical education groups, and physical fitness activities.
Especially for such students, regular exercise in the morning gymnastics complex increases the desire for movement.

The teacher, who will teach the students during the lesson, will create the morning physical training exercises and parents should monitor their regular performance. Exercises should be about lifting the figure, running slowly, and running as you walk, bending, stretching, exercises for abdominal, waist muscles, and moving the limbs and arm muscles.

Moreover, movements such as hanging and balancing complement it. It is also helpful to include exercises that sit back and forth in the morning gymnastics [5,6]. The set should be structured so that it would be easier for students to grasp and develop their interest, rather than involve a highly coordinated effort. Examples of sitting exercises: The carpet should be lied on the floor or a gym bed is used.

RESULTS

A month training program for the children at the age of 6-10

Special Morning Exercises

1. Initial Situation (I.S) - stretching legs to the floor, sitting and lying on the back and bending forward, grasping heels.

2. I.S.- lying on your back, hands close to the body, raising feet without bending them; equally raising and dropping legs for 3-4 days, after 2-3 days dropping legs extremely slowly.

3. I.S.- kneeling on, leaning forward and away with arms, stretching the knees by giving the weight to the hands, for 4-5 days stretching legs back from this position and coming back to the initial situation; after 6-7 days, bending and stretching the arms, doing the above

4. I.S.- lying on the floor, hands are closer to the body, performing cyclists’ foot movements, after 4-5 days raising feet and doing the scissors movement, after 6-7 days, without bending feet lowering them up, doing swimmer’s movement.

5. I.S.- keeping your body up leaning on your hands and feet, moving back and forward, after 4-5 days, keeping the balance while walking on one foot and one arm, during the second week, rotate the body as you go in the same order (right and left).

6. I.S.- lying on the floor, your hands are close to the body, bending your feet over your head, and tipping the floor, and slowly lowering it, in the second week, raising the legs by 90° and lowering to the right and left, respectively.

7. I.S.- lying on the floor raising your feet and hands, your head, breathing. In the second week, stretching your head and body back, leaning on your hands shaking the legs backwards, respectively.

8. I.S.- sitting on the floor, stretching your hands to the side, back and hugging your body. In the second week, one arm is behind the head and the other on the waist, changing the position of the arms respectively.

It is very useful to add at least 2 of the abovementioned exercise samples to each morning’s gym. If the complex is replaced in every 1 month, it will be satisfactory and effective. When recommending home-based exercises, we need to give them an understanding of the benefits of avoiding trauma, which are done slowly and at a moderate pace. Of course, the activity of the antagonistic synergist muscles must be taken into account when designing the complex of exercises. Overweight students are encouraged to jump on a rope, play volleyball elements, swim and, if possible, play games for independent exercise. Students who do not participate in extracurricular activities should be practicing almost 90 minutes each day of independent physical activity. Of course, except for morning gymnastics [4,5].

A month training program for the obese children at the age of 6-10

1. Moving by raising knees high.

2. I.S.- Legs are widely put, hands on the waist, bending the head forward and backwards, till the cheeks touching the chest.

3. I.S.- Legs are widely put, hands on the side, rotating arms back and forth.

4. I.S. – Legs are closely put, hands down, raising and lowering hands as if you were gaining fruit.

5. I.S.- Legs are widely put, hands are on the waist, stretching your arms to the side and turning the body to the left and right.

6. I.S.- Legs are widely put, hands are lowered, trying to touch the toes by moving the hands down.

7. I.S.- Legs are closely put, hands are on the waist, sitting by doing knees apart, hands on the side, bending knees fully.

8. I.S.- Sitting on the seat, hands on the waist, bending as the spring forward and holding the toes.

9. I.S.- Placing your hands behind your head as in the previous exercise, and bending the head forward and backwards, till the cheeks touching the chest.

10. I.S.- Lying on the floor, raising your legs 90° and slowly lowering. When feet touch the floor, you should make no noise.

11. Run 15 to 30 seconds in a standing position, with a slow walk.

12. Exercises of breathing control.


14. Jumping on a rope with both legs and one leg for 15-40 seconds (slower for rheumatism).

It is desirable that the program be conducted daily at moderate or low speeds during the absence of physical
education classes at school. If there are conditions after workouts, taking a shower, wiping your body with a wet towel and other activities can be effective. If the student's day stays in an extended group, it is helpful to have a movemental schedule and participate in all physical activities. It is also beneficial to have family walks (5-8 km) once a week. The carry-on baggage for girls is 5 kg and for boys 7 kg [6,7].

A month training program for the children at the age of 13-17, who are on the 1st and 2nd level of obesity

1. Moving your feet and hands in different ways, up to 1 minute.
2. I.S - Main Standing (M.S.) Placing hands on the chest, turning the body to the left and right, stretching the arms to the sides, 6-8 times
3. I.S. M.S.-Stretching hands forward and raising feet respectively touching the palm of the hand, 6-8 times.
4. I.S. - The legs are widely put, hands are lowered. Bending the body forward, touching hands on toes, 8-10 times.
5. Jumping up and clapping hands. 5-10 times, 2-3 times with rest.
6. Slow walking for 2-3 minutes, fast walking for 500 m. up, rolling running, up to 500 m.
7. Play volleyball, handball or basketball for 10-15 minutes.
8. Jumping on a rope with both legs and one leg, bending knees

After the above actions, take a shower if possible. Swim every two to three weeks. At weekends go for hiking (7-12 km). The carry-on baggage for girls is 7-8 kg and for boys 10-12 kg. It is useful to have a rest every 30-40 minutes during family lessons and to have about 3-5 morning exercises or exercises that are of interest to the child. In this area, the student should be taught that he or she needs to exercise less active part of the body during the lesson preparation. This issue should be taken into account when girls are sewing in the family, which means that physical activity is relatively low due to physical labor [3,4].

Swimming pools are being set up in each city and regional centers as part of modern sports complexes for swimming. For those who are overweight, organizing a 45-minute swim twice a week is justified. It consists of a basic, final part of the preparation, the first part can be up to 10 minutes, the content of which is general and specific, and the pulse can be increased to 120-130 times per minute [8].

The main part is about 25-30 minutes, its functions are adaptation of the body in the watery environment, movements of different intensities in water, performing swimming techniques, etc. It takes about 2 minutes in the first 1 sessions to adapt the water environment and then 5 minutes for each session, during which you will need to use a variety of referral exercises to gradually master the swimming technique. In adapting to water and mastering movement techniques, firstly, we use boards. At startup, we pay attention to the feet movement and when it comes to breathing, it is important to gradually adjust your breathing to your feet movements. If you teach by keeping the board on the far side of the body after 10-15 exercises on the half or upper side, and train their feet, then the easiest way to swim is acquired after 18-20 exercises. The last 5 minutes of the main part are spent repeating the techniques learned [10].

<table>
<thead>
<tr>
<th>Age</th>
<th>Daily norm Carbohydrate gr.</th>
<th>Protein gr</th>
<th>Fat gr</th>
<th>Daily power requirement (k / cal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-9</td>
<td>270-300</td>
<td>65-85</td>
<td>65-70</td>
<td>1800-2000</td>
</tr>
<tr>
<td>10-12</td>
<td>320-350</td>
<td>90-100</td>
<td>75-80</td>
<td>2000-2500</td>
</tr>
<tr>
<td>12-13</td>
<td>350-400</td>
<td>105-110</td>
<td>85-100</td>
<td>2500-3000</td>
</tr>
</tbody>
</table>

The pulse does not get too high during swimming on a board, but without the board it changes highly. For this reason, obese students are encouraged to swim using a board.

Numerous methodological literature has recommended that experienced teachers give all students a way to show them how to swim, and to teach students how to swim properly and technically.

As the student body becomes accustomed to exercise, it is preferable that they be trained in general physical training (GPT) groups. If swimming lessons are taught from the 1st grade at school, it is appropriate for them to swim from the 2nd grade once a week and do so many times with GPT. In the 3rd grade classroom, exercising twice a week in the GPT group and in any sports club at the discretion of the student is shown in the methodological literature [7,8].
Table 2. Anthropometric norms of the child by age

<table>
<thead>
<tr>
<th>Age</th>
<th>Body weight/ kg</th>
<th>Height in/ cm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>7</td>
<td>21.6 – 27.9</td>
<td>21.5 – 27.5</td>
</tr>
<tr>
<td>9</td>
<td>26.1 – 34.9</td>
<td>26.6 – 35.6</td>
</tr>
<tr>
<td>10</td>
<td>30.0 – 38.4</td>
<td>30.3 – 38.7</td>
</tr>
<tr>
<td>11</td>
<td>32.1 – 40.9</td>
<td>31.7 – 42.5</td>
</tr>
<tr>
<td>12</td>
<td>36.7 – 49.1</td>
<td>38.4 – 50.0</td>
</tr>
<tr>
<td>13</td>
<td>39.3 – 53.0</td>
<td>43.3 – 54.4</td>
</tr>
<tr>
<td>14</td>
<td>45.4 – 56.8</td>
<td>46.5 – 55.5</td>
</tr>
<tr>
<td>15</td>
<td>50.4 – 62.7</td>
<td>50.3 – 58.5</td>
</tr>
</tbody>
</table>

CONCLUSION

It should be noted that the selection process for sports today does not apply to overweight students. First and foremost, these students should be involved in sports clubs at their school. If a school does not have a specific kind of sport at its school, a physical education teacher should help their pupil get involved with another school in the area. As these students engage in healthy physical activity, they are one of the factors that determine how to consume protein, fat, carbohydrates, and how much energy your body needs during the day, to maintain it, to develop a healthy lifestyle.

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THE ROLE OF SOCIOCULTURAL COMMUNICATION IN THE HUMANITARIAN SCIENCES

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ABSTRACT

In this article has been analyzed the role of socio cultural communication in the humanitarian sciences by the helping philosophical literatures and media materials as well.

KEY WORDS: communication, information era, virtual threats, worldview, youth, Internet, global community.

INTRODUCTION

In recent time’s information era, the population of the world cannot live without information and communication networks. The Internet, which is becoming a daily demand of humanity, has been expanding day by day and increasing the number of its users. According to the International Observation Institute Daily Alisha, by the beginning of 2018, for the first time in the history of the world, the number of Internet users has exceeded 4 billion. The number of Internet users increased by 250 million compared to 2017. The internet penetration rate is growing at least 20% every year, with Africa becoming the fastest growing region in the world.

The term “communication” is derived from two Latin words: sotthiasapo, which means the transfer of information, messages, and sottsag, which can be translated as “connect, make common”. Later, this word with minor transformations was borrowed by other languages. Already in the distant history, the understanding of communication as an infrastructure and as a social phenomenon, correlated with speech and other human activities, was shared. In the twentieth century, these trends persisted. They are reflected in modern reference books.

METHODS

In the modern world, the meaning of the word “communication” has acquired more strictly scientific outlines. So, in the Russian Sociological Encyclopedia edited by G.V. Osipova, this term is defined as “the transfer of information from one system to another through special material carriers, signals” [1].

In the Great Soviet Encyclopedia, the definition of communication can be found in several different articles. In the engineering context, this term refers to “communication lines, networks of the underground urban economy and transport”. From a sociological point of view, communication is seen as "the transfer of information from person to person." Communication can be carried out as in the process of any activity, for example. production, and using a specialized form of speech activity or other activities using signs. Animals have simpler, not symbolic, but signaling methods of communication [2, p.618].

A similar definition can be found both in the dictionaries of the modern Russian language, and in dictionaries and encyclopedic publications containing already outdated vocabulary. Communication in them is defined as a special form of communication, the way of communication, the exchange of information in society and (or) the animal world.

RESULTS AND DISCUSSIONS

It should be noted that, despite the differences in the interpretation of the term “communication” depending on the scope of its application, everywhere there is an indication of the process of exchanging information, transmitting messages. This can be considered the fundamental component of the concept under consideration. Any communicative activity is inextricably linked with the process of movement,
transmission, exchange of something [3].

The designated lexical meanings of the term correspond with the four areas of the possible manifestation of communicative activity. These areas include:

1. The transfer of information in human society, in the process of human social activity - social communication. This area is the area of understanding of the social sciences.

2. Biological interaction - biological communication. It is carried out in the living world with the help of various kinds of signals and other forms of information transfer. It is a field of study of biological sciences.

3. Ways of communication (air, water, land communication, networks underground utilities), form of communication (telephone, radio), other technical systems. In this case, we are talking about technical and technological issues of electronics, engineering, utilities economy, about such areas that are studied by the exact sciences [4, p.65].

4. Within the framework of communication theory, a definite system of categories has been formed. Depending on the considered level of the theoretical generalization of communicative knowledge, this system includes a set of necessary scientific concepts and terms. The most generalized is the very concept of communication. So, in the 19th century, this term was used primarily in the framework of engineering and technical knowledge and was associated mainly with military engineering communications, involving a set of "ways, roads, means of communication places".

At the beginning of the last century, the word “communication” began to be widely used in various fields of social and humanitarian knowledge. This concept takes on a social meaning within the framework of a general scientific terminological system. In the literature, an explicit identification of the general concept of “communication” with the more particular one, “social communication,” which is incorrect in terms of terminological rigor, is increasingly observed. Gradually, the biological and technical aspects of this term are leveled in the framework of the use of the word “communication” in the framework of social research.

One of the indicated ways of comparing these two terms is their almost complete identification within the framework of the socio-humanitarian context. Proponents of this approach are such famous Russian scientists as A.A. Leontiev, L.S. Vygotsky and V.N. Kurbatov. So, in a number of terminological dictionaries, the concept of communication is interpreted as "the way of communication, communication." According to researchers who adhere to this theory, semantically and etymologically, “communication” and “communication” are completely identical and can equally be used to describe the process of information exchange in human society.

CONCLUSION

It is worth noting that not all researchers agree with the hypothesis put forward about the relationship between communication and communication. Some, including A.V. Sokolov, in contrast, argues that communication is only one form of communication. At the same time, he proposes to base the classification of forms of communicative interaction on the goals of the participants in communication. Obviously, on the basis of this criterion, the following options for the relationship between individuals can be distinguished:

- the object-subject form of interaction is characteristic of imitation. In this type of communication, the recipient consciously chooses communicator as a role model. However, the object itself imitations at the same time may not even know about the fact of their participation in any or communication process;

- subject-subject relationship is expressed as a dialogue equal participants. It is this form of interaction between communication partners, according to Soloviev, is communication;

- the subject-object form of interaction is characteristic of management as one of the types of communication activities. As part of this type of relationship, the communicator perceives the recipient only as the object of informational impact, a means of achieving their goals. Also important concepts of communication theory are the concepts of “information”, “communication space” and “communication time”.

REFERENCES

ISSUES OF PREVENTING AND FIGHTING FROM THE DRUG ADDICTION AMONG YOUNG PEOPLE

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ABSTRACT
The article analyzes the ways in which the drug spread and its adverse effects, which are of concern and threat to the international community, are based on scientific examples. In addition, the article also describes the fate of young people who become victims of these drugs, especially young people.

KEY WORDS: Drug addiction, drug addiction, heroin, opium, Middle East region, Central Asia, South, West Asia, global, extremism, terrorism, arms trafficking, human trafficking.

INTRODUCTION
In the 21st century, the world has brought many unexpected and unexpected challenges to mankind. In some countries, science and technology have been making progress in science and technology, and young people in those countries have been able to achieve much technical and technological advancement. Growing up has created a number of problems. Consequently, there is an increasing number of diseases in these regions that are becoming an unrestrained global threat, such as extremism, terrorism, arms trafficking, human trafficking, drug addiction, and crime and evil. It is a pity that young people between the ages of 14 and 30 are the main victims of these diseases, and the world has been vigilant with regard to the education and development of young people. President Shavkat Mirziyoyev made the following remarks at the 72nd session of the UN General Assembly on September 19, urging people around the world to draw attention to the protection of youth from the global and global threats of extremism.

“The growing threat of terrorism in the world, especially in recent years, is an indication that the mainly violent methods of fighting against them are not justified”, he said. In this regard, it is often confined not only to the underlying causes of threats, but to their consequences. I think ignorance and intolerance are at the root of international terrorism and extremism. In this regard, the most important task is to educate and educate the people, especially the youth, on the basis of education. Most crimes related to extremist activity and violence are committed by young people under the age of 30. The youth of today's world is the largest generation in the history of humanity because they number 2 billion. The well-being of our planet tomorrow depends on the kind of person our children become. Our main task is to create the necessary conditions for young people to realize their potential and to prevent the spread of the “virus” of the idea of violence.

We believe that it is necessary to develop multilateral cooperation for social support of young generation, protection of its rights and interests. In this regard, Uzbekistan proposes to develop a general international legal document - the UN Convention on the Rights of the Youth, aimed at the formation and implementation of youth policy in the rapidly developing environment of globalization and information and communication technologies. In our view, the signatories should undertake a strong commitment to make this area
one of the most important and vital priorities of their social policy” [1, p.244].

METHODS
The proposal from the UN tribunal to prevent young people under the age of 30, who are victims of extremism and terrorism and drug addiction, to the nearly two billion people of the world, to keep them out of their control and to protect their rights and interests politically and socially. Hundreds of thousands of young people are victims of drug addiction, especially as a result of this addiction, aggression and untreated diseases that spread to the world.

Today’s plague is becoming ever more popular among young people. Increasing the role of international organizations in combating the negative effects of this malady has become a topical issue. In particular, the resolution of the General Assembly of the United Nations on December 7, 1987 (No.42 / 112). The International Day Against Drug Abuse and Illicit Trafficking is celebrated each year on June 26. The annual event is named separately, and the slogan of the 2019 event is “Listen First”.

According to the United Nations Office on Crime and Drug Control, the number of drug addicts in 2015 has exceeded 300 million in recent years. Consequently, the highest consumption of drugs is cannabis today. It was the first time a century ago, the cooperation in the fight against drugs began. In February 1909, representatives of 13 countries gathered in Shanghai to combat drug trafficking in Asia. Then a commission was established in Shanghai. Despite the measures taken, the UN General Assembly recognized that drug trafficking remains a problem in the world [2]. This problem is still considered a serious threat. According to the World Statistics, 1.3% of deaths between 15 and 64 are caused by addiction. Drug addiction is one of the 211,000 deaths a year. The average age of drug addicts in Europe is 35 years. According to experts, 1.6 million people will be infected by the drug. 7.2 million people are infected with hepatitis C. 1.2 million people suffer from hepatitis B.

RESULTS AND DISCUSSIONS
By the early 20th century, the plague that plagued humanity and the plague of humanity had spread to many parts of the world as a disease. Unfortunately, these drugs are grown and processed in neighboring Afghanistan, with the necessary chemicals being smuggled into the territory of our republic in various ways, smuggling through neighboring Kyrgyzstan and Tajikistan. As a result, drug addiction is growing in the population, especially among the youth. According to the Ministry of Internal Affairs of the Republic of Uzbekistan, Tashkent city police, 989 criminal cases have been initiated by the end of 2018, and more than 50 kilograms of various drugs were seized as evidence. In particular, in 2018, 121 drug-related cases were reported [3]. In our country, preventive and operative measures are being taken to prevent the drug addiction of young people and to eliminate them, especially the penetration and spread of drugs and synthetic drugs in the country.

Thus, in 2018 the number of crimes related to illicit drug trafficking decreased by 12% and amounted to 4,779. The number of drugs seized by law enforcement in 2018 declined by 41.2 percent to 1.17 tonnes. 20.6 kg of heroin, 254.7 kg of opium, 600.8 kg of marijuana, 61.4 kg of hashish, 227 kg of poppy, 165.7 grams of new psychoactive substances and 7,551 grams of tramadol. In 2018, the courts have dealt with a total of 2,876 criminal cases related to illicit drug trafficking, with 3,691 individuals taking appropriate penalties. Unfortunately, 208 of these criminals were women. 904 cases of poppy and cannabis planting have been identified during a large-scale “Black Medicines 2018” on a total of 2,664 square meters. In addition, in 449 cases 7.5 thousand sq. M. wild-growing marijuana plants have been identified and destroyed in the area [4].

In 2018, the number of drug addicts in Uzbekistan was 6,142 as a result of drug addiction. “The Central Asian region is a cross-border point for drug trafficking. In this regard, health and well-being are also shown to be sustainable for the UN’s sustainable development goals, and this requires first of all the drug addiction”. The UN’s development agenda until 2030 is based on the slogan “No one should be left behind” [5].

As a result of large-scale preventive and operational activities in cooperation with the Ministry of Internal Affairs and other law enforcement agencies, in 2019, 4611 drug-related crimes were detected and about 1 ton of drugs (131 kg of heroin and opium, 49 kg of hashish, 693 kg of marijuana, 62 kg of poppy and 19 kg of psychotropic substances, synthetic and narcotic drugs. In particular, on March 6 and 16, 2019, nine organized groups (one of them citizens of Tajikistan) were arrested in the Samarkand region for smuggling and selling large quantities of drugs from the Republic of Tajikistan, and 25.7 kg of opium were seized as evidence.
In Tashkent on February 3-21, nine members of the criminal group involved in smuggling of narcotic drugs from the Republic of Kazakhstan to the territory of the Republic were detained, 148,550 units of drugs “Tramadol” and “Phenazepam” psychotropic substances [6]. Currently, there is a number of official meetings between the CIS and Central Asian states on joint efforts to combat illicit drug and psychotropic substances in the protection of young people from the grave consequences of the drug’s plague. Therefore, the Agreement between the Russian Federation, Azerbaijan, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan on the establishment of the Central Asian Regional Information Coordination Center for Combating the Illegal Trafficking of Narcotic Drugs, Psychotropic Substances and their Precursors (Astana, 2006 24 July) on ratification, “On drugs and psychotropic substances”, “On citizens’ health”, “Food products” Adoption of the Law on Quality and Safety, “On the Treatment of Chronic Alcohol, Drug or Toxic Patients” is the most encouraging step towards building a healthy future [7].

CONCLUSION

In conclusion, Uzbekistan, where more than 50% of the population is under 30 years of age, has been making significant efforts to nurture and bring up a fully developed generation. The issue of youth has been raised to the level of public policy. However, the efforts of a group of criminal gangs that put their interests ahead of the development and prosperity of the country are trying to spur drug abuse and violence among the young people. Such a letter the movement will have a serious impact on the development and future of the state and society. Today, we aim to fight against ideas, ideas against ideas, and enlightenment against ignorance. We make a grave mistake, that is, irreparable error, if we are not vigilant in the face of the destructive ideas of criminal gangs, who are constantly vigilant and alert for their youth to be worthy of their ancestors.

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THE POLICY OF “RECONSTRUCTION” AND ITS PECULIARITIES IN THE SOCIO-POLITICAL LIFE OF UZBEKISTAN

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ABSTRACT
This article illuminated that the early 1980s, the social and political development of the Soviet Union began to show signs of decline. Therefore, a period of rapid decline in economic and social life began and also extensive development of the economy has resulted in more costs, and this has already begun to manifest itself in the political and social spheres were opened by the helping scientific literatures and archive documents as well.

KEY WORDS: policy, Uzbekistan, culture, ecology, education, industry, reconstruction, import, export.

INTRODUCTION
By the early 1980s, the social and political development of the Soviet Union began to show signs of decline. A period of rapid decline in economic and social life began. Extensive development of the economy has caused more costs, and this has already begun to manifest itself in political and social spheres.

Since Uzbekistan was a part of the USSR during the reconstruction period, there were realities inherent in the socio-political situation in other Soviet republics. By the mid-1980s, all the ministries and departments of culture, health, education, social services and all the plants and factories in Uzbekistan were headed by the Union Ministries. The Communist Party of Uzbekistan, the main political institution that governs the state of Uzbekistan, was a political organization within the regional jurisdiction of the RSFSR. Decisions of the Central Committee of the Communist Party of Uzbekistan were considered in the plenum of the Central Committee of the Communist Party of Uzbekistan, and its decisions were considered in the plenums of regional, district and city party organizations. Political, economic, social and other spheres were directly headed by district and city party organizations. The prospective development indicators of all five republics, including Uzbekistan, were approved by the State Planning Committee of the USSR, and no state organization could change it in Uzbekistan. The republic had to fulfill its annual and five-year plan, whatever its potential or capabilities. That is why in all of the Union republics, the implementation of plans was at the height of [1], [92].

METHODS
The new colonial plan for the deployment of productive forces was foreseen for the economy of the republic to be unilaterally oriented only on raw materials. As a result, industries in the country related to primary processing of raw materials have more developed. The share of finished goods in the industry was only 25% of the total output, and consumer goods production was only 40% of the average union level. Errors in the economy and specialization of production have led to an increase in the resource potential and environmental disadvantages of Uzbekistan, worsening of material and financial conditions [2], [625], [626].
In the 1980s, the social orientation of the economy was ineffective, and the neglect of the social interests and needs of the people became one of the characteristic features of this period. The Great Red Empire failed to create the country's ability to raise real incomes, improve living conditions, regular food, health care and health care, and the social policy in this area was driven not by the people's interests but by the will of the conservative party. Whereas during this period, the US spent $3,386 per pupil per year, $258 in the USSR, spending $2,885 in England, and $3,33 per child in the US $533. The USSR was the average of the Union, and the situation in Uzbekistan was lower than the average.

By the mid-1980s, Uzbekistan was ranked one of the last in the union in terms of socio-economic indicators. In particular, the gross national income throughout the country was twice lower than the Union average. Also, the food and social security of the population of the Republic declined. At the same time, Uzbekistan was forced to import food, agricultural machinery and even textile products. As a result, imports more than doubled exports, and estimates that milk, meat, eggs and fish and other key consumer goods accounted for more than half of the average EU per capita. The black market accounted for about 20% of Uzbekistan's total trade turnover as a result of the Center's failure to meet its basic consumer needs. Whereas the black market traded at a much higher price. This was one of the factors contributing to the decline in living standards [4], [31].

The center was mainly exporting raw materials from Uzbekistan. Equipment from the Center and other republics was supplied from Uzbekistan. This led to the growth of industry in the European Union, and forced the Uzbek industry to be in a state of recession.

**RESULTS AND DISCUSSIONS**

The adaptation of almost all cultivated fields to cotton fields has grown at an unprecedented rate. Only about 45-50% of the nitrogen fertilizers applied to cotton in the past have a beneficial effect, while the remaining 50-55% have been washed away from the soil, blown into the air and polluted the environment [5]. With the use of many toxic fertilizers, the pollution of the air, water, food, fruits and melons has threatened human health and created new diseases. During the medical examination of the population living in the Aral Sea region, 54% to 72% of the total population was identified. Of these, 50-63% were children [6], [51], the infant mortality rate increased significantly and the Republic rose to one of the highest rates in the world. In Uzbekistan, the under-five mortality rate is 37.7 per 1,000, and 52 in Karakalpakstan. The prevalence of handicapped children is 35-36% of the total number of sick children in Uzbekistan [7], [170].

Child and maternal mortality in cotton-growing districts have more than tripled in non-cotton areas. Oncological diseases were ten times more than the Union average [8], [52]. The number of suicides among women has increased as a result of hard life. The standard of living of our people has fallen several times lower than those of third world countries. The unpredictable and inappropriate use of water has led to the Aral catastrophe [9].

During this time, the same old policy continued to be more cultured and more thoroughly masked. In order to meet the ever-growing demand for raw materials in the European Union, Uzbekistan has also used the latest cotton production opportunities. As a result, the environmental situation worsened and labor became even harder. The standard of living of the population has become more difficult, and socio-economic problems have become more acute.

The Center's economic development programs, party and government decisions did not take into account the interests of allied republics. Even during the reconstruction period, the center was able to address the causes of the economic crisis in the Union to the allied republics and to ensure the consumption of consumer goods. In the republics, which have been accustomed to the distribution of the center's extensive consumer goods for 70 years, disruptions in the provision of basic foodstuffs have begun. Reform and democratization of the political system and the participation of the general public in political and historical processes have resulted in unexpected consequences for the Center [10].

Partial democratic freedoms, openness, and guarantees of self-government of the people during the “reconstruction” failed to radically improve the welfare of the population. Because the old methods of management, production and ownership were abolished and the new ones were broken, economic ties between the union republics were broken, the center's intention to reign again, the internal political struggles, the power struggle between the RSFSR and the union and its structures, aggravated the financial situation of the people. The shortage of consumer goods and foodstuffs has exacerbated, and prices have steadily increased.

During these difficult times, attempts by a group of members of the Central Authority - the Political Bureau of the Communist Party to attempt a coup on 19-21 August 1991 - showed that Uzbekistan could no longer be the vassal of the center. Some actions of the political forces that won the center, attempts to occupy the union structures without any agreement with other republics, the participation of...
some of the top leadership of the Communist Party in the coup, the suspension of the activities of the Communist Party of the republic have called into question the development of our republic. In addition, there was still a central position in the center that sought to maintain the old imperial relations with the republics.

At the same time, economic ties with the allied republics were severed, and economic ties formed over half a century were disrupted. The value of the rouble issued by the center has dwindled, and economic ties have sought to obtain economic resources through the exchange of natural goods, and have resisted the expropriation of their wealth. As a result, since 1991 all republics, including Uzbekistan, have begun to disobey the center and pursue their own national interests. The republic’s “parade of sovereignty” has begun.

There were also peculiarities of Uzbekistan’s dependence on the center. The economy of the republic during the Soviet period was viewed as part of a unified centralized economic system. The interests of Uzbekistan were rarely taken into account in the administration of the Center and its economic policy. The republic was developed as a favorable market for the finished product, supplying cheap raw materials and strategic mineral resources to the former Soviet Union. This condition required the republic to become an agro-economic entity.

Any attempt to alleviate the economic and environmental tension in Uzbekistan, national self-consciousness, the Center’s efforts to break down the pressure, the most appropriate and specific paths to the republic were considered “localism”, “nationalism” and severely eroded, even centralized. funding and resource constraints [11], [626].

Many industrial enterprises based in Uzbekistan were directly subordinated to the center and were not managed by the government. The country manages more economic activities, such as mining and primary processing of raw materials, semi-finished products, defense products, but all products manufactured in this area are exported. Most industrial enterprises produced their own goods not for the domestic market but for the center's exportation. Nobody knew about the statistics. In other words, the center is responsible for the income of national products [12].

The main purpose of the Union leadership was to create a unified national economic system. As part of this policy, industrial enterprises in Uzbekistan were established in terms of the transportation of natural resources from the Republic. The range of industrial products is limited, mainly for the production of construction materials, light industry goods and cotton fiber. During the period 1980-1990, cotton, light and textile enterprises accounted for 57.3% of total industrial production in Uzbekistan. In Andijan, Namangan, Ferghana, Tashkent, Samarkand, Khorezm and Bukhara regions, the number of unemployed increased due to the relatively small number of industrial enterprises relative to population growth [13].

Social life in Uzbekistan depended on cotton production, on the one hand, and industrial development on the other. Of the 1,267 large industrial enterprises operating in Uzbekistan in 1988, only 320 (ie 25.3 percent) were fully self-financing. These enterprises accounted for 55.7% of the total industrial output in the country. The rest of the enterprises (947, or 74.7%) delivered the remaining 44.3%, which is 0.7% less than the previous year. In 1988, 39.2% of the country's output was produced on the state order. The state orders for agricultural machine-building enterprises accounted for more than 90% of the total production output and 85% in the machine-building industry [14], [428].

In the late 1980s, the country was in crisis as a result of population growth, ie the integration of demographic and economic problems. The standard of living of the population was steadily declining. By 1988, income of the Central Asian population, in particular Tajikistan's 59%, Uzbekistan 45%, and Kyrgyzstan and Turkmenistan 37%, was below the subsistence minimum. Most surprisingly, the Union did not have a measure of poverty in the population [15], [4] by 1990, about 70% of the country’s total income had fallen below the subsistence minimum. Also, unemployment has been increasing year by year [16], [26].

The report of the German Institute for Socio-Economic Development in Central Asia evaluates the situation as follows: “By 1990, Central Asia was already in an unbearable social situation - widespread poverty and unemployment, housing shortages, education. As a result of the reforms of the early 1990s, we can say that the communist ideology was completely alien to our people and could not be reflected in the totalitarian society for more than 70 years. Because Marxism-Leninism, as an idea or ideology, was a complete doctrine of the national heritage, traditions and historical memory of our people. Communist doctrines are completely alien to the mentality of the Uzbek people. There were no social, political, economic or ideological conditions in Uzbekistan for the proletarian revolution and dictatorship [17].

The politics of pride, poverty, equality of all dependence on the power of the poor, the use of pressure, fear, and use of force among the people are in
crisis. By dividing society into polarized classes based on the criteria of wealth and poverty, the idea, ideology and worldview of forcibly mobilizing millions of people to build a fantastic communist society through artificial ways and means, such as creating artificial enemy images, has never really penetrated the nature of the Uzbek people. Although the people obeyed the party, the authorities and its bodies only as factors of organization and way of life, they were deeply aware of the socio-political and ideological goals of this system, both in their own life and in their own thinking processes.

CONCLUSION
In sum, the consequences of the reconstruction were as follows:
- The totalitarian regime in the USSR was abolished, the hegemony of KPSS in political life was eliminated;
- The USSR collapsed. On its territory independent states were established;
- The planned economic system is abolished, the conditions for market relations formation have been created;
- Pluralism in social and political life has been formed, a multi-party system has emerged;
- The Cold War policy has been abolished, and changes have been made in the deployment of world powers;
- The “socialist system of the world” was abolished.

All in all, in the late 1980s, the Republic inherited from the former Soviet Union the ideological monarchy, economic crises, people’s distrust of the state and the system, and the disintegration of the nation. In such a difficult and dangerous environment, the goals of development, such as solving the existing problems and mobilizing the people for national independence, were the priorities of the development agenda. In this difficult period of history, Islam Karimov’s election as president, his early work, and his early reforms to change social and economic life have given the nation a sense of hope for the future.

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ADMINISTRATIVE LIABILITY FOR VIOLATIONS OF ELECTORAL LEGISLATION AND ITS FEATURES

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ABSTRACT

The article covers the actual legal responsibility and consideration of the courts for violations of the legislation during the elections to the representative bodies of state power of the Republic of Uzbekistan or limitation of citizens’ voting rights in one way or another as well.

KEY WORDS: Elections, election commissions, voters, legal responsibility, administrative responsibility, courts.

INTRODUCTION

In the process of building a democratic legal state and modernizing the legal system of the state, radical reforms are carried out in the administrative law (responsibility), as with most basic legal branches. This branch of law is of paramount importance in maintaining the balance of public interest, in the organization and implementation of public administration, and in protecting the rights and legitimate interests of individuals and legal entities.

Administrative responsibility is a special type of legal responsibility and it has all the features. Administrative liability is established in accordance with legal norms, is applied for offenses committed by an individual and is expressed in the procedural sanctions imposed by the competent state bodies (officials).

METHODS

In addition to common administrative responsibilities, there are the following features:

Firstly, administrative responsibility is established both by laws and by-laws, that is, it has its own legal and regulatory framework;

secondly, the basis of administrative responsibility is administrative offense (in the case of violations of the law and misconduct);

thirdly, citizens and officials appear as subjects of administrative responsibility;

Fourth, administrative penalties are imposed for administrative offenses;

fifth, administrative responsibility is applied by a wide range of state bodies (officials) in accordance with the legislation.

Administrative liability generally arises when the requirements of administrative law are violated. But at the same time, the current legislation shows that administrative responsibility can be applied to violations of constitutional, labor, financial, land and other legal norms. This, in turn, indicates the inter-sectoral importance of administrative responsibility.

RESULTS AND DISCUSSIONS

of Ministers, decisions of provincial and Tashkent city councils of people’s deputies, governors of provinces and Tashkent city.

The legislation on administrative responsibility enforces the rights and freedoms of citizens, the protection of property, state and public order, the environment, social justice and legality, the timely and objective consideration of administrative offenses, as well as the prevention of such violations; to educate citizens in the spirit of adherence to the Constitution and laws of the Republic of Uzbekistan.

The legislation on administrative responsibility is based on the principles of legality, equality of citizens before the law, democracy, humanism, justice and inevitability of responsibility for guilt. As with any legal liability, the factual basis of administrative responsibility is a violation. According to Article 10 of the Code of the Republic of Uzbekistan on administrative responsibility, an administrative offense is illegal, intentional or careless (aggression or negligence) encroaching on the person, citizens’ rights and freedoms, property, state and public order, natural environment, which are subject to administrative liability) is an action or inaction.

In accordance with the Law of the Republic of Uzbekistan “On Introduction of Amendments and Addenda to Some Legislative Acts of the Republic of Uzbekistan” dated September 4, 2014 [2], the Administrative Code of the Republic of Uzbekistan was first introduced filled with chapters. This chapter provides eight articles (Articles 51.2 - 51.9) that provide for administrative liability for possible electoral violations. In this case, the law clearly states to whom and where to apply in case of violation of rights and legitimate interests of participants and subjects of the electoral process.

The current legislation guarantees the right to appeal to a higher election commission or court, as a rule, on decisions and actions of election commissions. It is noteworthy that guarantees of all rights and interests of our citizens cannot be imagined without judicial independence. In this context, as President Shavkat Mirziyoyev said in his address to the 27th anniversary of the adoption of the Constitution, “Ensuring genuine independence of the courts is our highest priority.

In particular, the court must not allow any official to become an agency that can be used by anyone. Therefore, it is necessary to strengthen the responsibility for interfering in the court proceedings or pressure on the court”[3].

In his appeal to the Oliy Majlis, President of the Republic of Uzbekistan Shavkat Mirziyoyev said: “Let government officials understand this: the issue of judicial independence will remain under the personal control of the President. Every step of the court should make sure that justice is prevailing in Uzbekistan. Otherwise, as the great German philosopher Immanuel Kant puts it, “when justice is lost, there will be nothing left to determine the value of life”. We must never forget this fact. Judges in Uzbekistan should be strong advocates of the law and strong pillars of justice”[4].

Indeed, courts and judges must be fully independent in their activities, and only obey the law and take fair, well-grounded and lawful decisions. Only then will people's trust in the judiciary and the judiciary increase, while the worst vices, elements, and misery in society will be eliminated, and our society will grow on the principles of justice.

In our society, all matters, in particular, may apply directly to the courts without having to appeal to a higher election commission over the concerns of election commissions. However, failure to submit a complaint to a higher election commission does not preclude the right of the interested party to apply to the court.

In accordance with the current Election Code, joint sessions on the election of members of the Jokargy Kenes of Karakalpakstan, local Councils of relevant provinces, Tashkent city, as well as districts and cities, as well as decisions of the Central Election Commission of the Republic of Uzbekistan the Court of Appeal. Because they are the highest instances, there is no higher election commission that can assess the legitimacy of their decisions.

Bodies of political parties nominating candidates for deputy, candidate candidates, proxies, observers and voters may appeal decisions of election commissions to a higher election commission or court within ten days after such decision has been taken. Appeals against decisions of election commissions are usually filed with the administrative courts at the place of responsibility. Joint meetings and decisions of the Central Election Commission shall be appealed to the Supreme Court of the Republic of Uzbekistan within ten days after the decision. Of course, the current legislation clearly sets out the procedure and timing for the consideration of such complaints by the courts. That is, courts consider these complaints within three days of receipt of the complaint, and at least six days before the election. For example, if a voter fails to review or unreasonably refuse to submit a request for correcting an error or inaccuracy in the voter list within 24 hours, preventing the right to early voting or using the right to vote, to apply to the court for non-consideration or refusal.

Considering the requirements of the applicable law, article 51-4 of the Code of Administrative Offenses violates the rights of a candidate, trustee,
observer or an authorized representative of a political party - that imposes a fine on officials of five to ten times the minimum wage. Here is another point. In other words, in the election process, there are cases of spreading false information in order to discredit candidates or political parties. Our legislation also provides liability for this type of offense. For example, Article 51-6 of the Code of Administrative Responsibility establishes the responsibility for this type of offense. According to him, deliberately publishing or otherwise spreading false information about a candidate or political party in order to influence the election results will result in a fine of three to five times the minimum wage for officials and five to ten times the minimum wage for officials. The case on administrative offenses is considered by administrative courts within one day from the date of receipt of the report on administrative offenses and other case materials.

Disputes concerning actions and decisions of election commissions shall be considered by district (city) administrative courts in accordance with Article 27 of the Code of Administrative Procedure. Also, in accordance with Article 30 of this Code, the Supreme Court of the Republic of Uzbekistan considers cases of dispute on the actions or decisions of the Central Election Commission of the Republic of Uzbekistan. Complaints against decisions of the election commission shall be considered in the presence of the applicant, representative of the relevant election commission, prosecutor, and inviting that person if the complaint concerns another citizen, not the applicant. Failure of these persons to appear shall not impede the hearing of the case.

As for the consequences of invalidating the election results, if a complaint against the decisions of the election commission is satisfied, the court’s decision is immediately passed to the relevant election commission and the applicant. The Electoral Code also states that elections in general or in certain constituencies or in certain polling stations may be invalidated due to violations committed during the election, which have affected the voting results.

The Central Electoral Commission shall decide on the invalidation of the elections to the Legislative Chamber. The decision can be appealed to the Supreme Court of the Republic of Uzbekistan within ten days after the announcement of the election results. It is well known that the decision to declare elections to local councils invalid shall be made by the relevant election commission. This decision can be appealed in court within ten days from the announcement of the voting results.

The decision of the court shall be immediately delivered to the relevant election commission and the applicant. A party that is dissatisfied with the decision of this court may file a complaint to the higher court, and the prosecutor may file an appeal. The current law also provides for appropriate interference in the electoral process. For example, Article 51-2 of the Code of Administrative Responsibility imposes a fine of ten to fifteen times the minimum wage on officials for interfering in the activities of the Central Election Commission of the Republic of Uzbekistan, election commissions, referendum commissions, as well as for obstructing their work cause. Also, article 51-3 of this Code provides for a fine of three to seven times the minimum monthly wage for non-executing decisions of the Central Election Commission, election commissions, for refusing to consider their appeals or for violating the terms of their consideration without valid reasons, is inserted.

In addition, a candidate, proxy, observer or an authorized representative of a political party may apply to the relevant election commission, the law enforcement agencies and the prosecutor’s office if they believe their rights are being violated. In the event that the rights of the aforementioned persons are found to be violated, officials shall be punished by a fine of five to ten times the minimum wage as defined in Article 51-4 of the Administrative Code.

The law also provides for liability for violations of election financing procedures. In particular, Article 51-8 of the Code of Administrative Responsibility imposes penalties of five to ten times the minimum wage for officials and ten to twenty times the minimum wage for violations of election financing procedures. The publication or publication of documents on election results without their approval by the relevant election commissions, referendum commissions, as well as for obstructing their work cause. Also, article 51-3 of this Code provides for a fine of three to seven times the minimum monthly wage for non-executing decisions of the Central Election Commission, election commissions, for refusing to consider their appeals or for violating the terms of their consideration without valid reasons, is inserted.

Cases of administrative offenses committed during the election process are registered by the prosecutor’s office and law enforcement agencies. Within 24 hours of receiving notification to the police or prosecutor’s office, the actions of the alleged perpetrator will be investigated at the crime scene with the participation of election commission members and, where appropriate, the reporting person.

Subsequently, the documents collected in the course of investigations are made within one day from the moment of committing or detecting violations, in accordance with Article 282 of the Code of...
Administrative Offenses, along with a report on administrative offenses or other facts and physical evidence on the case, go to the district (city) administrative court for consideration of cases. 

Expert Yu. Chokan it is advisable to quote that in his view, an open and transparent election is a key factor in a realistic assessment of the electoral process. These principles, in turn, prevent violations of electoral legislation. There is an important legal basis to ensure that there are no violations of electoral legislation in the forthcoming elections in Uzbekistan. This is, of course, the Electoral Code. The norms contained in this Code comply with international standards for fair and fair elections. That is why the Electoral Code of Uzbekistan has been widely assessed internationally [5].

CONCLUSION

In short, from the peculiarities of accountability for violations of electoral legislation, we can conclude that Uzbekistan has accumulated sufficient experience in the further development of parliamentarism and the democratic and transparent electoral process.

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RIGHTS AND OBLIGATIONS OF THE SIDES TO THE GIFT CONTRACT

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ABSTRACT
This article discusses rights and obligations of the sides to the gift contract by the helping law sources and scientific literatures as well.
KEY WORDS: right, obligation, liability, law, side, gift contract, element, content.

INTRODUCTION
When it comes to the content of the gift agreement, special attention should be given to the gift contract. Because the real gift agreement usually does not create any compulsory legal relationship. It is necessary to consider the rights and obligations of the donor and the recipient together because the rights and obligations of the other party are compatible with the rights and obligations of the other party.

METHODS
According to Article 224 of the Civil Code of the Republic of Uzbekistan (hereinafter - the Civil Code), the owner has the right to dispose of his property at his own discretion, which in turn gives the right to donate property. The giver may use or waive this right.

In accordance with Part 1 of Article 502 of the Criminal Code of the Republic of Uzbekistan, the main obligation of the donor is to transfer the gift to the recipient. For this reason, I. Anortoev reasonably offers a wider interpretation of the gift and states: “In this case the subject of the gift may be not only the substance but the rights as well as the liberation” [1, p.224, 225]. If the gift is an item, it may be donated directly to the recipient, in a symbolic way, or by handing over title documents.

Giving a gift in the form of a property right is done by submitting documents that confirm the grounds for that right (for example, a waiver of securities without the owner’s identity). In turn, relieving the donor of his or her obligation to the third party or the third party requires the donor to take certain actions, which are often expressed in the consent of the donor's lender to transfer his debt or to fulfill the obligations of the donor.

RESULTS AND DISCUSSIONS
As mentioned above, a real gift contract usually does not create a relationship of obligation. This is why we are talking about the obligations arising from consensus donation agreements, and we will look at their basic terms.

In addition to giving the gift to the recipient, the donor may also give it to a specific person in the future. If such a gift agreement is in writing, in accordance with Paragraph 2 of Article 503 of the RU, a waiver of the gift must also be made in writing. The recipient, in turn, has the right to refuse the gift at any time (without specifying the reason) before transferring it to him in accordance with Article 503 Part 1 of the Civil Code of the Republic of Uzbekistan [2].

On this basis, I.V.Eliseev concludes that “accepting a gift is not the responsibility of the recipient” [3, p.131]. This is easy to explain because the recipient’s right to refuse a gift is in line with the donor's obligation to give. The contract cannot be fulfilled until the recipient receives it. If this is the case, the donor has the right to demand from the recipient the compensation for the actual damage caused by the denial of the gift (Part 3 of Article 503 of the Civil Code).
The law also gives the donor the right to make a gift through his representative, and the representative receives that power only when the donor has given him the power of attorney. If the power of attorney and the recipient are not clearly indicated in the power of attorney, it is invalid by itself (Part 7 of Article 505 of the Civil Code). This rule is important when it comes to giving a group of donors and a number of items.

In our opinion, this rule also excludes the possibility of giving the property in the power of attorney in the case of a split (for example, 1/2, 1/3), which may invalidate it.

If the donor is a legal entity, which owns the property on the right of business or operational management, it may donate the property only with the owner’s consent. In the absence of the owner’s consent, the organization may present “small value gifts” in accordance with Part 1 of Article 505 of the Criminal Code of the Republic of Uzbekistan. However, the law does not clarify the concept of “customary gifts”.

In our view, this provision of the law is not clear as the total property of such legal entity is the property of the proprietor. Consequently, even the removal of a small part of it requires the consent of the owner (as the right of possession, use and disposition of such property is the right of the owner). Therefore, we think it would be advisable to clearly state the amount of “small gifts” in Article 505 of the Criminal Code of the Republic of Uzbekistan, for example the value of which does not exceed fivefold.

A consensual donation agreement gives the donor the right to claim the gift from the donor to his or her property, as well as “to demand that the donor fulfill its obligations in due time” [4, p.315]. According to Article 242 of the Civil Code of the Republic of Kazakhstan, the recipient has the right to request the donor to fulfill the obligation if the time limit for performance of the obligation has not been specified or the time of the claim is set.

This right does not impose upon the beneficiary any obligation. The law also gives the donor the most important rights. He shall have the right to refuse the contract of consular donation prior to the issuance of material in the following cases:

1) If, after the conclusion of the contract, the material condition of the donor has significantly deteriorated (Part 1 of Article 506 of the CC of the Republic of Uzbekistan);

2) In case of deliberate crime of the recipient of life of the donor, his family or close relatives (Part 1 of Article 507 of the Civil Code).

In this case, the law allows the donor to unilaterally terminate the contract with the donor. However, Maseevich said there could be other grounds for refusing to perform the giver's obligation: “Refusal of the donor to carry out the obligation may result in the loss of the item, the release of the transaction or the imposition of the promised action. This stops the obligation because of impossibility of execution” [5, p.154].

It is understood that in some cases, the performance of a gift contract may not be dependent on the will of the parties due to force majeure. This in turn excludes their culpability and misconduct.

It follows that the list of reasons for refusing to comply with the consular donation contract is not yet complete. For this reason, we believe that the list of grounds for the donor's refusal to fulfill his obligations under a consular donation contract should be shown on a much larger scale. This is because such conditions should not give the donor the right to demand from the donor the reimbursement of damages caused by his or her fault in the future.

The law also gives the donor the opportunity to request an emergency, change or cancellation of the gift agreement in the event of a serious change in circumstances. A significant change in circumstances, where the parties can foresee the situation in advance, may not conclude the contract at all, or conclude it with significantly different conditions (Part 2 of Article 383 of the Civil Code). An agreement cannot be reached, interested parties may apply to the court (Art. 383 Part 3 of the Civil Code).

At the death of the donor, his obligations are transferred to the heirs of the consortium, unless otherwise provided by the consular donation agreement. This, in turn, gives the beneficiary the right to demand from the heirs of the promising donor, unless otherwise provided by the contract. However, this provision does not apply to the donation agreement (Art. 511 Part 8 of the Civil Code).

Contrary to this rule, in the interests of the proprietor (beneficiary), the heirs at the death of the beneficiary are required by the donor to fulfill the obligation under the donation agreement, unless otherwise provided by the contract. That is, the law gives the parties the right to decide what to do about it.

In the case of a charitable agreement which has specific features, it should be noted that in accordance with Article 511, Part 3 of the Civil Code, the donor has the right to receive donated property without the permission of state authorities or higher organizations [6, p.249]. This right exists only in this type of gift agreement.

Although commitments on the part of the beneficiary are not uncommon for a simple gift, they always exist in a donation agreement. This seriously limits the recipient’s rights. After all, its main
obligation is to use property for designated purposes (Art. 511, Part 3 of the Civil Code). This is explained by the fact that the number of donors has increased significantly and citizens have become involved as givers.

Donations may also be for the benefit of the whole community, for a particular organization or institution, enterprise, or for a limited number of individuals (for example, nursing homes, a community of people with disabilities or a group of individuals with a particular profession, etc.). Citizens should use the donated property for the purposes stated by the donor (Part 4 of Article 511 of the Civil Code). The law treats the donated property as a simple gift to a citizen if the beneficiary has no purpose. Conversely, if the donor is an organization, it may “make” the donation a condition that the property is used for a specific purpose. If this is not the case, legal entities should use the property in accordance with its function (Art. 511, Clause 4 of the Civil Code). However, this use, in this context, should align with the goals of the organization, according to A.L. Makovsky [8].

CONCLUSION

Indeed, the purpose of disposing of such property may not correspond to the goals of the legal entity's activities as set out in the constituent documents (for example, the special legal capacity of the legal entity as defined in Article 41 of the Civil Code). In this case, the recipient cannot fulfill his obligation to the donor, that is, the purposeful use of the property, because the activity is illegal (or may not have a license).

In this case, the law gives the beneficiary the right to change the “purpose” of the donated property, but only with the consent of the beneficiary, and in the event of his death, by the decision of the court (Article 6). If the beneficiary is a legal person, the recipient must maintain a separate list of all operations related to the use of the donated property (Part 3 of Article 511 of the Civil Code). We believe that such a measure is necessary to prevent and prevent such a donor's use of the donated property for any other purpose.

REFERENCES

2. This Article provides that the concession of such a contract shall be in writing and, if necessary, in the state registration, which means that the recipient shall refuse to accept it.
THE HISTORICAL AND PHILOSOPHICAL ASPECTS OF PUNISHMENT FOR THE CRIME

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ABSTRACT
The article analyzes the historical and philosophical aspects of sentencing criminal offenses using scientific literature and online sources.

KEY WORDS: crime, law, legal culture, law, task, concept, citizen.

INTRODUCTION
The system of criminal and criminal-legal legislation effectively protects the rights, freedoms and legitimate interests of citizens, the existence of legal barriers that prevent legality in criminal and judicial proceedings: prevention and prevention of crimes, as well as high legal culture and respect for citizens. Inadequate legal mechanisms for absorption; inadequate sanction and ineffectiveness of sanctions for certain types of crimes, the nature and extent of socially dangerous acts, including alternative types of punishment, incentive norms and measures of social influence; unsatisfactory quality of operatively-investigative actions and use of the received information in violation of procedural legislation requirements; insufficient implementation of criminal law institutions recognized in international practice, including the lack of criminal liability of legal entities; The introduction of modern information and communication technologies in forensic investigations is very low and results of analysis of forensic practices as well as the results of direct communication with the people indicate that there are a number of systemic problems and shortcomings in this area.

METHODS
Creation of an effective system of criminal and criminal procedure legislation is one of the priority tasks of the state in ensuring law and order, protection of human rights and freedoms, public and state interests, peace and security, taking into account modern international standards and best international experience. and, in accordance with the Action Plan for the five priority areas of development of the Republic of Uzbekistan for the period of 2017-2021, it is necessary to identify the criminal and criminal procedure legislation. In order to develop and implement fundamentally new priorities of integration, the Presidential Decree № 3723 of May 14, 2018 “On Measures for the Radical Improvement of the Criminal and Criminal Procedure Legislation” was adopted and this resolution was adopted. - The concept of improvement of procedural legislation was approved.

RESULTS AND DISCUSSIONS
The Concept notes the inadequacy and ineffectiveness of certain social crimes, including alternative types of punishment, incentive norms, and public sanctions, as well as problems and drawbacks related to the imperfections of certain provisions in criminal and criminal procedure law. different interpretations or corruption cases, or the extent and nature of social danger th acts that are incompatible with the principles of established norms of the responsibility for removal; creation of effective legal mechanisms for the prevention and suppression of
crimes, instilling high legal culture of citizens, their upbringing in compliance with the Constitution and laws; improvement of the criminal responsibility system and the revision of the classification system and criteria by introducing alternative indicators that determine the level and nature of criminal danger; ensuring a reliable guarantee of liability for the perpetrators of crimes; revision of punishment systems and mechanisms of their appointment, exclusion of outdated types and types of punishments; education of persons found guilty of committing a crime as well as the introduction of other legal penalties and other legal measures aimed at preventing possible crimes; expanding incentives, including those that mitigate punishment or establish criminal liability or release; Improvement of norms that exclude criminality of acts; development of the institution for the use of compulsory medical measures; the need for greater human rights of criminal law, especially for the first time, which does not pose a significant social danger or less serious, as well as for socially vulnerable segments of the population - minors, the elderly, persons with disabilities, pregnant women and lonely children. As a result, it was emphasized that full implementation of the principle of "rule of law - punishment is inevitable" is a requirement of time and life today.

The principle that is most important in understanding human rights is the idea of natural equality in the Greek and the Greek (Protagor, Antifont, Lycophron), and in the political and legal doctrines of Chinese thinkers (Mao-Tsi, Confucius) (VI-IV centuries BC). Former Roman statesman, speaker, and lawyer Mark Tuli Cicero also saved several people by executing a speech in court. In particular, Cicero said: "A judge should not rush to the death penalty against the perpetrator. After all, the judge cannot justify the justice of the judge and the court if the death of the person is not justified [2].

The well-known French writer W.Hugo described the importance of punishment in the fight against crime in his time, saying that "any punishment is cruel, and its characteristic is that it changes a person, but also changes his mind and his mind, and gradually. It will turn into a savage beast"[3].

In Islam, every human being has the right to enjoy human rights because it is a divine blessing. According to Islamic teachings, Allah created man as a human. Since life is given to man by Allah, no one can deprive him of the right to life.

The political and legal views of Abu Raykhan Beruni, one of the comedian scholars of the Shark Renaissance, have also focused on crime and punishment. According to the scholar, the worst manifestation of immorality in society is violence and theft. As for the punishment for such crimes and the re-education of those who committed them, Beruni says: Theft is punishable by the amount of the stolen property. Sometimes it is punished with a severe and moderate punishment as an example to the people, sometimes interfering with the indoctrination and indemnification of the people, sometimes spreading and publicizing “[4, p.14].

Amir Temur’s “Laws” also honors human rights and reveals the legal aspects of their protection. For example, it is written, “Anyone who has escaped from my office should be forgiven, even if he has committed a sin. Amir Temur insisted that the governor stand on the side of justice in protecting citizens’ rights. When he heard from the governors that he had been oppressing the people, he acted with fairness to them. “If the drugs and the rulers are to oppress and ruin the people, then they must be punished for what they have done”[5, p.90].

In the book of Zadig or Destiny by the French writer and philosopher: “The greatest truth is that people must first find their way into the heart of the world, without resorting to sensual efforts to change the appearance of the world in exchange for bloodshed, in order to understand the meaning of life”[15] is injected.

CONCLUSION

The doctrines of crime and punishment are at the heart of all issues, such as the universal human dignity - the protection of human rights. Ancient wise men and statesmen paid special attention to this problem in their views and actions, informing the general public of them is an important social task. In particular, studying the rich ideas embodied in our political and legal heritage, the doctrines of thinkers about building a just and educated society, and their in-depth considerations of crime and punishment will undoubtedly contribute to the theoretical enrichment of justice.

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EFFICIENCY OF RESOURCE SAVING AGROTECHNOLOGIES FOR INCREASING COTTON YIELD AND FERTILITY OF MEADOW OF SALTIER SOIL

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ABSTRACT

Article considering the productivity of weak and moderately saline meadow soils of the Jizzakh region (Uzbekistan) is estimated at $N_{160}P_{80}K_{48}$ kg/ha + based on resource-saving agro technologies to produce high-quality cotton (42.3-39.7 kg/ha) under these conditions. Fertilizer consumption of 10 t/ha, $N_{160}P_{112}K_{80}$ kg/ha + 20 t/ha with using of green manure (rape), reducing the level of groundwater and soil salinization, preventing degradation of ponds and soil structure.

KEYWORDS: meadow soil, salinity, cotton, fertilizer.

INTRODUCTION

Nowadays approximately 40 percent of the world's irrigated land is saline, with about 6-7 million acres of salinity. Hectares of land are undergoing degradation and produce about 25 million ha annually. Hectares of land are becoming deserts [11].

The most saline soils in the world are in Argentina - 30,500, in the USA - 5.9, in Egypt - 7.7, in Bulgaria - 3.0, in Hungary - 1.2 thousand and in other arid region countries [10; 12].

In Uzbekistan saline soils comprise 48-50% of the total irrigated area (4,304,32 thousand ha), weak saline soils 31.4%, moderate saline soils 15.5, and highly saline soils 3.8% [5; 9], in low saline areas the yield of cotton decreased by 20-30%, average salinity by 40-60% and salinity by 60-80%.

Strong influence of salts on cotton cultivating in irrigated area of the Republic is observed at the initial stage of development, during the period of 3-4 leaves. For most cotton varieties, limited salt concentration in the soil is 2.5-3.0% and after that it will lead to loss of vegetation. The toxic effect of salts on the soil is largely dependent on the ions contained in them. The toxic effect of salts on the soil is largely dependent on the ions containing in them. Chloride salinity is often toxic to cultivar plants on irrigated farmland. Because 0.01% of their soil content is negatively affecting plants. Toxic effect of sulphates in soils is observed when their content is 0.2-0.3% [4].

As a result of leaching to improve the reclamation of irrigated arable land, many leaching of nutrients along with harmful salts in the soil was revealed. As a result of soil salinization under different soil-climatic conditions, it was found that 50-70% of nitrogen content in the soil was reduced to 10-20% of portable (P$_2$O$_5$) phosphorus and 20-30% of substitute (K$_2$O) potassium.

The number of beneficial microorganisms in the soil has also decreased significantly [7]. Therefore, effective use of mineral and organic fertilizers and intermediate (green manure) resource-saving innovative technologies is needed to ensure high quality and high yields of these soils and their crops.
About 97.5% of the irrigated land in the Mirzachul district of the Jizzakh region was saline, with slightly saline land 40.2% of total irrigated land, 32.4% of the moderately saline soils. In such areas the yield of cotton, winter wheat, maize and other crops is on average decreasing for 20-40% [1, 8].

Therefore, improving the reclamation of irrigated saline land in Jizzakh region, improving soil fertility, developing innovative agro-technologies for preventing groundwater levels and environmental pollution, is an important issue for further cotton growing in the Republic.

**Table 1**

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<th>Variance, №</th>
<th>Annual quantity of nutritional elements, kg/ha</th>
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**MATERIALS AND METHODS**

In order to investigate the aforementioned issues, we propagate the growth and development of An-Bayovut-2 varieties of mineral and organic fertilizers and intermediate crops under saline, weak and moderately saline soils of the Bakhmal AGRO farm in Mirzachul district, Jizzakh region during 2016-2018. Field experiments to determine the impact of soil fertility and salinity in the experiment total area of each delta (100 m, width 8 rows × 0.6 = 4.8 m) was 480 m², including 240 m². The variants were sequentially schematically arranged in a single position.

**RESULTS AND DISCUSSION**

Jizzakh region is one of those regions that have the most acute problems, including the decline in the quantity and quality of surface and underground water resources, and the deterioration of the reclamation of irrigated lands. The region produces cotton, wheat, fruits and vegetables and melons.

The sedimentary soils under study have loamy sands and loams of dealluvial - prolluvial genesis and according to the mechanical composition, the soil is heavy and medium sandy with loamy sandy and sandy loam layers below the soil. Deposition of different mineralized ground waters to the surface (1.5-2.0 m) accelerates the salinization process, which results in soil salinization. Depending on the salinity, these soils are weak, moderate and highly saline, with the salinity type of chloride-sulphate and sulphate-chloride salinization.

The aim of this study is improving the reclamation of saline soils of Jizzakh region with the use of field and laboratory experiments, to prevent soil erosion and salinization, increasing soil fertility, maintain a clean environment, producing high quality cotton and mineral fertilizers, determining the effects of organic fertilizers and intermediate crops (green manure) and develop a scientifically-grounded approach to the efficient use of irrigated land for production pensions guarantees.
At the beginning of the vegetation period (before sowing) amount of dry residue in the 0-70 cm layer of saline grassland is 0.225 and chloride ion is 0.012; sulphate 0.098%, and in 0-100 cm layers 0.239 respectively; 0.015; 0.107 %, the salinity of weak saline fields is 0-70 cm dry residue - 0.251; 0.016; At 0.114%, these figures are 0.266 in the 0-70 cm layer of the average saline field; 0.017; 0.121% and 0.200 cm respectively 0.257; 0.018; 0.129%.

Should be noted that increased saline soils (27%) at the depths of 35-53 cm, with weak saline soils (30%), in this saline area is 43%. These features indicate that the land will be salinized immediately unless reclamation measures are carried out in these areas.

According to the results of the experiments, the average cotton yield with 34.6; 33.7; 35.5 and 42.3; 38.7; 36.8 kg/ha in variants used amount of fertilizers (N260P120K85 kg/ha) is 8.2 c/ha; It was found at 7.9 units.

In the saline field, the number of cotton, non-fertilized (control) cotton, the number of branches and weeds on August 1, in the ratio of fertilizers (1: 0.5; 1: 0.7: 0.5) or 10.20 t/ha, it was found to be much lower than that used on the background of manure and green manure. High salinity and yield of cotton grown in these areas under the influence of fertilizer N160P80K48 kg/ha fertilizer in moderately saline soils with moderate salinity at N160P120K85 kg/ha, the difference found was 6.7 c/ha.

In the experimental field, the number of cotton, non-fertilized (control) cotton, the number of branches and weeds on August 1, in the ratio of fertilizers (1: 0.5; 1: 0.7: 0.5) or 10.20 t/ha, it was found to be much lower than that used on the background of manure and green manure. High salinity and yield of cotton grown in these areas under the influence of fertilizer N160P80K48 kg/ha fertilizer in moderately saline soils with moderate salinity at N160P120K85 kg/ha, the difference found was 6.7 c/ha.

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ANTIMITOTIC AND GENOTOXICITY EFFECTS OF WILD LIBYAN ARTICHOKE *Cynara cornigera* LEAVES AQUEOUS EXTRACT

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ABSTRACT

Allium cepa root tip cells were used to find out the effect of *Cynara cornigera* extract on chromosomal structure and behavior during cell division. To measure the mitotic index and chromosome aberration in treated cells. The root meristem cells were treated with different concentrations of *Cynara cornigera* leaves aqueous extract (0.1, 0.01 and 0.001 mg/ml) for 4, 6 and 12 hours, respectively. The results indicate that aqueous extracts of *C. cornigera* plant have the ability to decrease the (MI) values with increasing the concentration at (P<0.005). The treatments have caused different kinds of mitotic abnormalities and chromosomal aberrations, such as: Change percentage of mitotic phases, C-metaphase, Stickiness, Disturbed nuclear membrane, Highly condensation of prophase and Accumulation of cell in interphase.

KEY WORDS: Bioassay: *Cynara cornigera*: Leaf extract: Artichoke; Chromosomal aberrations.

INTRODUCTION

According to the World Health Organization (WHO), about 80% of developing countries use traditional folk medicines, 85% of which are plant extracts. Furthermore, the international center of commerce reported that medicinal plants are still vitally important in the preparation of pharmaceutical products (Fransworth, 1994; Nune and Caravalho, 2003).

Artichoke has been known since the 4th century B.C. as a food and remedy. This plant was appreciated by the ancient Egyptians, Greeks, and Romans, who used it both as a food and as a medicine (for their beneficial effects against hepatobiliary diseases and as a digestive aid) (Marzi et al., 1975; Sonnante et al., 2002).

In Libya, 4 species of Artichoke are reported and they include *Cynara cornigera*, *Cynara cadunculus*, *Cynara scolymus* and the endemic *Cynara cyrenaica* (Jafri and El-gadi, 1983). *Cynara cornigera* is dwarf plant, 10-20(30) cm and it is flowering in Spring (Plate 1). This plant is distributed in the eastern part of Libya and using widely in folk medicine. Shortage and no enough information about its effect on human use was led to shade some light on this plant. There for, this study was aimed and designed to evaluate the antimitotic and antimutagenic activities of aqueous extract of the leaves of *C. cornigera* on A. cepa root tip cells to find out the effect of *C. cornigera* on chromosomal structure and behavior during cell division by studying the mitotic index (MI) in the treated cells.
MATERIALS AND METHODS

Plant material: C. cornigera plants were collected from the borders of Benghazi city and identified according to the mentioned references, beside consultation of the Faculty of Science, Benghazi University, Libya. leaves were washed with distilled water, dried with filter paper in dark place. They were grind by electric blender and were stored as powder in dark flask until used. Commercial variety bulbs of the common onion (Allium cepa) were selected in shape and purchased from local market for plant bioassay.

Aqueous extract: 5g of C. cornigera powder was added to 100 ml boiled distilled water after cooling to 60 °C. the content of the flask was shaken and left at room temperature (Tawab et al., 2004). A buchner funnel lined with whatman No.1 filter paper was employed to filtrate the content of the flask. The filtrate was used as stock solution and three different concentration (0.1, 0.01 and 0.001 mg/ml) were prepared by serial dilution method (Jain and Sethi, 1991; Eltorki, 2006; Iranbakhsh et al., 2010).

Procedure of plant chromosomes technique: The preparation of plant chromosome achieved using standard methods described by (Grant, 1982), with minor modification.

Onion bulb germination and treatment: Onion bulbs were grown in distilled water at room temperature (25±2 °C) in the darkness. They were placed in small (50 ml ) glass cups containing distilled water for approximately 3 to 4 days, when the primary root tips were 0.5-1.5 cm long, the bulbs were transferred to clean and dried containers included the treatments with a series of concentration. In this experiment two groups were used. group 1 included negative control (distilled water) and positive control treated only with colchicines solution 0.05%. In treated samples 5 ml of colchicines solution 0.05mg/ml were added to each treatment for 3 hours prior to harvesting except the negative control. The group 2 treatment with series of concentration stock solution, 0.1, 0.01and 0.001 for 4, 6 and 12 h. The controls were treated with distilled water only. Ten root tips were cut and examined for each treatment, the experiment repeated for five times.

Fixation and slide preparation: For cytological preparation, the root tips were fixed in 95% ethanol/glacial acetic acid 3:1 (v/v) from 1 to 24 hrs. at 5 °C. The technique which use is described by Fiskešjö (1994). Slides were prepared using the aceto-orcein squash technique, by hydrolyzing the root tips in 1N HCL at 60 °C for 12 min. and stained with aceto-orcein stain for 45min. The meristematic region of the root was removed and washed with 45% glacial acetic acid on glass slide and squashed with flattened glass rod in Glycerol and mounted with cover slip and temporary sealed with clear finger nail polish. Slides from each treatment examined by light microscope under 40x and 100x to find out the mitotic aberrations. The mitotic index MI was calculated as the percentage of dividing cells to the total number of cells examined. Abnormality cells was calculated as the percentage of abnormal cells to the total number of cells examined.

Data analysis: The data of mitotic index MI and C-metaphase of plant chromosomes technique were analyzed by one way analysis of variance (ANOVA), Multiple comparisons were performed by least significance (LSD) using statistical package for social science (SPSS) with significance level less than 0.05 (P<0.05).
RESULTS
Antioxidant activity of C. cornigera leaves aqueous extracts
The effects of C. cornigera aqueous extract on mitotic index (MI) and c-metaphase of A. cepa root tip cells at different exposure time intervals are illustrated in table (1). The obtained data showed significant differences between groups and within group (p<0.005). The results of short hours treatments (4 hours) showed significant differences, decrease in MI by decreasing the plant extract concentration compared to (negative and positive) control. Lowest mitotic index values were in samples treated with 0.001 plant extract, its value was 7.49% compared to the negative control which was 45.60%, the low concentration of 0.001 had more inhibition effect on MI than 0.1 plant extract concentration but close to 0.01 concentration action. The lowest number of c-metaphase cells (2.00) obtained in samples treated with 0.01 plant extract for four hours (4 hours) compared to the positive control which was (26.33) cells in c-metaphase.

Table (1): Mitotic index and C-Metaphase in Allium cepa L. root tips treated with C. cornigera aqueous leaves extract and 0.05% colchicines.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>4 hours</th>
<th>6 hours</th>
<th>12 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.C.</td>
<td>D.C.</td>
<td>M.I.% ± S.D.</td>
<td>C-M ± S.D.</td>
</tr>
<tr>
<td>Neg. C</td>
<td>1603</td>
<td>731</td>
<td>45.60 ± 13.90</td>
</tr>
<tr>
<td>Pos. C</td>
<td>1680</td>
<td>525</td>
<td>31.25 ± 11.61</td>
</tr>
<tr>
<td>0.1 + 0.05 Col.</td>
<td>1317</td>
<td>244</td>
<td>18.53 ± 3.58</td>
</tr>
<tr>
<td>0.01 + 0.05 Col.</td>
<td>1074</td>
<td>86</td>
<td>8.00 ± 3.83</td>
</tr>
<tr>
<td>0.001 + 0.05 Col.</td>
<td>1120</td>
<td>85</td>
<td>7.59 ± 4.15</td>
</tr>
</tbody>
</table>


The data revealed that the decrease in c-metaphase cells co-present with the decrease in mitotic index (MI) of treated cells with plant extract and colchicines. These decreases in MI are concentration dependent, while the decrease in c-metaphase cells was concentration independent.

The statistical analysis revealed no significant differences between groups and within groups total cells (TC) at time intervals. But there were significant differences between groups and within groups of dividing cells (DC) at 4 hours treatment with different plant extract concentrations (P= 0.019). There were highly significant inhibitory effects on dividing cells in samples treated with different plant extract concentrations compared to positive and negative control between groups and within groups (P= 0.003) by ANOVA analysis at time of 6 hours.

Table (1) showed a decline in C-metaphase cells at 0.1mg/ml concentration which was 1.33cells in cells treated to 6 hours compared to positive control which was 35.33 cells. By increasing the time to 12 hours, there were significant differences (P= 0.012) between groups within groups on c-metaphase at different concentration (p<0.05), but there were not significant differences between groups within groups on dividing cells (P=0.193). ANOVA test indicated significant effect (p<0.05) of plant extract on number of c-metaphase in treated sample with all concentrations compared to (positive and negative) control at all-time treatments, also it indicated a significant effect (p<0.05) of plant extract on M.I.% in treated samples compared to (positive and negative) control at (4 and 6) hours of time treatment.

Genotoxicity of Cynara cornigera leaves aqueous extract
The treatment of A. cepa root tip cells with different concentration of C. cornigera crude water extract (0.1, 0.01 and 0.001 mg/ml), for different exposure times (4, 6 and 12), the resulted data were presented in table (2).

No abnormal cells were observed at negative control treatment samples at all applied interval times. While at high concentration (positive control)
of *C. cornigera* leaves aqueous extract, the percentage of abnormal cells were increased (35.735, 51.034 and 44.123 %) by increasing time (4, 6 and 12 hrs), respectively. The percentage of physiological abnormalities at low concentration of 0.001mg/ml were increased from 27.66% at 4hrs treatment to 29.06% at 6hrs and 29.86% at 12 hrs. However, at the time 4hrs of treatment there were increases in abnormality at high concentration of *C. cornigera* extract which were 35.735%, 40.264%, 33.091% and 27.666% at concentration of stock solution of 0.1, 0.01 and 0.001 mg/ml, respectively. Increase of the treatment time to 6, 12 hrs. with high concentration (stock solution) induce an increase in percentage of abnormalities (51.034 and 44.123 %, respectively) compared to 4hrs of time treatment which was (35.735%). The most common type of physiological abnormalities which appeared in all the concentrations and periods of treatment are given in plate (2) and (3) and chromosomal stickiness at metaphase is more observed in all treatments.

**Table (2):** The effect of *Cynara cornigera* leaves aqueous extract on Mitotic Index % and of Normal cells% and Abnormal cells% of *A. cepa* meristematic cells (Group 2).

<table>
<thead>
<tr>
<th>Treatment Mg/ml</th>
<th>4 hours</th>
<th>6 hours</th>
<th>12 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neg. C.</td>
<td>8.666 ± 0.733</td>
<td>100.0 ± 0.00</td>
<td>000.0 ± 0.00</td>
</tr>
<tr>
<td>Stock solution (Pos. C.)</td>
<td>2.244 ± 0.072</td>
<td>64.265 ± 2.04</td>
<td>35.735 ± 2.042</td>
</tr>
<tr>
<td>0.1mg/ml</td>
<td>3.748 ± 0.28</td>
<td>59.736 ± 1.25</td>
<td>40.264 ± 1.092</td>
</tr>
<tr>
<td>0.01mg/ml</td>
<td>4.792 ± 0.198</td>
<td>66.909 ± 3.89</td>
<td>33.091 ± 1.358</td>
</tr>
<tr>
<td>0.001mg/ml</td>
<td>5.814 ± 0.826</td>
<td>72.334 ± 0.694</td>
<td>27.666 ± 0.629</td>
</tr>
</tbody>
</table>

M.I. =Mitotic Index.  
Ab. C. %=Percentage of abnormal cells.  
N.C. %=Percentage of normal cells.  
Neg. C. =Negative Control.  
Pos. C. =Positive Control.  
S.D. =Standard Deviation.

Disturbed nuclear shape (stock solution at 12hr).
Plate (2) Physiological abnormal mitotic cells of *A. cepa* root tip cells after treatment with different concentrations of *C. cornigera* leaves aqueous extract for different periods.

- Highly condensation prophase (stock solution at 4hr).
- Early condensation prophase (0.1mg/ml at 12hr).
- Stick metaphase (0.01mg/ml at 6h).
- C-metaphase (positive control at 4h).
- C-metaphase (0.1mg/ml at 6h)
- Disturbed metaphase (positive control at 12h)

Plate (3) Physiological abnormal mitotic cells of *Allium cepa* tip cells after treatment with different concentrations of *C. cornigera* leaves aqueous extract for different periods.
DISCUSSION

A. cepa root tip meristems have been widely used for evaluation of cytotoxic and antimitotic activity of various compounds (Fiskesjo, 1988; Soliman and Ghoneam, 2004 and Sehgel et al., 2006). Such mitotic inhibition could result of the inhibition of DNA synthesis which is considered as one of major perquisites for a cell to divide (El Garabulli and Mohamed, 2007). However the reduction of mitotic activity after treatment could be associated with a reduction in the amount of both DNA and RNA (Badr, 1986; Soliman and Ghonium, 2004). Many other investigators attributed the depression in mitotic index values to the inhibition of protein synthesis, or due to inhibition of certain types of nuclear proteins essential in mitotic cycle (Haliem, 1990; Turkoglu, 2008; Ghareeb et al., 1997 and EL-Nahas, 2000). Similar results were obtained by (Medeiros and Takahashi 1987), who reported a decrease in mitotic index in onion root tip cells at all tested concentrations.

The mitotic index values were decreased with increasing of C. cornigera concentration and exposure time, especially at high concentration (stock solution) compare to control. This result is in agreement with action of other plant extract proved to be mitodepressive such as: the effects of castor (Ricinus communis) seed extract on Allium cepa root tip cells, effects of water extract of Rosmarinus officinalis on Allium cepa root tips, the mutagenic effects of water extract of ten Ipomoea species on root tip cells of onion, genotoxic effect of seed decoction of Cassia tora L. (languminaeae) in A. cepa root tip cells (Borah and Talukder, 2002; Tawab et al., 2004; Mondel et al., 2006, and Solanke et al., 2008), respectively.

The percentage of chromosomal abnormalities decreased at lower extract concentration but it was found to be increased with high concentration. Such results agree with those obtained by Kaushik et al., (1993), who tested water extract of Datura stramonium on A. cepa root tip cells. They found that the mitodepressive effect of plant extract were increased with increase the concentration and exposure time.

The present experiment also showed that different concentrations of C. cornigera extract induced various forms of chromosomal aberration and the aberrant rate goes up with the concentrations. The treatment of A. cepa with different concentration of C. cornigera water extract induced only physiological types of chromosomal abnormalities which represented by chromosomal stickiness at metaphase and early prophase condensation. No damage of genetic material was observed such as fragment, bridge and micronucleus, which mean the third way suggested by Xiao-wei, 2004, is not the mechanism of C. cornigera action of cell dress inhibition.

The percentage of physiological aberration was increased by increased of C. cornigera extract concentration and exposure time, these observations agreed with other reports (Ragunathan and Panneerselvam et al., 2007; Solanke et al., 2008; Mahanta et al., 2008). The most common type of physiological abnormality observed in all the concentrations and periods of treatment was, chromosomal stickiness at metaphase, this even may be due to alteration of chromosomal proteins resulting in change in surface nucleoprotein configuration or improper folding in chromosome fiber (Sagoo et al., 1991).

The mitotic index inhibition of root tips of A. cepa L. at different concentrations and exposure period times, indicated that C. cornigera plant has positive antimitotic effects. The data obtained from this study suggested that using extracts of C. cornigera plant is a good and safe method and can be used as antioxidant and anticancer agent. Therefore, more investigation using molecular methods most take in account with more attention.

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