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# FROM THE HISTORY AND DEVELOPMENT OF ATHLETICS

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## ABSTRACT

*The article deals with the information about the earlier history of athletics that is considered as the oldest sport with a rich history in terms of development history. In the paper, actions such as running, jumping, and throwing that created together with mankind were described. Also, the article gives data on the development of the Olympic Games that were revived in some countries, and the effect of athletics running in a football game has a special effect on the development of speed, endurance, and strength qualities have been discussed. The author notes that to achieve the goal during training, the coach and the athlete have to solve a number of tasks and exercises.*

**KEY WORDS:** *athletics, history, physical training, exercises, coach, Olympic games, speed, running, jumping, throwing.*

## INTRODUCTION

Athletics is the oldest sport with a rich history in terms of development history. Actions such as running, jumping, and throwing were created together with mankind and were closely related to his work and life. That is why, athletics games have been introduced as a competition in many countries. Basically, the peak of the development of athletics was in Ancient Greece. Sports competitions were very popular in this country, because the wars that took place in those days required well-trained warriors. In ancient Greece, international and international competitions were organized, and later they received the title of the Olympic Games. The Olympics in ancient Greece. People from many other Greek cities flocked to the Olympic Games, and the wars were stopped at this time. The first Olympic Games in 776 BC His program was 192.27 m. distance running (called fomas) was introduced [3]. In 708 BC, along with running, sports such as discus, javelin throwing, jumping, and wrestling were included in the program.

The achievements of ancient Greek athletes were very high due to the intensity of their training. The reason is that Greek children who go to school from the age of 7 do not pay much attention to literacy, on the contrary, they pay more attention to physical education. In connection with the transfer of Greece to the Roman Empire in the last century AD, the Olympic Games lost their status. In 393 BC, the Olympic Games were revived by a special decree of the Roman emperor Theodosius I.

Athletics is a sport that combines walking, running, jumping, throwing and training. Athletics as a scientific-educational subject for special physical education higher educational institutions is a science in the content of the methodology of practical and didactic teaching of this sport. "Athletics" is translated from the ancient Greek word, which means course, training. In ancient Greece, athletes competed in strength and agility, but today they are strong men with well-developed physical bodies [4]. The name athletics refers to the lightness of appearance during exercise, and athletics is the

opposite of athletics or athletics (USA, France, England). Athletics is divided into five divisions, and then into several types and variants.

Athletic training is a common human activity, good exercise for people of all ages. During a normal long, rhythmic walk, almost all body muscles work, the work of the heart, relaxation systems and other systems improves, and the metabolism increases. There are other types of walking, for example: marching (pokhodnaya), rowing (stroevaya), sports (sportinaya), among which the most technically difficult, but at the same time the most effective, is used in competitions. His speed is twice his normal walking speed. But mastering the technique is not enough to achieve high speed. Walking too high requires more effort than normal walking and also increases energy loss. In this regard, playing sports has a special effect on the athlete's body, strengthens internal organs and systems, improves work capacity, has a positive effect on the development of strength, especially endurance, and forms voluntary qualities. A well-made sail is very durable [5]. Running is a common form of exercise that is included in many sports (football, basketball, tennis, etc.). Compared to walking, running requires a higher work capacity from the body, and almost all body muscle groups begin to work, the activity of the heart and blood vessels and the rest systems increases, and the metabolic process increases.

## LITERATURE REVIEW

In athletics, running is divided into flat, hurdles, relay and natural types. In the course of this exercise, jumping, the athlete's body, strength, speed, dexterity, and heroic qualities develop. Jumping in athletics is divided into two types; 1) through a vertical obstacle, i.e. high jump, spike jump. 2) horizontal hurdles, i.e. long jump and triple jump. Throwing This exercise is performed by pushing or throwing special equipment for a long time. Their dimensions are measured in meters and centimeters. When shooting, it is performed in a short time with the help of nerve and muscle power, during



execution, not only the arms, but also the muscles of the shoulder girdle, chest and legs are activated. According to the method of execution, sports shooting is divided into three types: 1) head shooting (spear, grenade); 2) with a twist (disc, hammer); 3) by pushing (core).

Generally, this exercise is a combination of the aforementioned running, jumping and throwing exercises. They are named according to the number of exercises: (triathlon, pentathlon, hexathlon, octathlon, decathlon). Among the sports, athletics is effective in terms of its wide and comprehensive impact on the human body, training techniques, excitement, and comfort in natural conditions. Maybe that's why athletics is called the queen of sports. It has a special place in the development of physical fitness and physical qualities of athletes in other sports. In particular, the effect of athletics running in a football game has a special effect on the development of speed, endurance, and strength qualities. In a basketball game, the qualities of speed, strength, dexterity, and heroism are developed through athletics training. The emergence and establishment of athletics as a form of athletics dates back to the middle of the 19th century: the first 7-mile athletics competitions were held in England in 1867.

I period. Characterized by very long distance races: Vienna - Berlin - 578 km.; Paris-Beaufort - 496 km.; Turesh-Marseille-Barcelona - 110 km. This type of race was 3.5 km on the program of the Olympic Games held in London in 1908. and continued until the introduction of 10 km sport walk competitions.

II period. It covers the years 1908-1932. At this time, athletic walking became an Olympic sport. One of the modern Olympic distances is 50 km at the 1932 Los Angeles Games. included. World records were set for 20 km in 1918 and 50 km in 1924.

III period. From 1932 to 1952, it was customary to prepare athletes for a sports walk every year. Modern methods and methods of sports training were used, the volume of loads offered by trainers increased during training. In 1964-1976, the sport continued to spread in continents such as Africa, Asia, and Latin America. Various means and methods of training athletes are widely used in sports, and a scientifically based system of training various professional athletes has appeared.

In 1924, registration of records for sports walks began. Races 3 km., 5 km., 10 km. and 20 km. were carried out. In 1964, the first 50 km sports race was held. In 1952, Soviet athletes participated in the Olympic Games, won Olympic medals in various fields and were able to actively compete with foreign athletes.

## METHODOLOGY

One of the types of athletic training is walking. In competitions, the most technically complex and at the same time the most effective type of sports walking is held. Sports walking require a higher intensity than normal walking, as well as an increase in energy expenditure. In this regard, the sports walking park has a significant effect on the athlete's body, its internal parts and systems are strengthened, it has a positive effect on the development of strength, especially endurance and will. Depending on the correct technique, one step of a person's movement is completed in 0.27-0.33 seconds to achieve high

success in sports walking. Sports driving speed is 2-2.5 times higher than normal. It depends on the frequency and length of the step. The length of the step is 80-90 cm in normal walking, and 105-120 cm in sports walking, the frequency of the step is 110-120 steps per minute in normal walking, and the length of the step is 180-200 cm. sports walking etc. Despite the high speed of walking, the step of the walker should be longer. But a very long step leads to more energy consumption and less mastery of the technique. Sports walking has a cyclical nature, that is, the movement of certain distances is repeated several times and, unlike other cyclical types of athletics, is strictly limited by the specific characteristics of the competition. These limitations have had a significant impact on the design of sports walking techniques. First of all, there should be no flight phase in sports walking, that is, there should always be contact with support. Secondly, it is necessary to write in the complete combination of the support in the vertical moment, leaving the first limit. In sports walking, the technical basis is a cycle of movement, which consists of a double step, a step of the left foot and a step of the right foot. The cycle consists of:

- a) two stages of individual assistance;
- b) two-level support;
- c) two stages of stretching the non-swinging leg.

The period of bilateral support is very short-lived and sometimes it cannot be seen. The period of personal support is very mobile and is divided into two stages:

- 1) the phase of the solid front support;
- 2) push phase.

Research shows that during sports, all groups of human muscles are used, and the cardiovascular system works in a very efficient mode. Sports indicators are related to the development of physical qualities such as endurance, speed, coordination of movement. In addition, the sports walker needs active movement of the hip and calf joints, strong back muscles and well-stretched muscles of the lateral part of the abdomen. A sports walker differs from a regular walker in that two support positions are distinguished. At modern speeds, a sports car does not even count in two-wheeled conditions. Because there is an active movement of the hip joints around the vertical axis. For the very active movement of the sports walker, the supporting leg extends forward at the knee joint. According to the referee's new rules, in the front support position, the knee joints must be extended from the moment it is placed until the moment of standing.

In the vertical moment, there is a significant drop of the hip to the side of the non-swinging leg, which should never be confused with a lateral orientation of the hip joint of the supporting leg, which is a blunder. part of the judges.

The center of gravity shifts through the supporting leg during the forward step of the non-rotating leg, and the athlete simultaneously shifts their weight to the supporting leg as they make contact with the supporting leg. The body should not lean forward, as this will cause the knees to bend. In refereeing, the problem of determining the presence of the flight phase in sports walking often arises. Athletes in the international group often make a serious mistake, that is, they quickly miss the vertical moment of the supporting leg, pass it quickly, that is, in the back support position, they quickly support the leg without opening it. - they will support. In this movement, the





first causal phases of flight are hidden. Walking competitions are held on open field paths and ordinary roads (street, city, rural roads) at a distance of 3 km, 50 km. Participants of walking competitions should not lose the features of sports walking technique - contact with the road. In case of violation of this rule, the referee will exclude the athlete from the competition.

Jumping in athletics is divided into two groups: straight jump and long jump. First, the group includes the following: 1. Running and high jump; 2. Running and jumping with a stick. The second group includes: 1. Running and long jump; 2. Run and jump in three jumps. The first group of athletics jumps: a) running and high jump (k) is a cyclical exercise that requires the development of speed, strength, dexterity and elasticity. It is held between men and women in sports fields and arenas; b) running and vaulting (k) is a cyclical form, one of the most technically difficult exercises in athletics, which requires athletes to develop speed, strength, agility and flexibility, and is held both on and off the field. The second group of athletics: a) running and long jump (k) is a mixed type of exercise in terms of structure, which develops speed, strength and agility in athletes, it is held both on the field and on the field between men and women; b) running and triple jump (k) in athletics, which requires the development of speed, strength, dexterity, and flexibility from athletes, is one of the technically complex exercises held between men and women on the field and arena.

## DISCUSSION

The basis of the training is the general laws and regulations, which are the basis of the training process in all types of athletics. Among them are training goals and tasks, principles, main tools and methods, physical, technical, tactical, theoretical, psychological preparation, periodization of the training process. The main goal of an athlete's training is to achieve good health, all-round physical development and high sports results. It is important not only for sports, but also for preparing young people for professional activities and defense of the Motherland. In order to achieve the goal during training, the coach and the athlete must solve a number of tasks, the main of which are the following [2]:

- strengthening of health;
- achieving all-round physical development;
- formation of high-level special physical training;
- mastering the technique and tactics of the selected type of athletics;
- education of moral and voluntary qualities;
- acquiring theoretical knowledge;
- Mastering the experience of participating in competitions.

The listed tasks do not meet all the requirements for athletes. Different types of athletics, individual characteristics of athletes, periods and conditions of training require clarification and differentiation of tasks. Solving such a problem can be parallel or sequential. In some cases, the best result is achieved with a parallel solution, for example, the mastering of sports equipment is combined with the development of physical qualities. In others, more effectiveness is achieved by solving problems sequentially, for example, first

they increase the level of development of general endurance, and then - special. Consistent problem solving takes place over many years of training. However, there are often cases of a combination of parallel and sequential problem solving in sports practice. Depending on the age and physical fitness of athletes, periods and stages of training, attention is paid to tasks, less attention to others, and the ways of solving them change.

The existing differences between the types of athletics, of course, require a different approach to training. At the same time, there are common, mandatory methodological rules for the organization, planning and construction of the process of training athletes [1, 17]. Effective methods of developing various physical qualities - strength, endurance, speed, dexterity - have been developed. The ancient Greeks strove for harmonious physical development during training and achieved great success in this regard, as evidenced by the statues of athletes of that time that have survived to this day. Professional trainers (gymnasts) were able to distinguish between body types and recommended to participants when choosing one or another type of competition. The structure of the training was based on a four-day cycle. On the first day, preparatory exercises were carried out, on the second day the load was increased and maximum stress was reached, on the third day it was slightly reduced, and on the fourth day it reached the level necessary to maintain the body in a normal state. Before the training, the athletes warmed up and had a massage, and after the training, they took thermal baths. The period of preparation of the ancient Hellenes for the Olympic Games was quite long and was 11 months. The last month of this cycle was devoted to the direct preparation of the athletes before the competition. There is evidence that there was periodicity in the training of athletes in those days: four years of training were planned - from one Olympic Games to another. Trainings have become regular and intense, in which not only the knowledge and experience gained in sports, but also the achievements of medicine are widely used. Intense training was combined with a strict rest and nutrition regime, which was different for athletes preparing for performances in different athletics. During training, they not only developed physical qualities, but also learned rational methods of performing exercises, that is, what we now call technical training. In addition, exercises were performed both as a whole method and divided into parts. It should also be noted that, in contrast to the early history of the ancient Greek Olympic Games, when athletes often competed in several sports, later, in the process of gradual professionalization of athletes, a narrow specialization of athletes appeared. It has been. It made it possible to achieve the highest achievements in one or another type of athletics. Thus, the preparation of athletes for the Olympic Games in Ancient Greece was regular and intense. It uses not only the most effective means and methods of education, but also knowledge in the fields of medicine, hygiene, rational nutrition, and various massages.

## CONCLUSION

Thus, in the feudal ages, there were no special athletics competitions, but there is evidence that people held competitions in stone throwing, long and high jump, and sprinting on holidays. Later in Western Europe, running, jumping and throwing began to be included in the physical



training system of knights. At that time, there was no teaching method in these species. After a long period of stagnation, athletics began to take shape as a sport only in the second half of the 19th century.

With the birth of modern athletics, training methods began to evolve. At that time, preparation for competitions was understood in a very simplified way. For example, if an athlete participated in a 1,500-meter run, he would have to cover this distance several times a week. Athletes-jumpers trained only in jumping, and throwers only trained in throwing. After a few weeks of such training, the athletes participated in competitions, after which they rested until they had to prepare for new competitions. In the methodological works of Western European authors at the beginning of the 20th century, training of athletes was considered as repetition of exercises for a relatively short period of time - 4-8 weeks. The tasks of training athletes are solved sequentially. First, they developed the necessary physical qualities, then learned and improved the technique of running, jumping and throwing.

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# STUDIES ON ETHNOMEDICINAL PLANTS PRACTICED BY THE TRIBALS OF SUDIKONDA FOREST AREA, EAST GODAVARI DISTRICT, ANDHRA PRADESH

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## ABSTRACT

*Ethnobotanical field survey was conducted among the tribal population of Sudikonda forest, East Godavari district. The study documented 28 plant species as many as genera and 24 families used by the tribals for curing various human ailments. 37 practices were reported. Plant part wise analysis, root is used in 15 practices followed by leaf (8), tuber (3), Stem bark, root bark and seed (2) each and others.*

**KEYWORDS:** Ethnomedicine, Tribals, Sudikonda, East Godavari

## INTRODUCTION

India has the world's second largest concentration of the tribal population, next to Africa. The Scheduled Tribe (ST) population in India is 84,326,246 constituting about 8.2% of country's total population of 1,026,103, 289 belonging to over 550 tribal communities which includes 93 Primitive Tribal Groups (PTGs) and 227 ethnic groups. There are 35 ST communities living in the state of which 12 belongs to PTGs. The main tribes of study area are Konda Reddi, Konda Dora, Koya Dora, Konda Kammara, Konda Kapu, Manne Dora and Valmikis. Konda Reddis are the only Primitive Tribal Group of the area and they constitute about 33% of the total population.

Sudikonda forest range, East Godavari district is located under latitude 17°15' - 18°02' N longitude 81° 30' - 82°36'E. It has an average elevation of 200-400 meters. The Sudikonda forest range consisting 3 sections and 13 Beats under the area of 154.88 Sq. Kms. The area spreads around in 10 mandals namely, 1) Jaggampeta 2) Gokavaram 3) Addateegala 4) Eleswaram 5) Rampachodavaram 6) Gangavaram 7) Rajavommangi 8) Y.Ramavaram 9) Maredumalli and 10) Yellavaram.

## METHODOLOGY

The methodology and mode of approach for ethno-medico-botanical enumeration was adopted from the classical works of Jones (1941), Jain (1981, 1987 and 1989), Croom (1983), Bellany (1993), Chadwick and Martin (1994), Martin (1995), and Cotton (1996). Emphasis was given mainly to intensive field work in the selected tribal areas.

The exploration tours have been planned in such a way that they cover almost all tribal hamlets (beats) of Sudikonda forest and surrounding plain area and villages of East Godavari

district, 3 – 6 times in every season. The present investigation the ethno-medico-botanical field survey is undertaken during the period 2006 – 2008. The intensive field trips were made in the interior parts of the Sudikonda forest i.e., hamlets (beats) and plain area of the surrounding villages of the above forest information was gathered about the plants, which have medicinal values from the tribals / villagers who secured from their hereditary and ancestral line. Each field trip was 6 – 8 days duration covering 2 – 10 plain villages and 2– 6 tribal hamlets forest. During monsoon, trucking on hilly area was found to be strenuous and sometimes impossible due to skidding on muddy soil and flooded streams. Even in accessible and thickly forested, high hill tribal hamlets (pockets) like, Sudikonda, Mallavaraum, Molleru, Vemulova, Pidata mamidi, Sitapalli, Folks peta and Bhimavaram have also been covered during this study. During field visit we collected the data on ethnomedicinal plants from tribal vaidhyas and local people. The voucher specimens were collected and deposited in the Herbarium of the Department of Botany, Andhra University, Visakhapatnam.

## ENUMERATION

The plants are arranged in an alphabetical order with their botanical name along with family name, vernacular name, method, mode and duration of treatment.

*Acacia chundra* Roxb.ex.Rottl. Mimosaceae Sandra The twigs are also used as toothbrush in the case of spongy infected gums.

*Alangium salvifolium* Linn.f Wanger in Engl. Alanginaceae Ankolam



Root decoction is used for fever and leaf extract for skin diseases. Leaves are used in rheumatic pains.

*Cardiospermum halicacabum* Linn. Sapindaceae Tapakaya teega

Root extract filtered and administered for menstrual disorders and white discharge.

*Cassia occidentalis* Linn. Caesalpiniaceae Kasintha  
Dried root mixed with that of *Tephrosia purpurea* ground with jaggery and the paste administered for paralysis.

*Cissampelos pareira* Linn Menispermaceae Adavibanka teega.  
Roots are used by tribals for dyspepsia, cough and for Snake bites.

*Dichrostachys cinerea* (Linn.) Wt. & Arn., Mimosaceae  
Veluthuru Chettu

Leaf paste applied for skin diseases, root bark crushed with black pepper and garlic the extract given for bone fracture.

*Erythroxylum monogynum* Roxb. Linaceae Pagadam chettu  
Leaf juice administered for jaundice by Koyas, leaves crushed with black pepper and the extract given to kill intestinal worms.

*Gmelina arborea* (Roxb.) Hort. Verbenaceae Gummudu  
Bark is used for fractures. The juice of the leaves is used in gonorrhoea, cough etc.

*Hemidesmus indicus* (Linn.) R. Br. Periplocaceae  
Sugandhipala.  
Root decoction is usually used by local people for curing high fever and skin diseases.

*Naringi crenulata* (Roxb.) Nicolson Rutaceae Torri velaga  
Stem bark crushed with that of *Strychnos potatorum* the extract mixed with a little salt and administered for dysentery and fever by Valmikis.

*Oroxylum indicum* (Linn.) Vent. Dec. Bignoniaceae Pampini  
Stem barks decoction administered for jaundice and epilepsy by Koyas.

*Phyllanthus amarus* (Linn.) Schum & Thonn Kongl.  
Euphorbiaceae Nela Usiri.  
Plant paste applied for scorpion-sting and for tooth ache and also mixed with curd given orally for jaundice.

*Piper nigrum* Linn. Piperaceae Miriyalu  
Root extract given orally for dysentery and as an emetic. Root paste used for tooth ache.  
Leaf juice given for cold and cough. Seeds used as a spice and as an ingredient in various medicines.

*Plumbago zeylanica* Linn. Plumbaginaceae Tella Chitramulan  
Root paste made into pills and orally administered for abortion and Root tied to the shoulder for malarial fevers.

*Pterocarpus marsupium* Roxb. Fabaceae Yegisa.  
Wood is used as an astringent and toothache the flowers are said to be used in fever, the bruised leaves are considered useful as an external application for boils, sores and skin diseases.

*Pueraria tuberosa* (Roxb.) DC. Prodr. Fabaceae Nela Gummadi  
Tuber extract mixed with a little sugar and administered for peptic ulcers and the tuber as vegetable for tribals.

*Rauvolfia serpentina* (Linn) Benth. ex. kurz. Apocynaceae Sarpagandhi  
Decoction prepared from root bark is usually taken by older people for relief and for controlling light blood pressure. Root yields reserpine which is used as a remedy in high blood pressure. Root paste is used for snake bite.

*Smilax zeylanica* Linn. Dioscoreaceae Firangi chettu  
Tubers crushed with long pepper and the extract administered for paralysis.

*Solanum anguivi* Lamk. Solanaceae Vankudu  
Leaves are applied locally to relieve pain. The juice of berries is used in sore-throat. Roots, seeds are also administered as an expectorant in asthma and cough.

*Sphaeranthus indicus* Linn. Asteraceae Bodataram  
The root and inflorescence powder with goat milk administered for impotency.

*Sterculia urens* Roxb. Sterculiaceae Kovela  
Stem bark ground with turmeric, the filtrate mildly heated and administered for Rheumatic pains and peptic ulcers.

*Strychnos potatorum* Linn Loganiaceae Induba  
Root bark or seed paste applied for snake bite and scorpion-sting. Stem crushed with black pepper and the decoction administered for asthma.

*Syzygium cumini* Linn Euphorbiaceae Neredu.  
Seed Powder is used in the treatment of diabetes.

*Tinospora cordifolia*: (Wild) Hook.f. Thoms. Menispermaceae Tippateega.  
The root is a powerful ametic and is used for visceral obstructions and its waters extract is used in leprosy. Decoction of the leaves is used in diabetes.

*Trianthema portulacastrum*: Linn. Aizoaceae Galijeru  
Leaves are made into paste and decoction control liver and kidney troubles.

*Trichosanthes dioica* Lark Caricaceae Avugudateega  
Tuber decoction administered for giddiness, fruit pericarp pastes mixed with breast milk and honey given for orally to infants for cough and fever.

*Vanda tessellata* (Roxb) Hook. Ex. G. Don in loud.,  
Orchidaceae Sanna rastram



Leaf juice poured into the infected ears by Koyas and also applied for skin diseases. The root paste is plastered for bone fracture.

*Wrightia arborea* Dennst. Apocynaceae Tedlapala Latex applied for Snake bite.

## DISCUSSIONS

Plants have been one of the most important sources of food, shelter and medicine since the dawn of human civilization. Until the middle of the 19<sup>th</sup> Century, plants were the main therapeutic agents used by humans, and even today almost 80% of the World Population rely to some extent on medicinal plants for their primary health care needs. The use of nearly 3000 plant species as food during the course of human civilization has been documented, but only about 150 species have been cultivated (NRC. 1982) and less than 10 plant species are meeting over 90% of the world food demand (Wilkes, 1981). Human survival still cannot be imagined without plants. The importance of plants is substantial and reflected in the large variety of products such as food, fodder, fibre, vegetables, medicinal plants, and aromatic plants. In the present investigation, Sudikonda Forest in and around the areas indicated that nearly 60% of the studies were related to medicinal plants and Ethno-medicine, underlining that Ethno-medicine is utmost important in the Sudikonda Forest of East Godavari District, Andhra Pradesh.

The present investigation documented 28 plant species as many as genera and 24 families used to cure asthma, abortion, boils, blood pressure, bone fracture, cough, diabetes, dysentery, dyspepsia, emetic, epilepsy, fever, gonorrhoea, infected gums, jaundice, kill intestinal worms, kidney problems, menstrual disorders, malaria, pain, paralysis, rheumatic pains, scorpion sting, snake bites, skin diseases, sores, tooth ache, ulcers, white discharge, by Konda reddis, Koyas, Konda Kapu, Konda Dora, and Valmiki of sudikonda forest inhabited tribals. Root is used in 15 practices followed by leaf (8), tuber (3), Stem bark, root bark and seed (2) each and others. Habit wise analysis shows the dominance of shrubs (9) followed by climber (8), trees (7) and herb (4). Further, scientific assessment of these medicines on phytochemistry, biological activity and clinical studies are necessary. This may provide a lead in the development of drugs to be used in the modern system of medicine.

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# PREFERENCE OF EMPLOYING THE ECLECTIC APPROACH IN TEACHING EFL

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## ABSTRACT

*The article describes the importance of the eclectic approach and its advantages, as teachers could customize their instruction to cater to individual student needs instead of using a uniform approach, that is especially useful in EFL settings where students have varying language proficiency and learning styles. The article deals with the approach eclecticism as a methodology for teaching foreign languages requires the teacher to have a broad knowledge of the language that is being taught. In the article, the author emphasizes that it is a flexible and effective teaching method that can improve language learning results for the EFL students.*

**KEY WORDS:** *English as a foreign language (EFL), eclectic approach, education, EFL learners, learning style, methodology, teaching.*

## INTRODUCTION

Since, the status of teaching a foreign language in our society has changed significantly. The rapid entry of Uzbekistan into the world community and economy, the economic and socio-cultural situation in the country required a huge demand for knowledge of foreign languages, developed a powerful motivational base for their study [2]. Currently, knowledge of foreign languages is no longer a luxury, but a necessity that there are plenty of opportunities for learning them, not to mention teaching methods.

The eclectic approach for teaching English as a foreign language (EFL) combines different language teaching techniques to create a flexible approach to language instruction. Rather than using a singular method, teachers who adopt this approach use a range of methods for a more comprehensive and effective teaching experience. While there is no conclusive study on the efficacy of the eclectic approach, there is evidence to suggest that it can be an effective method. A literature review published in the Journal of Language Teaching and Research shows that the eclectic approach can lead to higher student motivation, engagement, and better language learning outcomes. Other studies have also shown that students who were taught using this approach had higher levels of language proficiency and confidence in their ability to use English. The eclectic approach's flexibility is one of its advantages, as teachers can customize their instruction to cater to individual student needs instead of using a uniform approach, which is especially useful in EFL settings where students have varying language proficiency and learning styles. Although more research is necessary to fully understand the effectiveness of the eclectic approach in teaching EFL, it is apparent that it is a flexible and effective teaching method that can improve language learning outcomes for students.

## LITERATURE REVIEW

According to Larsen-Freeman, and Mellow employed the term "eclectic approach" to language teaching process. It is stated that this is mixed process of structural, communicative approaches. When the topic belongs to structures, teacher has to follow structural approach. If the topic belongs to speaking activity, he has to follow communicative approach. If the teacher teaches grammar topic, he could follow inductive or deductive, depends on the age and background of the students. When he deals the topic phrases or idioms, he can use bilingual if students belong to rural background. For instance, it will be a reading topic he can use reading and audio lingual method. Therefore, it is combination of traditional modern approaches. It will offer better opportunities to learn language skills. It gives good result without pressure on learner.

Furthermore, as Al Hamash pointed out that eclectic method is employed as one of the main methods in especially foreign language learning inside the classroom. Not all students might respond to a dealing situation in the same way, in this case, teachers may try other techniques from other approaches. Eclecticism is defined as a type of methodology that makes use of the different language learning approaches instead of sticking to one standard approach [1, p. 22].

The eclectic approach in teaching English has been a topic of discussion in language teaching and learning research. This literature review aims to examine the advantages and disadvantages of using the eclectic method in teaching English.

Advantages: One of the advantages of the eclectic approach is that it allows teachers to draw on a range of teaching methods and techniques. This enables them to tailor their instruction to meet the specific needs of individual students. A study by Dincer and Yesilyurt found that the eclectic approach positively affected learners' language achievement and attitudes towards language learning.



Additionally, the eclectic approach can enhance student engagement and motivation. This is because it offers a variety of teaching methods that can make language learning more enjoyable and less monotonous for students. The eclectic approach has also been found to lead to better language learning outcomes [12]. A study by Zhang and Goh [11] showed that students who were taught using the eclectic approach demonstrated higher levels of language proficiency and greater confidence in their ability to use English than those who were taught using a traditional, grammar-based approach. Finally, the eclectic approach can promote cross-cultural communication and understanding by highlighting the cultural context in which the language is used.

**Disadvantages:** One of the main criticisms of the eclectic approach is that it can lack coherence and consistency. Teachers who use this approach may struggle to create a clear and structured course plan. Additionally, it can be challenging to balance the different teaching methods and techniques used in the eclectic approach [12]. Another disadvantage is that the eclectic approach may not suit all students. Some students may prefer a more structured, grammar-based approach to language learning [11]. Finally, the eclectic approach may require more time and effort on the part of the teacher, as they must select and adapt teaching methods to meet the needs of their students [12].

Overall, the eclectic approach in teaching English has several advantages, including flexibility, improved student engagement and motivation, and better language learning outcomes. However, it is important to consider the potential disadvantages, such as lack of coherence and suitability for all students, before implementing the eclectic approach in language teaching.

## METHODOLOGY

In the methodology, just like many years ago, the issue of finding and choosing the most effective and rational methods of teaching foreign languages that meet modern learning conditions and meet the requirements of modern education standards is still relevant and remained unsolved. Knowledge of the history of foreign language teaching methods will help the novice teacher to navigate freely in the choice of teaching methods and techniques, rationally combine them in their work, consciously and creatively apply various teaching methods. The communicative system-activity approach in its modern form is a synthesis of proven methods and techniques for creating the general foundations for teaching a foreign language [3, p. 33-34].

When we analyze other methodologists' opinions, we can see that an eclectic choice of teaching methods means a wise, intelligent choice of teaching and learning methods. They could justify the actions of teachers, since teachers are familiar where and when to apply this or that teaching method in such a way as to allow students for an active participation in the educational process, making various stages of methodological techniques available to them. They believe that there is a circulating methodology that is composed of or supplemented by different approaches. This method is characterized mainly by polyvalence, that is, flexibility and adaptability. Eclecticism as a methodology for teaching foreign languages requires the teacher to have a broad knowledge of the language he teaches,

various teaching methods that he decides to apply to teach students. The more competent a teacher is in various teaching methods, the less the teacher needs a particular method, and he feels able to apply any technique in any situation. Therefore, eclecticism will encourage teachers to improve their education and teaching skills.

However, language teachers might disagree about methodological evolution: some consider it a recurring phenomenon, while others see it as a spiral movement. Whatever the opinions, there is no doubt that didactics is constantly changing, sometimes slowly, but often radically towards modernization and efficiency. Indeed, the goal of didactics is to teach better, faster and therefore more efficiently.

## DISCUSSION

Moreover, external factors (social, political, economic) play a role in changes in teaching methods that is currently happening. The current eclecticism has the advantage of a flexible methodology capable of adapting to the various provisions of education-training, to which teachers must also adapt. However, in order to avoid inconsistency in teaching methods, adherents of eclecticism still need to choose the best option for an effective methodology. It should be taken into consideration that when choosing a teaching method, the teacher needs to take into account not only his own preferences, however, he should focus on the age, abilities, interests and psychological characteristics of students [4]. Focusing on them, the teacher will be able to choose the most appropriate and effective method.

Advantages of employing this method in the teaching process in the following: 1. Learners become attentive and answer 2. It can offer multiple opportunities to students to develop their own skills 3. It can improve active participation 4. It could make learning lively 5. It can break monotony 6. It could promote control over the class and students have interest in class and it allows class discussion [2, 5]. These findings confirm Krashen's input hypothesis which assures that the best methods of second language teaching and learning supplied by comprehensive input and not forcing production. However, there are some drawbacks: 1. Practical eclecticism may not meet the criterion of efficiency. Theoretical eclecticism is suspicious on logical theoretical grounds. 2. It is time consuming. It might not be helpful to particular regional medium of language 3. It might not be helpful to slow learners 4. If the teacher does not have command over all methods and approaches, students might confuse and be unmotivated [3, 6].

Furthermore, there is a risk of over-reliance on certain teaching methods or techniques, which may lead to neglect of other important areas of language learning. For example, if a teacher places too much emphasis on conversation-based teaching, students may not receive adequate instruction in grammar or writing.

Therefore, the eclectic approach in teaching English as a foreign language has both advantages and disadvantages. Its flexibility and potential for improved language learning outcomes make it an attractive option for teachers, but its implementation can be challenging, and there is a risk of neglecting important areas of language learning. Therefore, it is important for teachers to carefully consider the advantages and



disadvantages of the eclectic approach before using it in their instruction.

## CONCLUSION

Thus, we can conclude that when the teacher is passionate, be motivator and encourage students take part in different language activities without hesitation like group whereas few students participate in language activities if teacher is confine to one approach. And also, learners can enhance communication skills by practicing and participating in foreign language activities. Also, it is obvious that teacher plays an active role in improving language skills. We assume that eclectic approach could be useful for making the class more interesting, without monotony and as well as student's communication skills and objectives of language will be leveled up to some extent. The eclectic approach in teaching English offers several advantages. Firstly, it provides teachers with a range of methods to choose from, allowing them to tailor their instruction to meet the specific needs of individual students. This is particularly important in EFL contexts where students have varying proficiency levels and learning styles. Secondly, the eclectic approach promotes student engagement and motivation. By incorporating a variety of teaching methods, students are more likely to stay interested and engaged in the learning process.

This approach can also make language learning more enjoyable and less monotonous for students. Thirdly, the eclectic approach can lead to better language learning outcomes. Research suggests that students who are taught using the eclectic approach show higher levels of language proficiency and greater confidence in their ability to use English than students who are taught using a more traditional, grammar-based approach. Another advantage of the eclectic approach is its flexibility. Teachers can draw on different methods and techniques to create a personalized and adaptable teaching experience. This allows teachers to adjust their instruction as needed and respond to the changing needs of their students. Finally, the eclectic approach can promote cross-cultural communication and understanding. By incorporating different teaching methods that highlight cultural aspects of language, students can gain a deeper understanding of the cultural context in which the language is used. This can be particularly useful for students who plan to use English in a global context or for those who are learning English for specific purposes, such as business or academic communication.

Overall, the eclectic approach in teaching English offers many advantages, including flexibility, improved student engagement and motivation, and better language learning outcomes.

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# MIRIZZI SYNDROME, DESCRIPTION, ETIOLOGY, EPIDEMIOLOGY, PATHOPHYSIOLOGY, CLASSIFICATION, HISTOPATHOLOGY, PRESENTATION, DIAGNOSIS, TREATMENT, PROGNOSIS AND COMPLICATIONS

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## ABSTRACT

**Introduction:** Mirizzi's syndrome, named after the Argentine surgeon Pablo Luis Mirizzi who first reported the syndrome in 1948, when he showed a history of a patient who presented a calculus of considerable size impacted in the infundibulum of the gallbladder, which generated jaundice due to extrinsic compression of the common bile duct. We speak of Mirizzi syndrome when there is an impaction of a calculus in the infundibulum of the gallbladder or the cystic duct that crushes the common hepatic duct, weakening it and forming a cholecystocholedochal fistula.

**Objective:** to detail the current information related to Mirizzi syndrome, description, etiology, epidemiology, pathophysiology, classification, histopathology, presentation, diagnosis, treatment, prognosis and complications.

**Methodology:** a total of 45 articles were analyzed in this review, including review and original articles, as well as clinical cases, of which 33 bibliographies were used because the other articles were not relevant to this study. The sources of information were PubMed, Google Scholar and Cochrane; the terms used to search for information in Spanish, Portuguese and English were: Mirizzi Syndrome, obstruction, common bile duct, gallstone, hepatic duct.

**Results:** Mirizzi syndrome is relatively infrequent, occurring in only 0.1% of patients with gallstones with findings in 0.7% to 25% of patients who have undergone cholecystectomy. Between 5% to 28% of individuals with Mirizzi syndrome had gallbladder cancer following cholecystectomy. The modification of the anatomy and the cholecystocholedochian fistula increase the risk of damage to the biliary tract in the surgical act of cholecystectomy. Regarding classification type I was present in 40% of cases, type II, type III and type IV in 20% each.

**Conclusions:** Mirizzi syndrome, also called extrinsic biliary compression syndrome, is an infrequent complication of chronic cholecystitis and cholelithiasis secondary to obliteration of the cystic duct or gallbladder infundibulum (Hartmann's pouch) generated due to the impact of one or more calculi. The impacted stone plus the inflammatory response produces the obstruction of the external biliary tract, with which the mucosa will erode and form a cholecystohepatic or cholecystocholedochian fistula. The risk of presenting gallbladder cancer increases with Mirizzi syndrome. The most



common presentation is obstructive jaundice and right upper quadrant pain accompanied by epigastric pain, dark urine, nausea, tachycardia, vomiting, anorexia, fever and chills. The beginning of the diagnosis should be made with the usual tests for cholecystitis. Right upper quadrant abdominal ultrasound is currently the first-line study for the diagnosis of gallstones and acute cholecystitis. If a gallstone in the common bile duct is suspected by ultrasound, magnetic resonance cholangiopancreatography should be performed. This is followed by endoscopic retrograde cholangiopancreatography (ERCP) performed by a trained gastroenterologist. Conventionally the treatment of Mirizzi syndrome is surgical. Cholecystectomy is the first-line treatment; in case of fistula, open cholecystectomy with bilioenteric anastomosis, possibly with a Roux-en-Y is effective. In individuals without fistula, the prognosis is usually positive. In elderly patients with multiple comorbidities and high risk of surgical complications, non-surgical methods should be considered to minimize the morbidity associated with surgery.

**KEY WORDS:** Mirizzi, syndrome, obstruction, duct, calculus, common bile duct, hepatic.

## INTRODUCTION

Mirizzi's syndrome, named after the Argentine surgeon Pablo Luis Mirizzi, graduated from the Faculty of Medical Sciences of the National University of Cordoba in 1915, who is recognized for performing the first intraoperative cholangiography in 1931, generating a strong impact in the field of biliary surgery in the twentieth century. Pablo Luis Mirizzi reported the syndrome for the first time in 1948, showing a history of a patient who presented a calculus of considerable size impacted in the infundibulum of the gallbladder, which generated jaundice due to extrinsic compression of the common bile duct (CBD) accompanied by inflammation directed from the gallbladder to the CBD. This syndrome occurs in about 1% of individuals with cholelithiasis and is an infrequent complication. We speak of Mirizzi syndrome when there is an impaction of a calculus in the gallbladder infundibulum or the cystic duct that crushes the common hepatic duct, weakening it and forming a cholecystocholedochal fistula. This disease is closely related to gallbladder cancer, in addition to presenting obstructive jaundice. The preoperative diagnosis of this syndrome is complex and sometimes goes unnoticed, however there are tools that facilitate the diagnosis and confirmation of the same as abdominal ultrasound, endoscopic retrograde cholangiopancreatography, percutaneous cholangiography or cholangio-resonance. Treatment is surgical, using a laparoscopic or open approach depending on its stage(1-3).

## METHODOLOGY

A total of 45 articles were analyzed in this review, including review and original articles, as well as cases and clinical trials, of which 33 bibliographies were used because the information collected was not important enough to be included in this study. The sources of information were Cochrane, PubMed and Google Scholar; the terms used to search for information in Spanish, Portuguese and English were: Mirizzi Syndrome, obstruction, common bile duct, gallstone, hepatic duct.

The choice of bibliography exposes elements related to Mirizzi syndrome: description, etiology, epidemiology, pathophysiology, classification, histopathology, presentation, diagnosis, treatment, prognosis and complications of the disease.

## DEVELOPMENT

### Description

Mirizzi syndrome, also called extrinsic biliary compression syndrome, is a rare complication of chronic cholecystitis and

cholelithiasis secondary to obliteration of the cystic duct or infundibulum of the gallbladder (Hartmann's pouch) caused by the impact of one or more stones. This causes crushing of the adjacent bile duct, which ends in a total or partial obstruction of the common hepatic duct to subsequently cause an alteration of hepatic functionality. Extrinsic biliary compression goes hand in hand with inflammation of the gallbladder, sometimes presenting a cholecystocholedochal fistula giving rise to a Mirizzi syndrome type II, III, IV or in the absence of it a Mirizzi syndrome type I. The origin of Mirizzi syndrome may be due to the inflammatory process following erosion caused by a gallstone impacted in the cystic duct, in the infundibulum of the gallbladder or Hartmann's pouch(4-8).

### Etiology

Gallstones are usually generated by bile stasis, when bile is not completely evacuated from the gallbladder, it precipitates as sludge and therefore forms stones. Biliary obstruction can also generate gallstones, including bile duct stenosis and cancers. The most frequent origin of cholelithiasis is cholesterol precipitation. The next form of gallstones are pigmented gallstones, which are due to increased red blood cell devascularization in the intravascular system, resulting in increased concentrations of bilirubin, which then accumulates in the bile, giving a black color. The third form of gallstones are pigmented mixed stones, a mixture of calcium substrates such as calcium phosphate, calcium carbonate, bile and cholesterol. The fourth form consists primarily of calcium and occurs in individuals with hypercalcemia. When a single large gallstone or multiple gallstones impact the lower external gallbladder sac an external compression of the common hepatic duct or common bile duct may occur. This appears to correlate with a flexible Hartman's pouch, causing inflammation and leading to subsequent fistula formation(1,9).

### Epidemiology

Gallstones are generally asymptomatic, the prevalence of these increases as age increases, the probability of developing them is higher in women and in obese people, because of the greater biliary secretion of cholesterol, on the other hand people who are fasting or who present a sudden considerable weight loss present a greater predisposition to the formation of gallstones because of biliary stasis. There is a connection between hormones and gallstones; estrogen generates an increase in biliary cholesterol and decreases the contraction of the gallbladder, that is why women who take contraceptive drugs containing estrogen or in



reproductive age are twice as likely to generate gallstones compared to men. Mirizzi's syndrome is relatively uncommon, occurring in only 0.1% of patients with gallstones, with findings in 0.7% to 25% of patients who have undergone cholecystectomies. This syndrome usually presents a higher incidence in idoses, however the prevalence of cases in males or females does not seem to have a particular preference for either, the same happens with ethnicity, however more studies on the subject are needed. Mirizzi's disease presents a connection with the risk of presenting gallbladder cancer(1-3).

Anatomical variants of the cystic duct are common, and are arranged in advance of the formation of Mirizzi syndrome in 18-23%. The modification of the anatomy and the cholecystochochoediac fistula increases the risk of damage to the bile duct in the surgical act of cholecystectomy(4,10,11).

### Pathophysiology

Gallstones form when the components of bile reach the limit of their solubility. As the concentration of bile in the gallbladder increases, it becomes supersaturated with these components forming small crystals. These crystals get stuck in the gallbladder mucosa, generating sediments. These crystals can increase in size and generate large and/or multiple stones. The latter sometimes generate cholecystitis symptoms, and can also cause jaundice when impacted in a flexible Hartman's pouch. With the evolution of this condition, it leads to the creation of internal fistulas from the gallbladder to the common hepatic duct (CHD), the duodenum and the common bile duct. In other words, the impacted stone plus the inflammatory response produces the obstruction of the external bile duct, whereby the mucosa will erode and form a cholecystohepatic or cholecystocholedochal fistula, which show some degree of connection between the gallbladder and the bile duct. (1,5,7,12,13).

### Classification

A clinical study showed with respect to classification that type I was present in 40% of cases, type II, type III and type IV in 20% each(14).

**Table 1. Algorithm of classification of the various stages of Mirizzi syndrome, assigned by categories.**

#### I: without fistula.

- IA: presence of cystic duct
- IB: obliteration of the cystic duct.

#### II to IV: with fistula.

- II: defecto menor al 33% del diámetro del conducto hepático común.
- III: defecto del 33 % al 66 % del diámetro del conducto hepático común.
- IV: defecto de más del 66 % del diámetro del conducto hepático común.

Source: Jones MW, Ferguson T. Mirizzi Syndrome (1).

### Histopathology

In terms of histology, findings of acute or chronic cholecystitis may be found. The gallbladder wall thickens variably and

sometimes presents adhesions to the serosal surface. Smooth muscle hypertrophy is also found, mainly in prolonged chronic indoles. It is more usual to observe calcium bilirubinate or cholesterol stones, these modify their size and presentation sometimes even showing in the totality of the light of the gallbladder or becoming multiple. Disease without stones may show sludge or extremely viscous bile, which may suggest that they are precursors to gallstones and are generated from increased bile salts or stasis; normal appearing bile may also be found. Multiple bacteria appear with a frequency of 11% to 30%. In cholecystitis specimens, the so-called Rokitansky-Aschoff sinuses are present in 90%, which is practically a hernia of the intraluminal sinuses due to increased pressure probably related to the ducts of Luschka. The mucosa presents inflammation in different categories. The risk of presenting gallbladder cancer increases with Mirizzi's syndrome, the exact reason is not yet expressly established, however, it is thought to be due to the continuous and repetitive irritation of the area and also due to chronic biliary stasis. Some studies show that between 5% to 28% of individuals with Mirizzi syndrome had gallbladder cancer after cholecystectomy and all of these diagnoses were made with pathological examination of the specimens after surgery(15,16).

### Presentation

The most common presentation is obstructive jaundice and right upper quadrant pain, both varying from 50 to 100% of affected individuals. Epigastric pain, dark urine, nausea, tachycardia, vomiting, anorexia, fever and chills may also be present. And it is usually associated with those who present acute cholecystitis, choledocholithiasis and pancreatitis (4,5,7,17,18).

### Diagnosis

Diagnosis should begin with the usual tests for cholecystitis. Right upper quadrant abdominal ultrasound is currently the first-line study for the diagnosis of gallstones and acute cholecystitis. It has a specificity rate of 90% although it is operator dependent. Ultrasound can show stones as small as 2 mm, sludge and gallbladder polyps. The specific ultrasound findings that point to acute cholecystitis as opposed to cholelithiasis are thickening of the gallbladder wall greater than 3 mm, positive ultrasound Murphy's sign and pericholecystic fluid. Other studies such as tomography and nuclear magnetic resonance could be used, however the sensitivity is not very high for cholecystitis; in radiographs gallstones can be seen in 10% due to the fact that some of them have high calcium content, air can also be seen in the biliary tree when accompanied by an enteric fistula. In the hypothesis of calculi in the common bile duct by ultrasound, a magnetic resonance cholangiopancreatography (MRCP) should be performed. If visualized in this study, it is followed by endoscopic retrograde cholangiopancreatography (ERCP) performed by a trained gastroenterologist. Percutaneous transhepatic cholangiography (PTHC) may be helpful in the diagnosis to identify common bile duct stones if ERCP is not possible. Usually, the diagnosis of Mirizzi's syndrome is mistaken for a common bile duct stone or missed entirely postoperatively(1,19).



Preoperative diagnosis of the syndrome is essential to avoid complications such as cholecystobiliary or cholecystoenteric fistula, as well as iatrogenic biliary damage caused by the chronic inflammatory process. Safety in the correct diagnosis is essential to choose the surgical approach technique to be used(20).

The Mirizzi's disease presents a very colorful panel of symptoms among which abdominal pain is the most important presenting an incidence of 65.7-100 %, followed by jaundice with 45-87.5 %, nausea and vomiting with 31-62 %, cholangitis reaching values up to 56 %, fever with 21-42 % and anorexia 11-29.2 %. Murphy's positive sign is evident in the physical examination at approximately 50%. The average duration of symptoms is 3 to 24 months, however some studies show that symptoms in individuals suffering from uncomplicated gallstones remain half as long as in those with Mirizzi's disease. The percentage of asymptomatic individuals is between 3.7-17%. As for laboratory tests in the group of individuals affected with Mirizzi's syndrome the most frequent are white blood cell count (WBC), aspartate aminotransferase (AST), alanine aminotransferase (ALT), bilirubin, alkaline phosphatase (ALP) and gamma-glutamyl transpeptidase (GGT). Laboratory data commonly show elevated levels of alkaline phosphatase (ALP), bilirubin and transaminase. In one study leukocytosis was shown in 73.4% of individuals with cholangitis, acute cholecystitis or pancreatitis along with Mirizzi syndrome, mean WBC levels are usually near the upper limit of normal levels or higher. ALT and AST levels are elevated in 39-98% of tests for ALT and between 37-89% for AST. Some literature shows mean ALT and AST levels many times higher than the normal level reaching 286 and 263 U/L, respectively. However, studies report a significant drop in AST and ALT levels from more than 250 U/L to less than 100 U/L in cholecystobiliary fistula, while other studies show an exponential increase in the levels of the parameters with the progression of the fistula, however neither value exceeds 90 U/L. The ALP test increases in up to 93.8% of patients with average levels of 324-402 U/L, and can reach up to 1236 U/L. Total bilirubin values are elevated in 92.2%. Mean bilirubin levels are commonly reported to range from 2 to 9.9 mg%. The literature is consistent in GGT levels, elevated to mean values of 204-1018 U/L (4,17,21-26).

In recent years, high levels of the tumor marker CA 19-9 with values greater than 20,000 U/mL have been shown in patients with Mirizzi type II or higher categories of the syndrome; however, there are few reported cases and therefore CA 19-9 is not useful as a screening test due to its low sensitivity in early stages. Hyperbilirubinemia could be a confounding factor because it is associated with higher CA 19-9 values (4,5,27).

Among the differential diagnoses there are several conditions, among the most common that present similar symptoms are(1,28):

- Peptic ulcer disease.
- Pulmonary embolism.

- Inflammatory bowel disease.
- Irritable bowel disease.
- Gastroesophageal reflux disease.

The presence of jaundice in combination with the other symptoms that occur in Mirizzi syndrome is usually obfuscated with different etiologies such as:

- Common bile duct stones.
- Pancreatic tumors.
- Ascending cholangitis.
- Biliary cancer.

Other clinical conditions to keep in mind that can pass for Mirizzi's syndrome are:

- Acute hepatitis.
- Drug-induced hepatitis.
- Ischemic liver disease.

### Treatment

Conventionally the treatment of Mirizzi syndrome is surgical, being effective in most cases, however some patients between 8-25% may require restoration of the bile duct by fistulization of the main bile duct. Cholecystectomy is the first line treatment in patients with Mirizzi syndrome, and the specific technique will vary according to the classification of the subtype. Several bibliographies contraindicate laparoscopic cholecystectomy in Mirizzi syndrome due to the risk of adhesions and inflammatory tissue in the triangle of Calot, which when dissection is attempted can lead to an unnecessary alteration in the biliary tract. On the other hand, other surgical literature assures that the laparoscopic technique is feasible, however the technique can be challenging. In those individuals with more advanced disease, a partial cholecystectomy is considered, which involves leaving the Hartman's pouch in place and removing the gallstones and the body of the gallbladder. This procedure decreases the incidence of damage to the bile ducts and hepatic portal. There is literature demonstrating that in case of fistula, open cholecystectomy with bilioenteric anastomosis, possibly with a Roux-en-Y is effective. In the surgical procedure it is advisable to methodically dissect the biliary structures, observe the common bile duct, establish the type and location of the fistula, relieve the obstruction, reconstruct the defect and provide appropriate drainage of the biliary tract(4,13,18,28-30).

### Prognosis

In those individuals who do not present fistula, the outcome of surgical treatment is known to be positive. Because of the distorted anatomy and the frequent rate of conversion to open cholecystectomy in these patients, some authors advise an open surgical approach for all individuals presenting Mirizzi's syndrome. In those individuals presenting with fistula the prognosis depends on the type of treatment that goes hand in hand which can be:

- Placement of a T-tube in the middle of the fistulas that are small or intermediate.
- Biliary bypass plus choledochojunostomy.



- Roux-en-Y placement for larger fistulas.

It should be taken into account that the longer the surgery and hospitalization time, the higher the risk of complications and at the same time the higher the mortality and morbidity. In individuals with several comorbidities in addition to a high risk of intraoperative complications, non-surgical methods should be chosen to reduce the risk related to the surgical intervention. In elderly patients with multiple comorbidities and high risk of surgical complications, non-surgical methods should be considered to minimize the morbidity associated with surgery. For prognosis, all factors must be taken into account since gallbladder cancer has also been associated with Mirizzi syndrome(1,31,32).

- Complications.
- Among the most frequent complications of gallstone disease are:
- Acute cholecystitis.
- Acute pancreatitis.
- Ascending cholangitis.
- Gangrenous gallbladder.

Among the least frequent within the complications of gallstone disease are:

- Mirizzi's syndrome.
- Cholecystocolocholedochal fistula.
- Biliary ileus.

Among the most frequent complications of Mirizzi syndrome due to prolonged inflammation are:

- Formation of cholecystobiliary fistulas.
- Formation of cholecystoenteric fistulas.

Among the less frequent complications of Mirizzi's syndrome due to prolonged inflammation are the following:

- Formation of cutaneous fistulas.
- Secondary biliary cirrhosis.
- Biliary stenosis of late onset.

Among the surgical complications in correlation with prolonged procedure time due to dense adhesions:

- Bile duct injury.
- Hemorrhage.
- Massive hemorrhage in Calot's triangle dissection.

All these are complications that can be seen in individuals with Mirizzi's syndrome(1,4,33).

## CONCLUSIONS

Mirizzi syndrome, also called extrinsic biliary compression syndrome, is a rare complication of chronic cholecystitis and cholelithiasis secondary to obliteration of the cystic duct or infundibulum of the gallbladder (Hartmann's pouch) generated due to the impact of one or more stones. The impacted stone plus the inflammatory response produces the obstruction of the external biliary tract, with which the mucosa will erode forming a cholecystohepatic or cholecystocholedochal fistula. Mirizzi's syndrome is relatively infrequent, appearing in only 0.1% of

patients with gallstones, with findings in 0.7% to 25% of patients who have undergone cholecystectomies. Between 5% to 28% of individuals with Mirizzi syndrome had gallbladder cancer following cholecystectomy. The modification of the anatomy and the cholecystocholedochal fistula increases the risk of damage to the biliary tract in the surgical act of cholecystectomy. In terms of classification, type I was present in 40% of the cases, type II, type III and type IV in 20% each. The most frequent presentation is obstructive jaundice and right upper quadrant pain accompanied by epigastric pain, dark urine, nausea, tachycardia, vomiting, anorexia, fever and chills. The beginning of the diagnosis should be made with the usual tests for cholecystitis. Right upper quadrant abdominal ultrasound is currently the first-line study for the diagnosis of gallstones and acute cholecystitis. If a gallstone in the common bile duct is suspected by ultrasound, magnetic resonance cholangiopancreatography should be performed. This is followed by endoscopic retrograde cholangiopancreatography (ERCP) performed by a trained gastroenterologist. Conventionally the treatment of Mirizzi syndrome is surgical. Cholecystectomy is the first-line treatment; in case of fistula, open cholecystectomy with bilioenteric anastomosis, possibly with a Roux-en-Y is effective. In individuals without fistula, the prognosis is usually positive. In elderly patients with multiple comorbidities and high risk of surgical complications, non-surgical methods should be considered to minimize the morbidity associated with surgery.

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# DEMOCRACY AND DEVELOPMENT: EXPLORING THE MISSING LINKS

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## ABSTRACT

*Democracy and development are two concepts that precipitate one another. Representative governments where there is freedom of speech, periodic elections, freedom of association, accountability, rule of law and the likes beget development. Meaningful development can only take place where the rule of law is observed. A country bedeviled by arbitrariness and great insensitivity cannot be said to be representative of the people because such polity is faced with tension, strife, political violence, marginalization, exclusion, deprivation and all forms of insecurity. The political leadership in Nigeria over the years has failed to deliver on the basic dividends of democracy thus, reducing the nation to a 'Hobbesian State of Nature' where survival and stomach infrastructure becomes a necessary consequence. Consequently, the political culture is largely at the participant and parochial levels of participation. Today we are faced with the challenge of vote buying as an average Nigerian is concerned more with what gets into his/her pockets for survival rather than what benefits the larger populace. Hence, playing the game according to the rule is farfetched. Therefore, the paper using documentary methods of data generation interrogates democracy and development in relation to exploring the lacuna. The study used the Marxian theory of Political Economy as the tool for analysis. The study also proffered solutions to identified problems.*

**KEY WORD:** *Democracy, Development, Political Economy, rule of law, accountability.*

## INTRODUCTION

With the advent of democracy in 1999, Nigerians felt relieved from draconian laws of the military which truncated the first, second and third republics. Thus, the populace was again in high hopes when democracy returned. We looked forward to seeing greater opportunities for infrastructural development and rule of law in governance than what we had experienced during the military regime. There was also the dream of inclusion and leadership accountability from the political leadership (; Okpa, Ugwuoke, Ajah, Eshioke, Igbe, Ajor, Ofem, Eteng & Nnamani, 2022). The expectations were high and jubilations exceptional.

As years progressed, the expectations and high hopes were taking a nose dive for obvious reasons of lack of accountability and failure to deliver on the campaign promises by those elected into political positions. With each passing term, it became obvious that the expectations are not met not for lack of resources but for insincerity, corruption and bad governance. Gradually, it became clear that most of the leadership of the nation is more concerned with their personal development and enrichment even to the detriment of the country. To ensure their

continuous stay in leadership positions, they make several promises and weep up sentiments during the electioneering. Some of these promises are never fulfilled while others are started halfway and abandoned only to be used as a campaign promise or party manifesto in the next elections (Ezeanya, Ajah, Okpa, Chinweze, Onyejebu, Enweonwu & Obiwulu, 2023).

From the above, one would be wondering what truly is the motivation of our leaders who have on several occasions displayed gross ineptitude with respect to delivering on the campaign promises. Most if not all of their campaign promises are developmental in nature. For instance, the 'second Niger Bridge' has been used as a party manifesto for about three periods of campaign. Today, there are indications that the work would be done but I am sure that it would again be repeated during the campaign for the next general elections. This explains why at a time like this, certain very basic things like good road, pipe borne water, power, food, and shelter are still used as party manifestos. From the above, one would be asking why our democracy is development-shy. I say so because certain parts of the country are yet to have any form of government presence yet



democracy is 19 years and 7 months old as at the time of writing this. The paper therefore, examines democracy and development in respect to exploring the missing link.

## DEMOCRACY

The term democracy has become a house-hold name in many countries of the world, including Nigeria. This is premised on the fact that it has become one of the most widely practised forms of governance in the modern world. Democracy as a form of government is fashionable because it among other things gives the people the opportunity to be part of the governance of the state. This flows from the traditional definition of democracy by Abraham Lincoln as “the government of the people, by the people and for the people.” Following its people oriented nature, it is expected that any democratic government should be people oriented both in theory and practice (Egbegi, Ajah & Ogbonnaya, 2018; Okpa, Ajah, Nzeakor, Eshioke & Abang, 2022).

Certain factors or indicators are essential in any democratic government: freedom of speech, rule of law, representative government, development, separation of power, active participation of the citizenry before, during and after elections. These factors are geared towards providing a better living condition for the people. For instance, the theory of rule of law holds that the constitution is supreme and should be the guiding principle for all the citizens including political office holders. This implies that the constitution, which by its very nature should be for the good of the people, must necessarily be followed by all to avoid the tendency of any form of arbitrary rule or authoritarian system of governance where the leader does whatever he/she wills, as he/she wills, because he/she wills (Iloma, Nnam, Effiong, Eteng, Okechukwu & Ajah, 2022).

Again, democracy is representative in nature. The representative aspect of democracy is to ensure that the demands and needs of the people are at least heard and attended to. The representatives are therefore in government to speak for the people bringing to the table their aspirations and demands in line with the constitutions of the nation. For instance, cases of bad road, total or partial eclipse with respect to power generation and lack of portable water for the people are brought to the central government where allocations and provisions are made to see that the needs of the people are met (Ajah, Chinweze, Ajah, Onyejebu, Obiwulu, Onwuama & Okpa, 2022). This is so important because the primary responsibility of any responsible government is to protect the lives and property of the people, and provide their basic and other forms of needs like power, water, shelter, road, employment, etc. of the people. Democracy therefore is a system of government that is people oriented.

In addition, periodic elections give every qualified citizen of the nation an opportunity to seek to be elected into any political office of his/her choice. Usually, most if not all those who seek to be elected into political offices give the impression that they

are going there to better the lives of the people (Ajah, Ajah, Ajah, Onwe, Ozumba, Iyoke & Nwankwo, 2022). In Nigeria for instance, we have had several slogans during campaigns like ‘Fresh Air’ ‘Change’ ‘Make Nigeria Work Again’ etc. The Nigerian situation is that in most cases, these candidates end up transforming the lives of the people as they promised they would. This is not to say that the past governments in Nigeria have not done anything remarkable for the people. Far from that. The reality however is that they live very little impact on lives of the common man on the street.

## DEVELOPMENT

The term development, all things being equal, should be a form of accompaniment of any democratic government. It has been described as the process of economic and social transformation that is based on complied cultural and environmental factors and their interactions. Development is multi-dimensional because it covers and occurs in every aspect of human existence. We have human development, cultural development, environmental development, educational development, health development, social development, and economic development (Ezeanya, Ajah, Ibenwa, Onuorah & Eze, 2022).

Human development is the process of enlarging people's freedoms and opportunities and improving their well-being. **Human development** is about the real freedom ordinary people have to decide who to be, what to do, and how to live as developed by economist Mahbub ul Haq (Ugwuoke, Ajah & Onyejebu, 2020). From the above, it becomes clear that freedom is a necessary condition for human development: freedom from both internal and external aggression, freedom to choose their life's dreams and aspirations. This freedom is meant to guide the people, the common man, in deciding who to be, what to be and how to pursue such dreams.

Human development is propelled by factors like education, equal opportunity, power, good roads, affordable housing scheme, functional and affordable health facilities, potable water, employment opportunity, security, and other recreational facilities. These factors ensure that individuals are given the platform to make their choices and excel in them. For instance, if the education sector **were effective and functional**, the citizenry would have the platform to be properly equipped both in theory and practice for the challenges of life (Okpa, Ugwuoke, Ajah, Eshioke, Igbe, Ajor, Ofem, Eteng & Nnamani, 2022). A good Engineering Department would most likely, all things being equal, give students the enabling environment to excel in the field of engineering. But in situations, like the one prevalent in Nigeria, where the education sector is paid lip-service, laboratories are nothing but empty halls with little or no equipment and marching technocrats, lecture halls are overcrowded and without public address systems, students lack the environment and resources to excel.





Similarly, in the face of insecurity as has become the norm in Nigeria, human development at best remains a theory. This is premised on the fact that other factors like power, education, pipe borne water, industries/factories etc cannot thrive in the face of insecurity. Investors, technocrats, experts and even voluntary workers in most cases find it difficult to operate in insecure environments and where all these opportunities are lacking, human development would be greatly and negatively influenced and dwarfed (Ezeanya, Ajah, Okpa, Chinweze, Onyejebu, Enweonwu & Obiwulu, 2023). In the North East for instance, investors would be unwilling to invest in the region because of the unfortunate incidents of Boko Haram menace. Consequently, those living in the region are denied the opportunities that come with such investments like employment and other social benefits. Human development is propelled by science and technology fuelled by power, security, good road and so on. However, these factors are lacking in Nigeria or at best very inadequate.

Capital Development/Infrastructural Development are another form of development that is based on the capital, physical and structural aspect of the community or country. Factors like good road, good house, power, pipe-borne water, hospitals, and other social amenities account for the infrastructural development of any nation. Capital development is based on the economic activities of the nation. Just like human development, infrastructural development is enhanced by factors like equal opportunity and security.

### THEORETICAL PERSPECTIVE

We shall hinge our study on the Marxist theory of neo-colonial states. This tool of analysis comparatively analyses the post colonial political economy of African States that predicates the state security and violence within these states. Even though Karl Marx is the major protagonist of this theory, he never called it Marxist theory of neo-colonial states but advanced its qualities to include:

- ❖ The post-colonial state is purely an instrument of class domination.
- ❖ The primitive accumulation with the state power is done by domestic power and certain external forces.
- ❖ The post colonial states are rentier states parceled out in Patron-Client chains to those who use the state power for selfish ends.

Some Marxist theorists like Miliband, Ake, Lenin and Ekeke have in their various studies included to the advancement of the post-colonial theory of the state. Miliband (1977:109) for instance, posits that the post-colonial states are dependent on the foreign forces that colonized them and thus the state is both the source of economic power and an instrument of accumulation of economic power as the state is the major means of production. Ake, on his part, observed that it is the economic factor which is the most decisive of all the other elements (social structure, political structure and belief system) of the society and which

largely determines the character of the others. Albeit not to say that, the economic structure is autonomous and strictly determines the others. All the social structures are interdependent and relate in complex ways. However, it is the economic factor, which provides the axis around which all the movement takes place, and imparts certain orderliness to the interaction (Ake, 1981:3-4). Consequently, the economic contact between the western capitalists and the African leaders led to the subsequent interaction of other aspects of social life that followed. Thus, by following the dynamics of the economic system, we see how it leads to the transformation of existing social structures and how it leads to the emergence of new social structures, particularly in African petit-bourgeoisie whose interest soon put it in opposition to the colonial system and overthrow of the colonial political system. The economic system which generated the changes is itself not overthrown. So, we have indigenous leaders who are in political office but with little economic base. By implication, the new rulers try to use the only tool they have, political power to create an economic base in order to strengthen their economic power. Thus, the political is influencing and even transforming economic structures and social structures despite the fact that the state is seen as the product of class struggle in the society. Meaning that the state emerged to mediate between antagonistic classes in order to maintain law and order in such a way that none of the groups will be consumed in fruitless struggle over the ownership of the means of production (Lenin, 1984:10-11). The neo-colonial states are parts and parcels of the class struggle it was supposed to moderate. Thus, the post-colonial states rather than maintain or moderate economic relations, became an instrument of domination, exploitation and intimidation of the subjects (Ekeke, 1986:12 in Ezeibe, 2011).

Invariably therefore, the leaders rather than allow market forces to determine economic activities intervene in almost every productive process. Their interest become high and above the states interest as they struggle to fill-in their pockets first before thinking about national development. This also comes into play when there is need for the development of a particular area and that is incompatible with the will of the leader(s) as the interest of leader(s) is considered primarily. We do not need to talk of times when contracts are awarded and contractors are made to pay some percentages to the awardees making it highly impossible to deliver good quality job because the contractors after paying huge amount as awardees' cut is left little or near insufficient amount to execute the contract. In this scenario, we have sub-standard projects and/or better still unfinished or abandoned projects leading to underdevelopment. We also have a country that is one of the highest oil producers but is incapable of refining crude oil into petrol, kerosene, gas and other finished products for domestic consumption. Rather than export finished products, exports crude oil and imports finished products. What a paradox? This demonstrates that the nature of any state plays an important role in the economic development as any economic



development can only take place if the state is a developmental state and this is bound by the vision and dreams of the leaders.

### **The lacuna between Democracy and Development:**

Every country is naturally endowed with human and natural resources for its development and survival. Though, the level of development and survival depend on the ability of the leaders to direct and redirect these resources for the greatest good of the populace. Then, the begging question is: has the human and natural resources available to the Nigerian state translated the fledgling democracy into an all inclusive system of governance that promotes socio-economic development, eradicate poverty and enhance science and technology that will metamorphose into development? What is the quality of the leaders? Do they have visions and dreams that can elicit development? How are the representatives chosen? Is it through free and fair election? Do they really have the mandate of the people? A visionless and/or dreamless leader(s) may not be able to translate human and natural resources to meaningful development. Such leaders may be overwhelmed by very little achievement in such a way that improvement and advancement may not be taken seriously. Again, such leader(s) may not take advantage of the resources that give them an edge over and above others. Let us use the twelve categories of competitiveness as enunciated by the World Economic Forum in its Global Competitiveness Report of 2017 to 2018 to examine the missing link of Nigeria's democracy and development:

**Institutions:** the interplay between public and private stakeholders determines the institutional field of the polity. How does the economy utilise the natural endowment? The policies and programmes of the country greatly affect the quality of the institutions of a country which in turn influence the competitiveness and growth. It affects investment decisions and the structure of production and indeed influences the pattern of benefit distribution and cost development strategies and policies. The pattern of public expenditure shows the level or extent of government's supportiveness to the private sector. How does public investment in infrastructure like transport, power, water, telecommunication etc look like? Does it directly support and promote the productivity of the private sector investments? How much task are the private stakeholders charged? Are they charged over or is it the highest marginal rate of corporate taxation used as a proxy for government disposition towards the private sector? Sound and sustainable development of an economy depends on if the private institutions are good. It is therefore expedient to ensure accountability and reporting standards that are transparent so as to forestall fraud and mismanagement that can promote good governance that can encourage investor-consumer confidence.

**Infrastructure:** An effective functioning of any country's economy is dependent on efficient and extensive infrastructure. When there is a high-quality and good road network, goods and services will be facilitated to the market as well as workers

moved to their place of work. Many scholars have observed road transport infrastructure as a significant economic promoter as well as the backbone of economic development activities for many industrialized countries (Pradhan and Bagchi, 2013; Lakshmanan 2011; Smith, 1880; Weber, 1928). A good number of researchers also favour the connection between transport infrastructure investments (infrastructure investment can be referred to as efforts committed (monetary and non-monetary) for the construction of new road networks and improvement of existing road networks) and a society's political, social and economic development (Achetzhanoy and Lustoy 2013; Rashidi and Samimi, 2012; Rowstow, 1962). Definitely road infrastructure investment encompass major political, economic and social processes enhance the riches and power of a country, expand market and minimize trade barriers leading to increase in productivity outputs and enhances mobility and quality of life for the populace (Kustepeli et al, 2012; Njoh, 2012). Road transportation infrastructure investment has since been seen as a subset or a part of the capita representing the primary foundation that bolsters all production works.

As a matter of fact, for those of us who live in Nigeria, it is no longer a story that a journey of one hour can take like four hours due to bad road network such as pot holes in the roads, you see vehicles that breakdown on the road causing traffic jam leading to go slow. We can just say that the roads incredibly lack maintenance that hampers movement from one location to the other.

Infrastructure investment can directly affect development in such a way that it can enhance connection of city to city, community to community, movement of goods and services facilitate infrastructural development such as schools, trading clusters and hospitals. It can also indirectly create jobs, stimulate individual and community creativity as well as stimulate investment activities, transform socio-cultural norms and create social and dynamics.

Uninterrupted power supply promotes business and enhances productivity. Even though Nigeria has abundant supply of natural resources like coal, hydro, natural gas, crude oil etc, the country yet is bedeviled by electricity problem which adversely affects the cost of goods and services. The cost of goods and services are high because industries have to generate their power themselves. For instance, a fabric which ordinarily would have been sown with ₦2,000 only now sows for ₦15,000 to ₦20,000 because of epileptic or near lack of power supply making the fashion designers to resort to the use of generating set. Almost all business sectors or even private homes resort to the use of generating set leading to high cost of gas and petrol. A report of the survey of twenty business centres in Enugu metropolis shows that the cost of power generation affects the cost of production of goods and services because these business centres have to run generating sets from morning to night everyday to ensure that they deliver effectively to their customers. Nigeria only uses four sources (crude oil, coal, natural gas and hydro) in



processed forms while two others (wood fuel and solar) used in their crude forms for heating, cooking and lighting. The demand for electricity in Nigeria outweighs the supply.

Nigeria has an installed generation capacity of 8,644 mega watts of which 6,905 mega watts is government owned. According to Yinka (2018), the World Bank says countries in Sub-Saharan Africa have annual outages from 50 hours to 4,600 hours. There

are 8,760 hours in a year, so that's more than half for some like Nigeria. We can then appreciate the heavy cost outages add on a per dollar basis for electricity. Imagine countries like Nigeria where back-up diesel generators are used to supplement or completely support daily life, the cost of electricity can be as much as three times higher than it would be if the grid were reliable. The table below shows electricity access and average outage in Sub-Saharan Africa.

**Electricity Access/Average outage/Grid capacity and Backup Generator in SS Africa**

Country	Electricity access %	Average outage hours per year	Grid capacity (GW)	Backup generator %
Angola	32	760	1.7	8
Cameroun	56.8	790	1.6	1
Cote D'Ivoire	61.9	230	1.8	6
DR Congo	13.5	830	2.6	46
Ethiopia	27.2	570	2.4	1
Ghana	78.3	790	2.8	12
Kenya	36	420	2.2	7
Mozambique	21.9	80	2.6	1
Niger	15	1,400	0.18	20
Nigeria	56.4	4,600	10.5	22
Senegal	61	130	0.96	1
South Africa	86	50	46	2.5
Tanzania	18.9	670	1.2	12
Zambia	27.9	180	2.3	3
Zimbabwe	32.3	280	2.1	5

Source: Quarz Africa 2018

According to Quarz Africa, the authors of the above estimated that Nigeria, with its high frequency of blackouts, has a "mean net cost of electricity" from diesel generators of around \$1.6 billion per year. While Senegal, a smaller country with more stable electricity has a mean net cost of above \$4 million per year. Moreover, countries' grid capacity is significantly supplemented by backup generators. Three-quarters of SSA firms experience power outages reportedly losing an average of 8.3 percent of the annual sales as a result. That notwithstanding, the health hazards associated with the use of generators can never be over-emphasized. There is increase of air emission pollutants including Co2, carbon monoxide, sulfur oxides, nitrogen oxides and fine particulate matter which significantly affect climate change and human health.

Household electrification rate in Sub-Saharan Africa is the lowest in the world, around 42% in 2016. Total installed capacity of electricity in the region was 96 giga watts in 2015, compared with 325 GW in India and 1,519 GW in China, according to the US Energy Information Administration in Yinka (2018). South Africa accounts for nearly half of the region's generation capacity Nigeria, which has a population four times the size of South Africa's, has only about a quarter of

the installed generation capacity of South Africa. There is also a big gap between electricity access in urban households (71%) and rural households amounting to 22%.

By implication, the level of actual electricity consumption in Africa and Nigeria in particular is low. Between 2010 and 2014, average annual consumption per capita in sub-saharan Africa was equivalent to just 4% of consumption per capita in the United States (Yinka, 2018). <https://qz.com/africa/1271252/world-bank-recommendations-on-electricity-in-sub-saharan-africa/>

In terms of access to clean drinking water, 68.5% have improved means of access while 31.5% still struggle to get clean water. Similarly, when examining the access of sanitation facilities, only 29% of the entire population of Nigeria has improved sanitation access as compared to the 71% that are still struggling. <https://worldpopulationreview.com/countries/Nigeria-population/>

Information can also flow effectively to allow easy communication for better growth of the business. In a situation where there is lack of service or a community or place is not



connected to the communication network, it will definitely affect productivity. Imagine the era when there was no phone and people have to travel miles to deliver information or that there is no network service in ones phone, it means that that person will be in total black-out. Business will be slow and sales decrease. Relatively, information flow has enhanced communication and business today that one can stay in one location and with a simple press or touch of a button, business transaction will take place.

**Macroeconomic Environment:** Any country with high interest and inflation rate may not boast of stable economy that can promote competitiveness because of the burden of interest rate burden that may lead to economic deficit. The question is: what form of growth can be achieved with an interest rate of 14 percent and inflation rate of 11.40 percent? Your guess is as good as mine because it will be difficult for the economy to be stable.

**Health and Primary Education:** Any country that invests in health and education has prepared for an effective and efficient economy that is sustained by productivity healthy for competition. People give in their best when they are physically and mentally stable. A sick person cannot function effectively as such worker will always be absenting himself/herself from work. According to World Population Review (2019), the life expectancy in Nigeria is, unfortunately, the lowest in all of West Arica. The average life expectancy is around 54.5 years of age according to WHO data, with men living an average of 53.7 years and women living an average of 55.4 years. This very low number can be attributed to the fact that the country has a lot of health issues. The AIDS (Acquired Immune Deficiency Syndrome) epidemic is a key player in low life expectancy. Nigeria has also fallen victim to a high child and maternal rate and the widespread growth of the polio virus. In fact, one out of every five children that are born in Nigeria will die before they reach the age of five due to the many health risks in Nigeria.

While pregnancy is obviously not a disease, a lot of expectant mothers in Nigeria die from pregnancy complications every year. The woman's chances of death during pregnancy or child birth are 1 in 13. To worsen the situation, many people in Nigeria do not seek professional medical attention as they feel that "healers" will help them live longer; not knowing that professional doctors will give them a much longer life.

Moreover, a country without technical know-how, correct, appropriate and adequate education cannot compete effectively in the global market. Good health and basic education is germane for an efficient and effective economic growth. A scenario where doctors are incessantly on strike because of government's inability to keep to their own side of the bargain scuttles the progress of effectiveness and efficiency. This in effect affect the health sector as doctors and nurses lack the fundamental knowledge to work which explains why our leaders

run to overseas to get treated leaving the poor masses to the mercy of the half baked graduates called doctors and nurses. Invariably any country without adequate health and education system lacks the strength to compete in the global market because as the saying goes "a healthy nation is a wealthy nation". What about on-the-job training to improve workers efficiency? Refresher training is key to economic development and growth since the average number of years spent in school in Nigeria is approximately nine (9) years with a national literacy rate of 59.6%.

**High Education and Training:** The Nigerian tertiary institutions are poor funded leading to lack of educational infrastructure. UNESCO recommended 26 percent of nation's total budget, yet this has not crossed 10 percent since 1991. Lecturers are always on strike due to government's insincerity and lack of goodwill draws back the economic growth of the country because graduates pass out of school without adequate knowledge of the discipline they studied due to truncation in the programme precipitated by strike leading to graduates with theory that does not match with practice. For any country to experience a high level of technology, theory must match with practice.

**Goods Market Efficiency:** Market efficiency is driven by healthy market competition and business productivity by making sure that efficient firms produce the goods that are demanded progress. When a country produces what it does not eat and eat what it does not produce, it has settled for subservient and depended position because it cannot satisfy the demands of her customer/consumer whose taste cannot be met. But the reverse is the case when a country is able to produce those goods and services as demanded by the consumers with the high-tech associated with it as high taste leads to innovation because the firms continue to strive to satisfy the consumers as well as try to compete with the global market. By implication, the goods and services offered or supplied in such a country, is customer-oriented that encourages innovation and improvement.

**Labour Market Efficiency:** Efficient labour market demands that market forces are allowed and as such total flexibility is required to ensure that workers have the freedom of labour mobility as well as gender empowerment. In addition, to the freedom of enjoying proper incentives which will motivate the workers to give in their best at a very minimal cost so as to maximise profit and yet allow creativity innovation and fulfilment. More importantly, meritocracy should not be slaughtered at the altar of mediocrity. Round pegs should be allowed to be in round holes and vice versa. Political or social interference should not disrupt the labour market rather market forces should take the lead.

**Financial Market Development:** Every country has investors, entrepreneurs and multinational companies who engage in one business or the other. Therefore, resources generated and saved



by these, should be re-invested into the economic system of the polity rather than the situation where resources are appropriated and expropriated leading to under-development of the host financial market. Resources saved should be allowed to circulate within the country in such a way that the banking sector having enough reserves, can grant loan and credit facilities to growing entrepreneurs with a clear, transparent and fair distribution. The banking system should be conducted in such a way that the customers will have trust and confidence on them to the extent that the investors can really feel protected. By implication therefore, there should be clear policies, rules and regulations guiding the financial system to the level that customers are a way of interests attached to credit facilities to avoid over charge and undue advantage over the customer and investor.

**Technological Readiness:** This refers to the preparedness of a nation to adopt existing technologies to promote the productivity of its industries. Is the technology adaptive? Does the country have an indigenous technology to be able to compete in the global market? If it is foreign direct investment, has the technology been transferred? An adopted technology without subsequent transfer poses problem as the maintenance of such technology becomes difficult retarding development. Every technology needs consequent technical know-how and if it is lacking, the progress will be thwarted.

**Market Size:** A progressive business is that which can dispose off its goods and produce more. A good turnover opens the windows of development. When goods produced are not sold, the producer may not be able to produce more. Hitherto globalisation, countries restrict import and small countries suffer as they could not sell off their goods easily. But now with trade liberalisation, countries can now export their goods to other countries freely though young domestic industries suffer as their goods have to compete with much more sophisticated goods. Sometimes people abandon these locally made goods which are looked down upon as substandard. However, a country with high-tech can effectively benefit from this trend because they have ready market to supply their goods and services.

**Business Sophistication:** This can be seen as the quality of a country's overall business networks and the quality of individual firms' operations and strategies. Business networks are crucial for efficiency in the business. Quantity and quality have to be assured as well as network of buyers.

**Innovation:** The injection of new ideas, skills and methods are germane for efficient and progressive economies. Industries must improve and be open to innovation and progress. An improved method in the process of production will indeed enhanced quality and productivity.

All these pillars of competitiveness are all interrelated and support each other. In fact, any weakness in one affects the others. The categories can also be divided into different stages thus:

- Factor-driven
- Efficiency-driven
- Innovation-driven

Nigeria's economy has not transited from factor-driven stage to efficiency-driven. It is still at the level of transition which explains why it is difficult for the country to effectively compete in the global economy.

## CONCLUSION/RECOMMENDATION

This paper examined democracy and development trying to locate the missing link in Nigeria's situation. Using pillars of competitiveness as yardstick, the paper observed that Nigeria's economy is still at the factor-driven stage which is yet a transitory level, in which case, the country has remained weak in the global economy. As a result of this, Nigeria needs to step up by improving on infrastructural development that can pave way for efficiency and innovation so as to enable the country compete effectively in the global economy. No country develops without giving room for a favourable playing ground for the actors and stakeholders in the polity.

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# FEATURES OF THE "EMOTIONAL BURNOUT" SYNDROME IN TEACHERS

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## ABSTRACT

*The article deals with the problem of the formation of the syndrome of emotional burn-out of teachers. The process of gradual loss of energy (emotional, physical, cognitive) manifests itself in symptoms of emotional exhaustion, physical fatigue, personal detachment of teachers, and a decrease in job satisfaction. The study of the syndrome of emotional burnout of teachers will make it possible to determine guidelines in the development of preventive and corrective measures for this condition.*

**KEY WORDS** : burn-out syndrome, emotional exhaustion, stress, teachers.

Today, along with professional competence, which includes the personal and professional development of teachers, their professional level, there is also a need for active creativity, constant study of the experience of colleagues, its implementation in teaching practice, without losing their own level of creativity, we need pedagogues-innovators who are ready to to innovative activity. The studies of N. V. Kuzmina, A. K. Markova, Yu. V. Vardanyan , A. A. Vorotnikova, E. V. Grigoryeva, G.S. Smirnova, Z. A. Yagudina , T. V. Zamorskaya, N. A. Zimina and others [1].

All the new requirements for teachers require constant work on oneself, professional self-improvement, advanced training, and full mobilization of internal resources. The intensity of professional activity is manifested in a decrease in the stability of psychophysical functions, a state of emotional instability, tension, despite the fact that pedagogical work has always been highly saturated with stressful situations.

Decreased working capacity, emotional exhaustion, deterioration in performance, the appearance of uncharacteristic errors, decreased memory, attention, loss of self-control and self-control are the result of prolonged exposure to stressful factors of pedagogical work, leading to conflicts in relationships with students, parents, colleagues, contributing to the emergence and consolidation of personal negative traits that destroy mental health. As a result, teachers

develop persistent dissatisfaction with their own work, emotional and physical exhaustion. All this characterizes the syndrome of emotional burnout. Despite the development of this problem in the psychological and pedagogical literature (M. V. Agapova, V. V. Boiko, M. V. Borisova, N. E. Vodopyanova, M. A. Vorobieva, K. A. Dubinitskaya, V. E. Orel, T. V. Formanyuk et al . [2].), the issue of prevention and correction of this condition remains relevant.

Emotional burnout syndrome, according to M.A. Vorobieva, occurs in situations of intensity of professional communication, represents a symptom complex of characteristics of the teacher's psyche, reflecting interaction with the external environment under the influence of objective and subjective factors [ 3].

"Emotional burnout" is considered as a long-term stress reaction or syndrome that occurs as a result of long-term occupational stress of medium intensity. In this regard, the syndrome of "mental burnout" is designated by researchers as the concept of "professional burnout", which allows us to consider this phenomenon in the aspect of personal deformation of a professional under the influence of a long professional work experience in the same specialty. For example, D.G. Saibulaeva [4] gives in her works the dynamics of the positive and negative qualities of teachers depending on the length of service (in percent) (Table 1)

**Table 1**

Qualities	1st year	3-5 year	6-10 year
Sociability	53	thirty	28
Tact	53	39	25
empathy	64	36	22
Emotional stability	18	7	10
benevolence	56	thirty	26
Self-mastery	27	39	68
Desire to help the student	44	34	38
Feeling worthless	13	28	25
Anxiety	15	37	35



Irritability	eleven	18	38
Decreased interest in work	8	13	36
Feeling emotionally exhausted	35	37	67
Authoritarianism	9	2	thirty

Emotional burnout can be expressed in callousness to people, cruelty, unwillingness to take on someone else's pain, lack of mercy and humanity, low communication skills, rudeness, anger in relationships with people; in work, this can manifest itself in the appearance of a sense of the futility of the activities performed, in the feeling of a lack of prospects for further professional growth, apathy, unwillingness to achieve better results. This negatively affects the performance of professional activities and in relations with employees and students. Therefore, the "emotional burnout" of the teacher is considered as a form of professional deformation of the personality. Like any deformation, the "emotional burnout" of a teacher leads to negative consequences, so it is always necessary to look for effective ways to prevent and overcome it.

The relevance of the problem of the psychological health of teachers is obvious, since they experience enormous emotional, intellectual, physical stress and, in addition, are forced to work at a computer for a long time, which leads to overwork, sleep disturbances and the activity of the cardiovascular system - symptoms indicating the presence of an emotional syndrome. burnout.

M. Grabe in the book "Burnout syndrome is a disease of our time. Why do people burn out, and what can be done against it," writes that, according to statistics, teachers suffering from burnout syndrome make up 30% of the total number of burnt out other professions. Burnout, according to M. Grabe, occurs when a person gives away too much energy for a long time and practically does not replenish it [5].

Today, there are the following definitions of burnout syndrome:

- long-term stress reaction, or a syndrome resulting from prolonged occupational stress;
- the process of gradual loss of emotional, cognitive and physical energy, manifested in symptoms of emotional, mental exhaustion, physical fatigue, personal detachment and decreased job satisfaction.

Emotional burnout is a psychological defense mechanism developed by a person in the form of a complete or partial exclusion of emotions in response to selected psycho-traumatic effects [6, p. 16].

Emotional burnout is an acquired stereotype of emotional behavior that negatively affects the performance of professional duties and worsens relationships with others. The most susceptible to "burnout" are those who react to stress aggressively, competitively, unrestrainedly, "workaholics" who have decided to devote themselves to achieving only work goals, as well as sympathetic, humane, people-oriented and at the same time unstable introverts.

There are 12 signs of emotional "burnout": exhaustion, fatigue; psychosomatic complications; insomnia; negative attitudes towards customers; negative attitudes towards their work; neglect of the performance of their duties; an increase in the volume of psychostimulating substances (tobacco, coffee, alcohol, drugs); decreased appetite or

overeating; negative self-esteem; increased aggressiveness; increased passivity; feeling of guilt [6, p. 18].

The most common causes of professional burnout syndrome are: monotony of work; investing in the work of large personal resources with insufficient recognition and positive evaluation; strict regulation of work time, especially with unrealistic deadlines; tension and conflicts in the professional environment, insufficient support from colleagues and their excessive criticism; lack of conditions for self-expression of the individual at work; work without the possibility of further professional development; unresolved personal conflicts [6, p. 31–32]. Thus, emotional burnout as a condition is the result of a relatively long-term effect of certain factors of the working environment in combination with the individual and personal characteristics of the teacher, and has its own characteristics.

The main component of the burnout syndrome among teachers is emotional exhaustion, which is understood as a feeling of emotional emptiness and fatigue caused by their own work. This condition is manifested in a reduced emotional background, indifference and emotional oversaturation, in aggressive reactions, outbursts of anger, depression, impulsive emotional behavior.

Employees who do not have serious prerequisites for the formation of burnout syndrome make up 32.2% of the total number of subjects among teachers. This category is characterized by individual symptoms of professional burnout. At the initial stage, the employee can cope with the problems that have arisen. To do this, he needs to learn to recognize the symptoms of psychological stress and manage it, to master the techniques of self-regulation. Already the first results made us think seriously, since only one third of the employees can be called psychologically healthy [7].

Employees whose burnout is in the formation stage amounted to 29%. These employees are characterized by a decrease in the level of their own participation in relation to colleagues, children, which is expressed in the loss of a positive perception of colleagues, the transition from assistance to control and supervision, the dominance of stereotypes in behavior towards employees, and the manifestation of an inhumane approach to people. Also, in relation to others, there is a lack of empathy, indifference, cynical assessments; in relation to professional activity, there is an unwillingness to fulfill one's duties, the dominance of the material aspect with simultaneous dissatisfaction with work [7].

38.8% of teachers have persistent and even irreversible symptoms of emotional burnout. When talking with this group of subjects, one could notice symptoms of depression, feelings of guilt, low self-esteem, apathy, blaming others, decreased concentration, rigidity of thinking, changes in the motivational sphere. Some employees noted a decrease in immunity, high blood pressure, headaches, disappointment in life and profession, a sense of helplessness and meaninglessness of life [7].





Emotional protection in the form of "burnout" becomes an integral attribute of the personality. This may be due to the fact that the object of pedagogical activity is children and adolescents, whose emotional reactions, as a rule, are more pronounced than in adults.

Emotionally rich communication with students gradually leads to the depletion of energy resources and the nervous system of the teacher, the impossibility of a full-fledged emotional and intellectual return, the loss of interest in the personalities of students, the exclusion of emotions from the sphere of professional activity.

Emotional and moral disorientation is the inability to control emotions within the framework of moral and ethical standards. The employee does not show the proper emotional attitude towards the subject, while he has a need for self-justification. His judgments may sound like this: "you can't empathize with such people," "he doesn't deserve a good attitude," "why should I worry about everyone." Such thoughts and assessments indicate that emotions do not awaken or do not sufficiently stimulate moral feelings. Other researchers also point to the presence of the same symptoms [8].

The main preventive measure of this condition is the recognition of any person's right to free manifestation of his individuality. A person needs to be more flexible in the assessments of other people, not to try to remake communication partners, to fit them to himself. As a prevention of depersonalization, it is recommended to develop personal endurance, which is defined as the ability of a person to be highly active every day, exercise control over life situations and respond flexibly to changes. To prevent "caged", it is recommended to use reflection skills, compare the desired and the actual, evaluate your own goals and plans from the point of view of the possibility of implementation, develop interest in work and diversify it: create new projects, exchange experience with colleagues.

In the psychological prevention of "burnout", two main areas can be distinguished: education and training aimed at developing personal resources to counteract "burnout". The content of trainings can be determined by the following specific tasks:

–The formation of a positive attitude towards oneself, towards pupils, towards life;

–Increasing motivation for professional activities;

–Increasing professional and psychological competence;

–Learning how to self-regulate.

A necessary and basic part of the prevention of the occurrence of the syndrome is the personal psychological training of specialists.

Here we mean not only and not so much theoretical training in the basics of psychology, but practical training aimed at developing the stress resistance of a professional. To increase stress resistance, it is necessary to develop the following resources:

–personal resources: psychological competence, level of psychological literacy and culture; active motivation to overcome, attitude to stress as an opportunity to gain personal experience and the possibility of personal growth; the strength of the self-concept, self-esteem, adequate and high

self-esteem, self-importance, self-sufficiency; active life attitude: the more active the attitude to life, the greater the psychological stability in stressful situations; positive and rational thinking.

– information and instrumental resources: the ability to control the situation (adequate assessment of the degree of its impact); the ability to adapt, interactive techniques for changing oneself and the environment, information and activity activity to transform the situation of interaction between the individual and the stressful situation; the use of various methods or ways to achieve the desired goals; the ability to comprehend and cognitively structure the situation [6, p. 8–9].

So, those teachers who work with high dedication, responsibility, orientation towards the innovation process are more susceptible to emotional burnout. The syndrome of emotional burnout of teachers is the result of an unfavorable resolution of stress in the workplace, while it should be noted that professional specificity affects only a certain degree of stressfulness of individual factors.

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# LANGUAGE LEARNING STRATEGIES AND SOCIAL MEDIA USE AS DETERMINANTS OF ENGLISH LANGUAGE SKILLS SELF-EFFICACY

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## ABSTRACT

*Self-efficacy in English language is characterized as the ability to communicate in English through the mastery of reading, writing, speaking, and listening skills. It is a factor that appears to influence student achievement; however, it is likely that students do not have many opportunities to use English in their daily lives and have a limited understanding of the language. This study aimed to ascertain whether English Language Strategies and Social Media Use could significantly determine Self-efficacy in English language skills among Senior High School students in Davao City. Utilizing quantitative descriptive-correlational research, the study involved 250 senior high school students in Davao City, Philippines from five schools that offer Grade 11 and Grade 12 curriculum in school year 2021-2022. The results revealed that the overall senior high school students' Language Learning Strategies, Social Media Use and Self-efficacy in English language skills were high which means that the variables under study were evident. Moreover, it was found that Language Learning Strategies and Social Media Use were significant determinants of Self-efficacy in English language skills.*

**KEYWORDS:** English language self-efficacy; language learning strategies; social media use

## 1. BACKGROUND OF THE STUDY

The importance of the English language in today's world is now widely acknowledged. English has become one of the most frequently used worldwide, and it is largely recognized as the principal international language for all academic and personal purposes (Alwiyah, 2018). However, according to Wang and Rajprasad (2015), when considering the variables that contribute to students' inability to learn English, it is likely that they do not have many opportunities to use English in their daily lives and have a limited understanding of the language. Students' self-beliefs in their language abilities can have a negative or positive impact on their language accomplishment, depending on the intensity of their efficacy beliefs (Rahimi & Abedini, 2009). The majority of students feel that their self-efficacy in English learning will influence their motivation, ambitions, and efforts in English learning, which will eventually influence their academic achievement (Kitikanan & Sasimonton, 2017).

Learners' self-efficacy in English language is characterized as the ability to communicate through the mastery of reading, writing, speaking, and listening skills (Habibi et al., 2016). Given the importance of beliefs and thoughts, more research on learner's self-efficacy and how to cultivate it in educational environments like schools and universities is required (Tilfarlioglu & Ciftci, 2011). If student's self-efficacy in English learning is improved, his language performance will also be improved. This is very important in the English language classrooms to reinforce self-efficacy most especially when students are passive (Ahamad

& Abdullah, 2019). In one study conducted in Indonesia that aims to find out the level of 11th Grade senior high school students' self-efficacy in English, data revealed that 30.9% are in low level of efficacy, 45.85% are in medium level and only 23.53% are in high level. It can be observed that most students are at moderate self-efficacy levels, followed by low self-efficacy, and the lowest percentage is at the level of high self-efficacy. This indicated that most students feel capable, but are not entirely sure if they can do the task in learning English and achieve the goals accordingly (Yusuf, 2019).

According to Ballo-allo (2010) the idea of self-efficacy is one of the many personal elements that appears to impact student accomplishment. Although various areas of self-efficacy have been investigated, such as mathematics self-efficacy, writing self-efficacy, and self-efficacy for self-regulated learning, few research have focused on students' linguistic self-efficacy, specifically in English, more significantly in a Philippine setting. It is critical to investigate such an idea as it applies to the country, since the Philippines was known to be the only English-speaking country in Southeast Asia. In North Luzon, the study of Racca and Lasaten (2016) implies that the students have typical skills in grammar, vocabulary and reading comprehension. Thus, more reading and writing exercises must be introduced to the students in order to improve their English language skills. Moreover, in Nueva Ecija, there had been a truth in the concept that a person's perception of their abilities has a significant impact on their choice of task, the effort they put into completing a task, and their persistence until mastery of



the task; consequently, there is reason to believe that students are more likely to engage in communication activities in which they assessed themselves as less confident of performance (Torres & Alieto, 2019).

Realino (2018), a researcher in Davao City, explored the Kalagan learner's academic challenges that aims to describe the textures of their experiences and construct an overall description of the meaning and essence of their experiences. Among the six themes generated from the data, the participants recognized the practice of using English language in written and oral communication as important. In a similar vein, English language instructors of the University of Mindanao Tagum Campus expressed dissatisfaction with their students' ability to communicate in English. Students frequently make mistakes for not being able to follow written instructions, comprehend announcements and guidelines (Pascual, 2017).

With the above-said issues, language scholars explored variables that have possible relationship to English Language Skills Self-efficacy. One aspect that may influence learners' self-efficacy views in a foreign language learning situation is Language Learning Strategies. Anam and Stracke (2016) investigated the significant differences in the use of Cognitive, Socio-affective and Metacognitive strategies between students with different English self-efficacy levels: low ( $n = 194$ ), moderate ( $n = 156$ ), and high ( $n = 172$ ). The students who had different English self-efficacy levels showed significant differences in their cognitive ( $X^2(2) = 126.195, p = 0.000$ ), socio-affective ( $X^2(2) = 50.425, p = 0.000$ ), and metacognitive ( $X^2(2) = 89.781, p = 0.000$ ) strategy use. The significant differences reflected a linear trend: that is, students who perceived themselves as more capable of performing English tasks were likely to use cognitive, socio-affective, and metacognitive strategies more often than those who did not.

Meanwhile, the study of Hu, Gu and Zhang (2017) revealed both informational and socializing usage of social media increase individual's self-efficacy. Results revealed that informational Social Media Use (SMU) ( $\beta = 0.307, p < 0.001$ ) was significantly related to the development of general self-efficacy. Furthermore, the result shows that socializing SMU was also significantly related to general self-efficacy ( $\beta = 0.236, p < 0.001$ ). Thus, it was suggested that practitioners and administrators should highlight the important roles of social media usage in a culturally diverse environment because social media usage could increase expatriate's self-efficacy and cultural intelligence.

The above-mentioned studies are separate studies of the three variables: Language Learning Strategies, Social Media Use, and Self-efficacy in English Language skills. Correlating these variables gave inspiration to the researcher since the three variables were not widely explored among Senior High School students in which they are expected to develop high self-efficacy in English. The present study deems the researcher to probe if Language Learning Strategies and Social Media Use could significantly determine Self-efficacy in English Language Skills. The findings of this study may serve as a groundwork in addressing the low achievement of the students and may help in bringing awareness to the Language teachers of the importance of the said variables in the teaching and learning processes.

## 2. STATEMENT OF THE PROBLEM

The study aimed to ascertain whether English Language Strategies and Social Media Use could significantly determine Self-efficacy in English Language Skills among Senior High School students in Davao City. Specifically, the study sought to answer the following questions:

1. What is the level of Language Learning Strategies of the Senior High School students in terms of:
  - 1.1 Memory Strategy (MS);
  - 1.2 Cognitive Strategy (CS);
  - 1.3 Compensation Strategy (CPS);
  - 1.4 Metacognitive Strategy (MCS);
  - 1.5 Affective Strategy (AS); and
  - 1.6 Social Strategy (SS)?
2. What is the status of Social Media Use of Senior High School students in terms of:
  - 2.1 Interactivity with peers (INT-P);
  - 2.2 Interactivity with teachers (INT-T);
  - 2.3 Engagement (ENG);
  - 2.4 Perceived ease of use (PEU); and
  - 2.5 Perceived usefulness (PU)?
3. What is the level of Self-Efficacy in English Language Skill of the Senior High School students in terms of:
  - 3.1 Reading Skill;
  - 3.2 Writing Skill;
  - 3.3 Speaking Skill; and
  - 3.4 Listening Skill?
4. Is there a significant relationship between:
  - 4.1 Language Learning Strategies and Self-efficacy in English Language Skills of the Senior High School students?
  - 4.2 Social Media Use and Self-efficacy in English Language Skills of the Senior High School students?
5. Do Language Learning Strategies and Social Media Use significantly determine the Self-efficacy in English Language Skills of the Senior High School students?

## 3. RESEARCH INSTRUMENTS

This study utilized an adapted research instrument. For the independent variables, these were the Strategy Inventory for Language Learning (SILL)-ELL Student form and Survey on Using Social Media for Collaborative Learning; while for the dependent variable, the survey on English Language Skills Self-Efficacy Scale was used. These survey questionnaires were validated by a panel of experts for dependability before implementation.

In measuring the Language learning strategies, an adapted tool developed by Ardasheva and Tretter (2013) was used to measure their LLS level along with its seven constructs namely: Memory strategy (MS), Cognitive strategy (CS), Compensation strategy (CPS), Metacognitive strategy (MCS), Affective strategy (AS) and Social strategy (SS). Such instrument contains 28 items which consists of 7 MS items, 5 CS items, 5 CPS items, 4 MCS items, 3 AS items and 4 SS items. The initial reliability test result showed that the measure

was high with a Cronbach's alpha value of 0.90. The respondents were asked to rate each item based on a five-level Likert scale from strongly disagree to strongly agree. For

interpretation, the researcher used the range of means and descriptions as presented below.

<i>Range of Means</i>	<i>Description</i>	<i>Interpretation</i>
4.20 – 5.00	Very High	Language Learning Strategies is very evidently used
3.40 – 4.19	High	Language Learning Strategies is evidently used
2.60 – 3.39	Moderate	Language Learning Strategies is fairly evidently used
1.80 – 2.59	Low	Language Learning Strategies is less evidently used
1.00 – 1.79	Very Low	Language Learning Strategies is not evidently used

Likewise, in measuring the learners' Social Media Use, the adapted Survey on Using Social Media for Collaborative Learning with 19 items from the study of AL-Rahmi and Othman (2013) was used along with its five indicators namely: Interactivity with peers (INT-P) (4 items), Interactivity with teachers (INT-T) (4 items), Engagement (ENG) (3 items), Perceived Ease of Use (PEU) (4 items) and

Perceived Usefulness (PU) (7 items). The instrument had a Cronbach's alpha value of 0.79, suggesting that the measure was highly average reliable. The respondents were asked to rate their capacity beliefs based on a five-level Likert scale ranging from strongly disagree to strongly agree. For interpretation, the researcher used the range of means and descriptions as presented below.

<i>Range of Means</i>	<i>Description</i>	<i>Interpretation</i>
4.20 – 5.00	Very High	Social media use is very evident
3.40 – 4.19	High	Social media use is evident
2.60 – 3.39	Moderate	Social media use is fairly evident
1.80 – 2.59	Low	Social media use is less evident
1.00 – 1.79	Very Low	Social media use is not evident

Meanwhile, English Language Skills Self-efficacy, the dependent variable of this study, was measured using the English Language Skills Self-Efficacy Scale developed by Sağlam and Ali Arslan (2018). The 22-item survey was made up of 4 indicators namely: Reading skill (5 items), Writing skill (4 items), Speaking skill (7 items), and Listening skill (6

items. The instrument's reliability was measured which showed a highly reliable result with Cronbach's alpha value of 0.90. The learners were asked to personally assess their English Language Skills Self-efficacy based on a five-level Likert scale ranging from Never to Always.

For interpretation, the researcher used the range of means and descriptions as presented below.

<i>Range of Means</i>	<i>Description</i>	<i>Interpretation</i>
4.20 – 5.00	Very High	The ELS Self-efficacy is very satisfactory
3.40 – 4.19	High	The ELS Self-efficacy is satisfactory
2.60 – 3.39	Moderate	The ELS Self-efficacy is fairly satisfactory
1.80 – 2.59	Low	The ELS Self-efficacy is less satisfactory
1.00 – 1.79	Very Low	The ELS Self-efficacy is unsatisfactory

To ensure the validity, the said questionnaires were examined by the panel of experts who had deep knowledge about the method and the subject of the study.

#### 4. STATISTICAL TOOLS

The following statistical tools were used in treating the gathered data:

**Mean.** This was used to determine the level of Language learning strategies, Social media use, and Self-

efficacy in English Language Skill. This answered the research questions 1, 2, and 3.

**Standard Deviation.** This was used to indicate the variability of scores or how far the individual responses are from the mean. This was used along with the mean to answer research questions 1, 2, and 3.

**Pearson Product Moment Correlation.** This was used to determine if there were significant relationships between the Language learning strategies and Self-efficacy in



English Language Skill, and between the Social media use and Self-efficacy in English Language Skill. This answered the research question 4.

**Regression.** This was used to ascertain whether Language Learning strategies and Social Media Use could significantly determine students' Self-efficacy in English Language Skill. It answered the research question 5.

## 5. FINDINGS

Based on the results, the summary of findings was drawn below:

The level of Language Learning Strategies of the Senior High School has generated an overall mean of 3.85 which was described as high. Among the indicators, Metacognitive Strategy was rated as the highest with a mean score of 4.28, while Affective Strategy was rated as the lowest with a mean score of 3.44.

The status of Social Media Use of Senior High School students had an overall mean of 3.91 which was described as high. Among the five indicators, Perceived Usefulness was rated as the highest with a mean score of 4.05, while Engagement was rated as the lowest with a mean score of 4.19.

The level of Self-efficacy in English language skills of the Senior High School students has garnered an overall mean of 3.81 which was described as high. Among the indicators, Reading Skills was rated as the highest with a mean score of 4.08, while Speaking Skill was rated as the lowest with a mean score of 3.44.

The test of significant correlation showed that both independent variables are significantly correlated with Self-efficacy in English language skills ( $p < .01$ ). Language learning strategies and English language skill self-efficacy was significantly correlated at .70 ( $p < .01$ ); while social media use and Self-efficacy in English language skills was significantly correlated at .64 ( $p < .01$ ).

The result of the regression analysis showed that the two independent variables—language learning strategies and social media use could significantly determine the Self-efficacy in English language skills of the senior high school students in their singular capacity ( $p < .05$ ). Additionally, the beta coefficient of .49 signifies that a unit improvement in language learning strategy could lead to a .49 improvement in the students' Self-efficacy in English language skills. Likewise, the beta coefficient of .30 connotes that a unit improvement in the use of social media results in a .30 improvement in the students' Self-efficacy in English language skills.

## 6. RECOMMENDATIONS

Based on the foregoing findings and conclusions, the following recommendations are offered:

Since Affective strategy has the lowest mean score compared to the five indicators of LLS, it is recommended that teachers in the senior high schools in Davao City may come up with activities where students can play an active role in developing and exploiting affective strategies such as meditation that could create a positive atmosphere and giving a reward to reduce anxiety. Students may also practice writing

a language learning diary, and discussing feelings with their peers and teachers to lessen the burden in language learning.

From among five indicators of Social Media Use, Engagement obtained the lowest mean. With this, it is recommended that teachers from senior high schools of Davao City may intensify the use of social media for homework activities. They may also promote the use of social media for educational purposes.

The level of English Language Skill Self-Efficacy of the Senior High School students is high which concluded that senior high school students are knowledgeable or conversant in all four macro skills in English language. From among those skills, Self-efficacy in speaking skill got the lowest mean score. With this, it is recommended to immerse the senior high school students with communicative language teaching and collaborative learning. These approaches are based on real-life situations that require communication wherein students will have the opportunity of communicating with each other in the target language. Moreover, teachers may create a classroom environment where students have realistic communication, authentic activities, and meaningful tasks that promote oral language like role play, interview and the like.

The language learning strategies and social media use are significantly correlating Self-efficacy in English language skills. To maintain the correlation, all Senior High Schools of Davao City may provide an enhanced programs that devolve in language learning strategy and skills with the augmentation of social media. Future researchers may do a similar study in different cities or at different grade levels with a larger sample size.

Since there are still 47 percent attributed to other factors that could significantly influence the English language skill self-efficacy that is not covered in this study, it is recommended that further research may be conducted using the variables of this study but considering other possible factors such as the students' demographic profiles, environmental factor, emotional factor and many more.

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# THE PRINCIPAL METHODOLOGICAL ASPECTS OF FORMATION OF DISCOURSE COMPETENCE OF STUDENTS IN THE FIELD OF INTERNATIONAL RELATIONS

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## ABSTRACT

*This article highlights the importance of developing discourse competence in students, particularly in the field of international relations. The article discusses the challenges that may arise during the process of developing discourse competence, such as the diversity of academic backgrounds and language proficiency levels among students, the lack of motivation among some students to engage actively in the learning process, and the complexity and diversity of international relations topics that may make it challenging for students to comprehend and communicate effectively. The article suggests several solutions to these challenges, such as providing individualized support to students, using technology and multimedia resources, incorporating more interactive and collaborative learning activities, and creating opportunities for practical application of language and discourse skills outside the classroom setting. Overall, the article emphasizes the importance of addressing these challenges and providing effective support to students to promote the development of discourse competence in higher education.*

**KEY TERMS:** *Discourse, competence, proficiency, communication, immersion, evaluate, analyse, synthesize*

## INTRODUCTION

Discourse competence is a key component of communication skills, especially in the field of international relations. It refers to the ability to use language effectively in a variety of contexts, including academic, professional, and social settings. In order to develop discourse competence, students need to have a strong foundation in language skills, critical thinking, and cultural awareness. This article explores some of the principal methodological aspects of formation of discourse competence of students in the field of international relations.

## METHODOLOGICAL ASPECTS OF FORMATION OF DISCOURSE COMPETENCE

### *Language proficiency*

One of the most important methodological aspects of formation of discourse competence is language proficiency, as effective communication in international relations often requires fluency in more than one language. According to Phipps and Guilherme (2004), language proficiency is a crucial component of intercultural communication, as it enables individuals to understand and communicate effectively with people from different linguistic and cultural backgrounds. Proficiency in a foreign language is essential for students to understand and engage with other cultures and nations.

Students must have a good command of the language they are studying in order to be able to use it effectively in different contexts. In their study, Myles, Cheng, and Hou (2018) found that incorporating language learning strategies into international relations courses can significantly improve students' language proficiency. This requires a strong focus on

grammar, vocabulary, and syntax, as well as an understanding of the cultural nuances of the language, such as how to address individuals in different social settings or how to use appropriate language in professional settings. For example, in some cultures, using a first name to address someone may be considered impolite or disrespectful, while in other cultures it may be perfectly acceptable. Similarly, using slang or informal language in a professional setting may be considered inappropriate in some cultures.

In the context of international relations, students may need to develop proficiency in languages that are commonly spoken in different regions of the world. For example, proficiency in Chinese or Russian may be necessary for those who want to work in areas related to trade or diplomacy with China or Russia. Similarly, proficiency in Arabic or Farsi may be important for those interested in working in the Middle East.

Language proficiency can be developed through various methods, including classroom instruction, self-study, and immersion in a native-speaking environment. Classroom instruction may involve traditional language instruction, such as grammar and vocabulary exercises, as well as more interactive methods, such as role-playing, simulations, and debates. Self-study methods can include reading books, watching movies, and listening to music in the target language, while immersion in a native-speaking environment can involve study abroad programs, language immersion programs, or living in a foreign country.

### *Critical thinking*

Another key aspect of formation of discourse competence in the field of international relations is critical thinking. Ennis



(2011) emphasizes the importance of developing students' critical thinking skills in the context of international relations, stating that "the ability to think critically is an essential skill for understanding and engaging with complex issues in the global arena". Critical thinking skills are necessary for effective communication and decision-making in international relations, where complex issues require careful consideration and analysis. Students must be able to analyze, evaluate and synthesize information in order to form opinions, make decisions and solve problems. This requires the ability to ask questions, identify assumptions, and consider different perspectives. Critical thinking can be developed through activities such as debates, discussions, and case studies.

In international relations, critical thinking requires an understanding of the historical, cultural, and political context of the issue at hand, as well as an ability to navigate and evaluate different sources of information. One way to develop critical thinking skills is through classroom instruction that incorporates activities such as debates, discussions, and case studies. These activities require students to analyze and evaluate information from different sources, consider different perspectives, and draw conclusions based on evidence. They also provide opportunities for students to practice effective communication skills, including the ability to articulate their ideas clearly and persuasively.

Another way to develop critical thinking skills is through exposure to different cultures and worldviews. Exposure to different cultures can help students understand and appreciate different perspectives on complex issues. This can be achieved through study abroad programs, cultural immersion programs, or exposure to different cultural events.

Finally, critical thinking skills can be developed through self-study and independent research. This requires a strong foundation in research methods, including the ability to identify credible sources of information, evaluate the reliability of those sources, and synthesize information from multiple sources.

### **Cultural awareness**

In addition to language proficiency and critical thinking, cultural awareness is also an important methodological aspect of formation of discourse competence. Students must be able to understand and appreciate the cultural differences that exist between different countries and regions. This requires an understanding of the history, customs, and values of different cultures. Cultural awareness can be developed through activities such as cultural immersion programs, travel, and exposure to different cultural events.

Cultural awareness is a critical aspect of formation of discourse competence, as effective communication in international relations requires an understanding of the cultural norms, values, and beliefs of different societies. It involves recognizing and respecting cultural differences, as well as being able to adapt communication styles and behaviors to different cultural contexts. In order to effectively engage in discourse with individuals from other cultures,

students must be aware of and sensitive to cultural differences. This requires an understanding of the different cultural values and beliefs that underpin the behavior of individuals from other cultures. For example, in some cultures, direct communication is valued, while in other cultures, indirect communication is preferred. Understanding these cultural differences can help students avoid misunderstandings and effectively communicate with individuals from other cultures.

In the context of international relations, cultural awareness is essential for students to be able to communicate effectively with individuals from different cultural backgrounds. According to Gudykunst and Kim (1997), cultural awareness is "the ability to recognize, understand, and appreciate the differences in values, beliefs, and customs of others". By developing cultural awareness, students can avoid misunderstandings and misinterpretations that can occur when communication styles clash.

One method for developing cultural awareness is through cross-cultural training, which involves educating students about the cultural norms and values of different societies. Cross-cultural training can involve classroom instruction, experiential learning, and intercultural dialogue (Henderson & Bevan, 2015). By engaging in cross-cultural training, students can develop a deeper understanding of the perspectives and beliefs of individuals from different cultures, and learn how to adapt their communication styles and behaviors to different cultural contexts.

In addition to cross-cultural training, exposure to diverse cultural experiences can also enhance cultural awareness. This can involve studying abroad, participating in international internships, or engaging in multicultural community service projects. By exposing themselves to different cultures and experiences, students can broaden their perspectives and develop a deeper understanding of the cultural nuances of communication in international relations.

Cultural awareness also involves an understanding of the historical, political, and economic factors that shape different cultures. For example, understanding the history of colonialism can provide insight into the cultural values and beliefs of post-colonial societies. Similarly, understanding the economic conditions of a particular region can provide insight into the cultural practices and customs of that region.

### **Use of technology**

The use of technology is also an important methodological aspect of formation of discourse competence in the field of international relations. Technology can provide students with opportunities to engage with authentic materials in the target language, communicate with native speakers, and collaborate with peers from different parts of the world. Students must be able to use technology effectively in order to communicate with others and access information. This requires a strong foundation in digital literacy skills, including the ability to use social media, online research tools, and communication platforms. The use of technology can be incorporated into





classroom instruction through activities such as online discussions and collaborative projects.

One example of technology that can be used to develop discourse competence is computer-assisted language learning (CALL). Li and Ranalli (2010) found that the use of computer-assisted language learning programs can lead to improved language proficiency and greater motivation to learn among students of foreign languages. CALL programs can provide students with access to interactive materials that allow them to practice their language skills in a variety of contexts. For example, students can use CALL programs to practice reading, writing, listening, and speaking in the target language. CALL programs can also provide students with instant feedback on their performance, allowing them to identify areas where they need to improve.

Another example of technology that can be used to develop discourse competence is videoconferencing. Kelm and Bónk (2002) found that videoconferencing can provide students with valuable opportunities to practice their language skills in a natural setting and to learn about the culture of the target language from native speakers. Videoconferencing allows students to communicate with native speakers of the target language in real time. This can provide students with valuable opportunities to practice their language skills in a natural setting and to learn about the culture of the target language from native speakers.

Online discussion forums are one more example of technology that can be used to develop discourse competence. These forums provide a platform for students to engage in dialogue with their peers and instructors about a wide range of topics related to international relations. Lee and Kim (2014) argue that the use of technology, such as online language learning platforms, can be an effective way to enhance language proficiency among students in the field of international relations. Through these discussions, students can learn how to express their opinions and ideas clearly and effectively, while also developing their critical thinking skills as they engage with diverse perspectives.

Social media platforms can also be used to develop discourse competence. Social media platforms such as Twitter, Facebook, and LinkedIn can be used to connect with individuals and organizations from different countries and cultures, enabling students to learn about different perspectives and experiences. In addition, social media can be used to share information and resources, and to engage in discussions about current events, global issues or other topics related to international relations. According to Kirschner and De Bruyckere (2017), technology can be a powerful tool for promoting critical thinking skills by providing students with access to diverse perspectives and enabling them to engage in dialogue and debate with others. Social media can also be used to share authentic materials, such as news articles or videos, that provide students with exposure to the target language and culture.

In addition to these examples, there are many other technologies that can be used to develop discourse

competence in the field of international relations, including online research databases, interactive simulations and games, and multimedia resources such as podcasts and videos.

In conclusion, the formation of discourse competence of students in the field of international relations requires a combination of language proficiency, critical thinking, cultural awareness, and the use of technology. These methodological aspects can be incorporated into classroom instruction and other learning activities to help students develop the skills they need to communicate effectively in different contexts. By focusing on these key areas, educators can help prepare students for success in their academic, professional, and social lives.

### **Challenges that arise in the process of developing discourse competence**

There can be several challenges that arise in the process of developing discourse competence of students in the field of international relations. One of the main challenges is the diversity of academic backgrounds and levels of language proficiency among students, which can create difficulties in understanding and participation in class discussions. Another challenge is the lack of motivation among some students to engage in the learning process actively. Additionally, the complexity and diversity of international relations topics may make it challenging for students to comprehend and communicate effectively. Finally, the lack of opportunities for practical application of language and discourse skills outside the classroom setting may limit the development of discourse competence. Overcoming these challenges requires a systematic approach that integrates various pedagogical techniques and technologies that can enhance students' motivation, engagement, and language skills.

### ***Diversity of academic backgrounds and levels of language proficiency***

The diversity of academic backgrounds and levels of language proficiency among students can pose several challenges in the process of formation of discourse competence. For example, some students may come from different academic backgrounds such as political science, history, or economics, which may affect their prior knowledge of international relations topics and concepts. Similarly, some students may have better language skills than others, which may make it difficult for them to express themselves effectively in academic discussions and debates.

Moreover, differences in cultural and social backgrounds may also lead to misunderstandings and miscommunications during class discussions. Students may have different perspectives and approaches to international relations topics based on their cultural and social backgrounds, which can lead to conflicting views and opinions. This can hinder the formation of discourse competence as students may not be able to effectively engage in constructive dialogue and exchange of ideas.

Therefore, it is important for instructors to address these differences and create a supportive learning environment that



promotes effective communication and understanding among students. This can involve providing additional language support for students with lower language proficiency, using a variety of teaching methods and materials to accommodate different academic backgrounds, and encouraging respect and tolerance for diverse perspectives and opinions.

#### **Lack of motivation**

This is a common problem in any learning process, and it can have various causes, such as a lack of interest in the subject matter, personal or academic problems, or a sense of disconnect between the learning environment and the real world. In the context of developing discourse competence in international relations, some students may not see the practical value of the skills they are learning or may feel that the topics covered are too abstract or detached from their everyday lives.

To address this issue, instructors can try to connect the course content with real-world examples and current events, showing students how the skills they are learning can be applied to contemporary issues. Additionally, instructors can create a supportive learning environment where students feel comfortable expressing their opinions and ideas, allowing them to see the relevance and value of their contributions to class discussions. Lastly, instructors can also provide feedback and recognition for students who actively engage in the learning process, which can motivate other students to participate as well.

#### **Complexity and diversity of international relations topics**

It is a valid point that the complexity and diversity of international relations topics can make it challenging for students to comprehend and communicate effectively. The field of international relations covers a wide range of topics, including history, politics, economics, culture, and language. Therefore, it requires students to have a broad knowledge base and critical thinking skills to analyze and evaluate the information effectively. Additionally, the use of specialized terminology and jargon in international relations can be intimidating and confusing for students who are not familiar with them. However, with the appropriate teaching strategies and the use of various resources such as multimedia materials, case studies, and simulations, students can improve their comprehension and communication skills in the field of international relations.

To address the challenge of complex and diverse international relations topics, several solutions can be employed. First, teachers can provide students with a clear and structured curriculum that breaks down complex topics into more manageable components. This can involve providing background information and context, as well as using examples and case studies to illustrate key concepts. Second, teachers can incorporate various teaching methods and materials to cater to students' diverse learning styles and interests. This can include visual aids, interactive activities, and multimedia resources such as videos and podcasts. Third, teachers can encourage active learning and critical thinking by engaging students in discussions and debates that promote reflection and analysis. They can also provide opportunities

for students to practice their language and communication skills through group projects, presentations, and writing assignments. Finally, it is important to foster a supportive and inclusive learning environment that encourages students to feel comfortable expressing their ideas and asking questions. This can involve creating opportunities for peer feedback and collaboration, as well as providing individualized support and guidance where needed.

#### **Lack of opportunities for practical application of language and discourse skills**

The lack of opportunities for practical application of language and discourse skills outside the classroom setting is a common issue that may limit the development of discourse competence. Students may have limited exposure to the target language and may not have many opportunities to practice their language and discourse skills in real-life situations. To address this issue, educators can incorporate more opportunities for practical application of language and discourse skills into the curriculum. This could include activities such as language exchange programs, internships, and participation in academic conferences or debates. Additionally, educators can encourage students to engage with authentic materials such as news articles, podcasts, and videos in the target language to improve their understanding of international relations topics and enhance their language proficiency.

### **CONCLUSION**

The process of forming discourse competence of students in the field of international relations is complex and challenging. Students may face various issues, such as the diversity of academic backgrounds and language proficiency levels, the lack of motivation, the complexity and diversity of international relations topics, and the limited opportunities for practical application of language and discourse skills. To address these challenges, various solutions can be employed, including differentiated instruction, the use of real-world examples, the incorporation of technology, and the promotion of extracurricular activities. Despite the difficulties, the development of discourse competence is crucial for students' success in the field of international relations, as effective communication is necessary for understanding and analyzing complex issues and for building relationships with individuals from different cultural backgrounds.

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# THE COVID-19 PANDEMIC AND HUMAN DIGNITY: THE CASE OF MIGRANT LABOURERS IN INDIA

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## ABSTRACT

*The Indian government has implemented a number of measures to stop the spread of the new coronavirus because it was one of the countries that had been severely afflicted. While actions like the lockdown caused major harm to various societal groups, the situation of migrant workers from other states in India was devastating. The migrant labourers trapped in various regions of the country felt like second-class citizens while the affluent segments of society could afford the stringent restrictions imposed by the state. This study offers an ethical discussion of the pandemic-era welfare state and the human dignity of migratory workers. Data acquired from articles on the topic published in state-approved media were analysed using the theoretical framework of human dignity violation. The study's conclusion includes a critical evaluation of the marginalised people's human dignity in a purported modern welfare state.*

**KEYWORDS:** *Welfare state, Human dignity, Intersectionality, Privilege, Migrant labourers, COVID-19*

## INTRODUCTION

One of the deadliest pandemics in the history of modern virology has been COVID-19. In order to contain the virus, the globe has had to rely on preventive measures combined with symptomatic therapy due to the lack of pathogen-specific treatments. The pandemic has significantly harmed social lives and disturbed the global economy. The pandemic has affected social and economic systems, making it a national priority for all countries in the world. Thus, governance has emerged as a crucial component in the pandemic situation's management. The world's nations implemented precautionary measures like lockdowns of public venues and travel bans as a result of the virus's rapid rate of transmission and possible harm. So, the fight against COVID-19 involves not just a pathogen and modern medicine but both the state and the pathogen. The effects of this "state versus pathogen" scenario on everyday people's life have sparked a discussion on the "ethics of the state-initiated measures." While the government must base its actions on the "welfare of the citizens," its applicability to all citizens raises questions. Citizens of a country fall into various categories, some of which may overlap, suggesting intersectional. For instance, it is possible to be an Indian national, poor, and migratory worker all at once. The state's actions performed in the interest of its people's wellbeing do not always have to take disadvantageous citizens into consideration.

In order to stop the COVID-19 epidemic from spreading, the Indian Union, the country's government, declared a statewide lockdown on March 24, 2020. This lockdown included travel bans and limitations on assembling in public places. Although

migrant workers were one of the most impacted groups, many other underprivileged individuals were not taken into account in the state's "lockdown" approach. Especially in terms of infrastructural development, migrant labourers help India's economy grow. The construction of infrastructure and other unskilled jobs in India's major cities frequently include the exploitation of migrant labourers. Migrant workers in India were left without a job or a source of income due to the pandemic control efforts. The fact that the migrants were unable to return to their hometowns owing to the travel ban only made matters worse. The impact of the state's COVID-19 containment measures on migrant workers and the state's response to those measures are critically evaluated in this article. The investigation is based on articles from state-approved media outlets. An ethical discussion about "human dignity in a welfare state" is the first step of the research, which is then followed by a critical analysis of media content about the "status of migratory labourers" during the epidemic.

## HUMAN DIGNITY AND HUMAN RIGHTS

The "Kantian deontology" is largely responsible for the development of the idea of human dignity as we know it today. The deontological ethical position holds that because humans are "ends in themselves," they have a moral dimension and hence possess inherent dignity. The presumption directly contradicts the notion that utility and dignity go hand in hand. Instead, the concept is that humanity has dignity in and of itself (Sensen, 2016). The idea of human dignity has evolved in modern civilizations in and around the Kantian deontological perspective. The international mandates affirm that all people



are equally endowed with human dignity (Kotzmann&Seery, 2017).

The Universal Declaration of Human Rights, which was adopted by the United Nations in 1948, states in Article 1 that "All human beings are born free and equal in dignity and rights." Hence, a crucial tenet of the contemporary human rights notion is human dignity. There are four basic ways to deprive someone of their sense of dignity: humiliation, instrumentalization, degradation, and dehumanisation (Kaufmann et al., 2011). The social structure tasked with preserving human dignity is the state. In order to uphold human dignity, member states are obligated under Article 22 of the 1948 Universal Declaration of Human Rights to provide social security in addition to economic, social, and cultural rights. Human rights are derived from the idea of human dignity. As a result, a welfare state's foundational principle is the idea of human dignity. Every welfare state has a duty to uphold human dignity, which includes ensuring that unemployment or disability does not deprive people of their means of subsistence, that every citizen's rights are unaffected, that there is a functioning, sustainable economy, that assistance is given to those who cannot help themselves, and that existential risks like fear are eliminated (Steigleder, 2014). According to Article 22 of the United Nations Universal Declaration of Human Rights, welfare states establish "basic rights" in response to the urge for respect for human dignity.

#### Migrant Labourers in India : an Overview

The poor and the marginalised are compelled to move to urban areas in search of work because of the widening gap between the rich and the poor in India's liberalising economy. Together with many other variables, the migration of people from rural to urban areas is a result of poverty and the junction of casteism and poverty. Unskilled labourers may migrate both within and across states in India. In India, there are 307 million people who have moved away from their birthplace, of whom 41 million (13%) are interstate migrants, according to the 2011 census. 140 million of the 307 million migrants relocate in search of employment. Those who relocate from one state to another may be skilled or unskilled migrants. Migrant labourers are frequently engaged in the low-wage, high-risk informal sector, which calls for unskilled or semi-skilled labour (DDU-GKY Ministry of Rural Development, 2018). In India's labour force, there are at least 100 million migrant workers earning low wages (Shah & Lerche, 2020). Unskilled migrant workers make up a group that experiences prejudice and discrimination frequently. Interstate migrant labourers make up 56 million of these unskilled migrant workers (Census, 2011), the bulk of whom rely on daily employment in the unorganised sector. Given the nature of their profession, it is common for these employees to not even have a legitimate identification card (Varma, 2020).

#### INTERSTATE MIGRANT LABOURERS AND INTERSECTIONAL

The concept of intersectionality focuses on the connections between and effects of various forms of discrimination. It looks on the impact that power dynamics have on interpersonal interactions and experiences. A concept called intersectionality looks at social and political life as the result of many different variables. An intersectional perspective on social inequality would show the interconnectedness of the social divisions causing the issue (Collins & Bilge, 2016). An intersectional worldview of the unorganised sector's interstate migratory worker population would shed light on a number of interconnected dimensions. Caste, class, ethnicity, and many other factors play a role in the predicament of the population of migrant workers in both their home countries and their host countries.

One of the main causes of interstate migration in India is poverty. In search of fortune, poor people, many of them are from rural areas of India, move to states with higher HDI and greater economic development. But these people's poverty is not a standalone occurrence. Interstate migrant workers in India are a population that endures a number of interrelated difficulties. It is discovered that those who are deemed to be at the bottom of the caste system work the hardest and in the worst conditions as migrant labourers. The states where these labourers are from have the lowest human development indices and are infamous for upper caste wealth extraction, leaving lower caste individuals with essentially little wealth (Shah & Lerche, 2020).

The caste structure causes poverty, which in turn encourages migration to other states, demonstrating the intersectional character of interstate labour movement in India. People from lower castes are frequently put in low-paying, pointless tasks and face prejudice at work (Banerjee & Knight, 1985; Das & Dutta, 2007; Madheswaran&Attewell, 2007). Curiously, the situation does not just persist in the home countries. Migrant workers frequently use brokerage platforms to get on the job market. The labourers are frequently exploited by labour brokers in the host states by being hired for cheaper rates (Picherit, 2019). While moving to a new state, persons who previously faced discrimination on the basis of class and caste now face additional prejudice based on language and ethnicity. The inhabitants of the "receiving states" discriminate against migrant workers in a variety of ways, including on the basis of their ethnicity and language, in addition to the poverty- and caste-related injustices they face in their home countries. A serious violation of dignity is caused by this dual burden of discrimination in the "receiving state" and the original state. Interstate migrant workers are among the most vulnerable groups of the population because of their estrangement from their country of origin and their family members, as well as poverty and prejudice. So, it is clear that interstate migrant workers are a marginalised group in society who face many forms of discrimination in a so-called welfare state.



## THE DOWNSIDE OF BEING AN INTERSTATE MIGRANT LABOURER IN INDIA

The discrimination faced by migrant workers makes their socioeconomic situation worse. A migrant worker's issues start with accommodation and progress to risk to life. To reduce living expenses, migrant labourers live in cramped, unsanitary housing infrastructures. Migrant workers frequently wind up living in unclean conditions, eating poorly, skimping on personal cleanliness, and otherwise putting themselves in dangerous living situations in an effort to reduce the cost of living in the "receiving state" (Ashok & Thomas, 2014a, b; De Haan, 1997; Zabeer et al., 2019). In addition to having a difficult time finding housing, migrant workers are subject to hazardous working circumstances. Interstate migrant workers are frequently placed in risky workplaces like construction sites, where they run the danger of mishaps, falls, and machinery-related injuries (Jane, 2016). Interstate migrant workers are also exploited with low pay and long hours (Agarwal & Raj, 2020). Migrant workers frequently don't participate in decisions made about their areas of employment. The decision-making process is controlled by the "receiving state" contractors. This is owing to migrant workers' lack of familiarity with the "receiving state's" sociocultural fabric and the fact that, in the absence of a state-imposed system, they are hired through private businesses and people.

In India, migrant workers face discrimination and exploitation every day of their lives. They frequently face prejudice and exploitation in the "receiving state" in addition to class and caste-based persecution in their own country. The issue of human dignity is brought up by this situation of being a discriminated and exploited human being. According to international conventions and the Indian Constitution, migrant workers have a right to be citizens with dignity, however they are frequently denied this respect. The pandemic scenario exacerbated this dilemma, and the next part discusses how migrant workers' human dignity is being violated under the welfare state of India.

## THE IMPACT OF THE COVID-19 PANDEMIC ON INTERSTATE MIGRANT LABOURERS

The population as a whole went through sufferings on the economic, social, and psychological fronts as a result of the COVID-19 epidemic, which created an unusually terrible situation. Interstate migrant workers, a vulnerable demographic, experienced never-before-seen sufferings on a variety of fronts, including material, psycho-social, and socio-political.

### Material Impact

The pandemic's most fundamental impact on the migrant labourers was on the financial front. When the pandemic hit the labour market, inexperienced workers with poor job security quickly found themselves out of a job and without the necessary financial resources to live. The pandemic control measures, including as the lockdown, made the employment prospects for migrant workers even more dubious (Guha et al., 2020; Khanna, 2020). The pandemic affected even the most basic demands of the migrant labourers in India, leading to a scenario where they

had no income (Singh, 2020). Economic instability brought on by the pandemic, in turn, created the path for psycho-social suffering among migratory workers.

### Psycho-social Impact

Migrant workers were troubled by the unknown length of the lockdown, their inability to travel and visit their family, their fear of being abandoned by their employers, uncertain career prospects, etc (Chander et al., 2020; Kumar et al., 2020). This made migrant workers' anguish worse, along with their worry about social marginalisation. Migrant workers' mental health was negatively impacted by social exclusion because they are more likely to experience discrimination and loss of social standing. The state-mandated measures, such as mandatory isolations and quarantines, had a negative impact on the migrant workers' mental health (Choudhari, 2020).

### The Socio-political Dimension of the Pandemic Induced Hardships of Migrant Labourers

The difficulties that migratory workers experienced during the pandemic demonstrate how the social system precariously contributed to their suffering. The limited scope of the social security programmes available to migrant workers was demonstrated by the governmental authorities' incapacity to assure their welfare collectively during a bad event. The concurrent list of the Indian constitution includes "labour," which suggests that both the state and the federal governments are equally liable for launching welfare initiatives in this area. The ineffectiveness of the state apparatus on this regard is explained by the lack of a direct grievance redressal mechanism for migratory labourers. The Supreme Court of India's suo-moto intervention strengthened the claim that the state had not been responding to the situation in an effective and desired way by taking cognizance of the violation of migrant labourers' fundamental rights and ordering the state to meet their immediate needs (Chander et al., 2020; Rajagopal, 2020).

The notion of safeguarding the wellbeing of migrant labourers is at the centre of the policies and legislation in black and white, but the actual situation is far from perfect. It is disheartening that the migrant labourers are not treated with the respect they merit on a human level by the system that exploits them for economic gain. The predicament of migrant workers is constantly influenced by state and societal influences, something that the epidemic clearly highlighted. While some state policies had been least sympathetic to migrant workers, aggravating their situation (BBC, 2020; Aljazeera, 2020; Gupta et al., 2020; Pandey, 2020; Chaturvedi, 2020; First Post, 2020; Babu & Sahay, 2020; Kulkarni, 2020), it was the state's incapacity to deal with the circumstance and inaction that, in certain cases, caused people to face increasing difficulty (Lalwani, 2020; Ameen, 2020; The Wire, 2020; The Federal, 2020; News 18, 2020; Kulkarni, 2020). The condition of migrant workers had also been made worse by societal attitudes, including negative perspectives and unfavourable responses (The New Indian Express, 2020; Tomlinson & Chaurasia, 2020).



## METHODS AND MATERIALS

This study is a qualitative investigation of the instance of an interstate migrant worker's right to dignity being violated in India during the pandemic. The case has been investigated from the perspective of "human dignity" under the conceptual framework of "violation of human dignity" (Sensen, 2016). (Kaufmann et al., 2011). The study uses a narrative approach, creating a narrative on the treatment of migrant workers' dignity during the pandemic using information from state-approved media. Data for the study was acquired from media reports covering the time period from March 24 (the day the lockdown in India was announced) to May 24, 2020, when interstate migrant workers were either stranded in host states or made a valiant effort to return to their home states. Using the terms "migrants," "migrant labourers," "pandemic," "human dignity," "human rights," "discrimination," and "India," we were able to locate incidents of violations of the dignity of migrant workers at this time in India. The results regarding unskilled interstate migrant labourers were examined in the context of "violations of human dignity," and the pertinent results were enlisted for further investigation (Table (Table1).1)). At this point, reports from unlicensed media outlets were disregarded, and complete inter-coder consensus was obtained over the listing of the report's dignity violations. To maintain objectivity, only the reports that listed factual events were chosen, and those that were opinions or comments were disregarded. The selected reports fall under three broad categories viz.

- a. Violations caused by state/state mechanisms: This category of reports covers instances in which a state government or its machinery, primarily the bureaucracy, engaged in behaviour that violated the dignity of migrant workers.
- b. Violations brought on by state inefficiency: These reports cover incidents in which the dignity of migrant workers was violated as a result of the state's incapacity, typically, to take the required steps to prevent negative consequences.
- c. Infractions brought on by societal perceptions: These reports cover people's general attitudes or behaviours that have led to violations of migrant workers' human rights.

The three types of reports were examined in the context of human rights abuses in order to describe the instance of migrant workers' respect for human rights during the epidemic in India. There were 25 reports overall, and the stories that were chosen were analysed thematically within the context of human dignity violations, including humiliation, degradation, instrumentalization, and dehumanisation (Kaufmann et al., 2011). One form of violation frequently had components of another form of violation in the situations given in the reports. In these situations, the reports were taken into account under the categories of infractions that they most closely related to. The following parts present the reports' topically classified findings.

## THE HUMILIATION OF UNSKILLED INTERSTATE MIGRANT LABOURERS DURING THE PANDEMIC

Any affront to one's or a group's pride is considered to be humiliation. It involves an emotional reaction to a forced or intentional decline in social position (Burton, 2014). Both an objective and a subjective experience for the victim, humiliation exists. Human dignity can be violated by a person or a group being treated humiliation (Kaufmann, et al., 2011). According to Kaufmann (2011), there are three different ways to shame a group: "direct group humiliation," "symbolic group humiliation," and "representative group humiliation." The constitution and laws in India make sure that there are few direct and symbolic humiliations. The term "representative humiliation" refers to the humiliation of one or more members of a group who then cause the entire group to feel humiliated. This existed in the case of the migratory workers during the pandemic.

On March 24, 2020, the Indian state imposed a lockdown, which resulted in job losses and a consequent lack of means of subsistence, leaving the migratory labourers trapped in host states. Several migrant workers who were in extreme poverty had to walk to their home states because of the travel ban that was implemented along with the lockdown (Pandey, 2020). The migrant workers were placed in an embarrassing situation after making the agonising journey across many states to reach their hometown. Interstate migrant workers were viewed as possible virus carriers by bureaucrats in some states' administrative systems, and the Uttar Pradesh officials' approach was degrading and offended the collective human dignity of the migrant workers. The authorities doused the migrant workers with chemical liquids rather than using any scientific methods (BBC, 2020; Aljazeera, 2020; Gupta et al., 2020). The World Health Organization rejected this approach as being unscientific (Fox, 2020). The fact that migrant workers had to endure this humiliation while none of the expatriated residents living abroad had to indicates a blatant instance of discrimination and a breach of human dignity. The random act of "representative humiliation" painted a picture of migrant workers as dirty virus carriers, even if it might be argued that this was an administrative error rather than a violation of state policy.

## DEGRADATION OF UNSKILLED INTERSTATE MIGRANT LABOURERS DURING THE PANDEMIC

A person's autonomy is violated, and their emotional experience is subjected to violence, which is what is meant by degradation. Degradation is characterised by a disregard for a person's personality and typically involves forcing a person to do something against his or her will (Webster, 2011). Degradation is a frequent type of violation of dignity in the day-to-day life of migrant workers; it frequently takes the shape of a lack of decision-making autonomy, subpar housing provided by contractors, etc. The epidemic sparked a situation that has worsened the degrading treatment of migrant workers' human dignity. The treatment of migrant workers collectively is one of the outstanding features of the degradation during the pandemic.



There have been accounts of how individuals were prevented from making independent decisions on their travel and housing choices throughout the pandemic.

Degradation of migrant workers as a group had occurred frequently. The first of these is the means of transportation for migratory workers travelling between states. Although the government set up "Shramik trains" for migrant workers, the demand outstripped the supply, causing thousands of migrant workers to walk to their hometowns (India Today, 2020). Due to the government's lack of an organised plan for their repatriation and rehabilitation, the migrant workers found themselves treated as inferior or second-class people. The state took systematic steps to repatriate its people who were employed abroad, but paid less attention to the migrant workers from the Indian Union. Despite Indian Railways' claims to the contrary, the few trains the government had organised to bring the migrant labourers home were frequently late and short on food and water (Lalwani, 2020; Ameen, 2020; The Wire, 2020; The Federal, 2020; News 18, 2020). These events indicate that migrant workers as a whole are being degraded.

### **INSTRUMENTALISATION OF UNSKILLED INTERSTATE MIGRANT LABOURERS DURING THE PANDEMIC**

Instrumentalization, or treating people like objects in order to obtain something, is employing people as a method to attain goals (Kaufmann, 2011). The pandemic crisis cleared the way for even more instrumentalization, even if it is a common form of human dignity violation against migrant workers in free market economies. Throughout the pandemic, political and organisational actors profited from the misery of migratory workers.

Political negotiations arose in several Indian states as a result of the lack of a standardised state-run mechanism to enable the transit of migrant workers. For instance, an opposition party in the state of Uttar Pradesh provided free buses to take migrant workers to their hometowns. The state authorities rejected the deal due to claimed forged car documentation (Chaturvedi, 2020; First Post, 2020). The episode demonstrates how political parties used the misery of migrant workers to further their objective of improved Public Relations Rating. Similar circumstances were reported in Kerala, where one of the opposition parties offered to pay the migrant workers' travel expenses, but the state administration declined the proposal (Babu&Sahay, 2020). These events demonstrate how political parties view migrant workers as little more than tools. This suggests that instrumentalization has violated the dignity of migrant workers as a group.

### **DEHUMANISATION OF UNSKILLED INTERSTATE MIGRANT LABOURERS DURING THE PANDEMIC**

Dehumanization is the practise of considering individuals as less than human. Dehumanization is frequently discussed in relation to conflicts and genocidal acts. Yet, removing a person's identity or group is one of two traits that characterises a dehumanising scenario (Kelman, 1973). Treating someone as a lesser human

does not usually entail violent conflict. Exclusion doesn't always have to be direct and aggressive; it might instead be indirect exclusion (Oliver, 2011). Although it may not include organised dehumanisation, indirect identity robbery and exile from the community are instances of dehumanisation. Although though the class and caste systems frequently dehumanise migrant workers, the pandemic time was more traumatic for them.

It was such a dehumanising act to spray chemical substances on migrant workers (BBC, 2020; Aljazeera, 2020; Gupta et al., 2020). The predicament of the migrant labourers was revealed in reports from the state of Uttar Pradesh, when migrants were seen being videotaped racing to collect bananas in a transit centre (The Quint, 2020). The demands of the affluent middle class and upper class had been catered to by the state, but the migrant workers received no such treatment. The migrant workers suffered a major loss of their personal integrity, which had a knock-on effect on their self-esteem and sense of identity.

### **Whose Welfare State ?the Dignity Violated**

"Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection," reads Article 23 of the Universal Declaration of Human Rights (1948). The article emphasises how crucial it is to safeguard the working class's human dignity by providing social protection when it is required. The article asks the member nations to ensure that labourers' human dignity is not violated. A class of people who experience human dignity breaches are migrant workers, and the pandemic exposed some of the severe ways in which they are violated. Equal chances, a just distribution of income, and a civic duty to the disadvantaged are the cornerstones of a welfare state (Encyclopaedia Britannica, n.d.). A welfare state has the right to advance its residents' social and economic well-being. The Indian Constitution's Directive Principles of State Policy aim to advance citizen welfare by emphasising social, economic, and political justice (Joshi, 1983). The constitution calls for the protection of human dignity as part of its concept of social, political, and economic justice. The migrant workers were subjected to clear-cut social, economic, and political injustice patterns that deprived them their dignity. They experienced dehumanisation, degradation, instrumentalization, and other types of aggression against their dignity. Extreme cases of human dignity abuse during the pandemic were merely a symptom of deeper issues with society and the system. In contemporary India, migrant labourers are a population whose dignity is in jeopardy. It brings up the issue of the marginalized's dignity in a purported welfare state.

### **Pandemic Response: What Worked and What Needs Revamping:**

There have been examples of attempts to safeguard the welfare of migrant workers in many sections of the country, despite the fact that this research has mostly focused on abuses of human dignity. The central government launched a programme to offer





free food grains for 8 crore migrant labourers, while the state of Kerala built relief camps where migrant workers received food and recreational amenities (Nileena, 2020). (The Economic Times, 2020). By providing shelter, food, healthcare, and other essentials, non-governmental organisations and philanthropic organisations were essential in helping migrant workers meet their fundamental needs (Suresh et al., 2020). All of these initiatives aimed to protect the migrant workers' wellbeing. Unfortunately, these initiatives mostly focused on meeting the most basic requirements without taking into account the perspective of "rights" or "dignity."

A genuine welfare state must uphold the dignity of migrant workers as fellow citizens. The ability to repatriate individuals who were stranded in other countries demonstrated the effectiveness of the system for allocating resources for the welfare of the populace during the epidemic. The migrant labourers also required the same level of insight. They are equal citizens who also contribute to society and the economy. There are considerable concerns about the nature of the welfare state in place given the disparities people experience in their own country. The state should take considerable steps to impose stringent "human dignity protection" laws in order to improve the current scenario. In order to integrate migrant workers into society's mainstream social fabric, the state should address the issue from a standpoint of "dignity." One immediate manifestation of this may be the introduction of migrant workers' social security programmes. To address the issues posed by migrant labourers, the government and society must move beyond a "needs-based strategy" and begin using a "dignity-based approach."

## CONCLUSION

Although the concept of a welfare state is inclusive in and of itself, it is not frequently put into practise. In order to improve the welfare of migrant workers, the Indian Union has implemented laws like The Inter-State Migrant Workmen Act, (1979). Yet, the act's main focus is on civil and economic rights. Due to poor execution, even the minimal civil and financial protection provided by the legislation is frequently compromised. The second and third generations of human rights, which substantially uphold human dignity, have not yet been addressed. The migrant labourers' human dignity is violated as a result of prejudice, which is caused by the caste and class gap that is ingrained in India's social structure. This fundamentally unfair social system has contributed to the cases of migrant workers' human rights being violated throughout the epidemic.

Since the epidemic was an unexpected event that caught the state off guard, it cannot be justified as a basis to jeopardise a group of citizens' rights and dignity. The pandemic-caused anguish was merely the system's complacency coming to a head. Action is still pending on the report of the working group on migration that the Ministry of Housing and Urban Poverty Alleviation established in 2017 and which suggested extensive

social security measures for migrant workers. This demonstrates how relaxed the state has been in this area. The state's ability to manage crises was demonstrated by the seeming effectiveness with which resources were pooled to repatriate Indians from overseas. Yet, in the case of migrant workers, this forceful approach was missing, casting doubt on the state's commitment to internal migrants. A long-term plan needs to be started by the state for the migrant workers. A centralised strategy is impossible given the scale of India's migrant population (Suresh et al., 2020). An improved option is a public-private partnership model that decentralises the approach to the welfare of migrant workers. Also, the problems faced by migrant workers must be seen from a dignity viewpoint that emphasises their rights.

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# A NOVEL IMAGE PROCESSING BASED AUTOMATED ATTENDANCE SYSTEM USING FACE RECOGNITION

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## ABSTRACT

*Automated face recognition has grown significantly in popularity in recent years, mostly for two reasons: first, it is possible thanks to the availability of modern technologies, and second, it can speed up the process of taking student attendance. Due of the time it saves, its utilisation will increase significantly in the future. Manually taking attendance takes a lot of time, and some people might even fake it. To cut down on both time consumption and attendance fraud, With the use of an image or video frame, face recognition is used to identify the student in the room and record his attendance. We suggested a machine learning approach to managing attendance called the CNN algorithm. The face detection and identification technology will automatically identify the pupils in the room and record their attendance. The faculty has the ability to add student information like name, USN, contact information (phone, email, etc.). The image is then recorded using a high-definition camera during class time. The Convolutional Neural Networks (CNN) approach of machine learning is used to detect, segment, and store the faces of students during lectures for database verification.*

**KEYWORDS**-Covolutional Neural Networks, Automated Face Recognition, Machine learning

## I. INTRODUCTION

In this current era of automation, numerous scientific breakthroughs and technologies have been developed to save time, increase accuracy, and cut expenses to improve the quality of our lives. Automation is the breakthrough that has been made in the realm of traditional jobs, and it will eventually replace them. Send a message to one presence. helper technology These systems frequently use biometrics. data that is both web-based and smart card-based

These Systems are frequently used in a range of enterprises. The following formula is used to determine attendance time traditionally: When the strength is lacking, it takes a lot of time and effort. Because it saves time and can be used for security, the automated attendance system offers an advantage over the traditional approach. Also, it helps to prevent providing incorrect guidance. a sophisticated method for tracking attendance The use of bio metrics, which is expensive in our case, often entails database management and image acquisition. Face detection, preprocessing, and feature extraction and classification stages of development.

The post-processing stage is then finished. Techniques for machine learning are employed. On paper, we may record automatic attendance. To build this model, convolutional neural networks are utilised. Classroom face recognition software The occurrence and absence of the occurrence and absence of the occurrence and absence of the The student will be informed if they get a message.

## II. EXISTING SYSTEM

Facial recognition software can be used to register presence by comparing a student's face to one that has already been detected by a high-resolution digital camera. The database

includes pictures of faces. as soon as the student's face matches the one in the database-stored snapshot. Your presence is noted in the attendance database for the purpose of a calculation later on. If the photograph you took isn't quite perfect or doesn't match the kids' faces, a fresh photograph is saved in the database, the repository of data. With this approach, there is a chance that the picture won't be properly taken by the camera or that you'll miss the chance to photograph a few kids.

## III. PROPOSED SYSTEM

The intended use of the proposed technology is to photograph each student's face and save it in a database for future use. This document employs the convolutional Neural Networks technique. Convolutional neural networks, often known as ConvNets, are a subset of deep neural networks that are used in deep learning to analyse visual data.

The student's face must be photographed in a method that allows for the detection of all of the student's facial characteristics, as well as the student's position and posture. The technology takes a video, which is then analysed to recognise the face and update the attendance database, eliminating the need for the teacher to physically take attendance in the classroom. The main advantage of the study is that the video data collected may be used to identify and identify students by turning the data into an image. Moreover, a recognised image of the student is included in attendance; otherwise, the database records the absence. The absent student will receive a text message at his phone number informing him of his absence.

1. Image capture: Photographs of the pupils are taken and sent for face detection.

2. Face Detection: The face recognition procedure is significantly enhanced by the use of a face detection approach.  
 3. Increase the speed of the system

The system is trained on these photos as well as the image that was taken upon enrolment.

The steps for training the system are as follows:

1. Facial identification
2. Face Allignment

Facenet can be used to encode data.

One must train the SVM classifier before you can improve it.

The image that was acquired in the previous stage is the input for this stage.

Second, each image is generated with a 128-dimension unique encoding by Facenet, the system's brain. Lastly, the SVM classifier is trained using the 128 Dimension encoding.

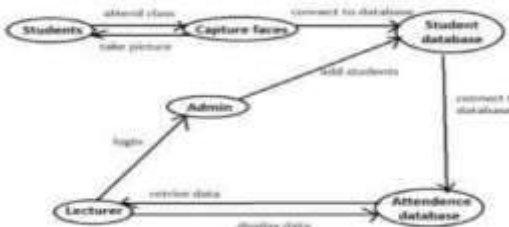
4. Create a test picture

After being taught on the database, our system is then put into the classroom. Everything is visible thanks to the camera's setup.

5. Facial identification

#### IV DESIGN OF THE SYSTEM

A system's architecture, which is a conceptual design, determines the structure and behaviour of the system. An architectural description is a formal description of a system intended to aid in understanding its structural characteristics. It outlines a plan for acquiring goods and creating systems that will work together to achieve the overall system and describes the system building blocks or components. This will provide you the ability to manage your investment in a way that meets the needs of your business.

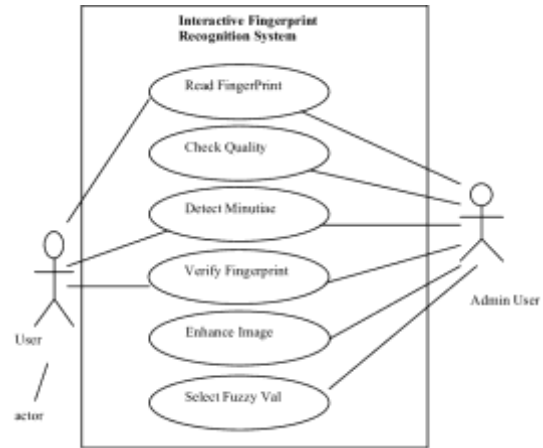


**Fig.1.,System architecture**

A database in the form of a csv file is given to the provided email address along with the date the attendance was taken, marking all of the students in the class as present. It has been established that the smart attendance system is a successful classroom attendance system. This tactic reduces the use of proxies and fake attendance because it is non-intrusive.

There have been several approaches to a smart attendance system, but it has been shown that a face recognition-based strategy is the best choice. It is essential to have a trustworthy system in place for recording attendance. In a classroom, we successfully used the same strategy. Our system is easy to install and operate because all that is needed for facial recognition is a basic camera module and a computer. Moreover, a Raspberry Pi with internet access can operate our system.

#### V.USE CASE DIAGRAM



**Fig.2.Use case Diagram**

Use-case diagrams aid in capturing system requirements and depict a system's behaviour in UML. The scope and high-level functions of a system are described in use-case diagrams. The interactions between the system and its actors are also depicted in these diagrams.

1. *Class Diagram:* A class diagram in the Unified Modeling Language shows the connections and source code dependencies between classes (UML). An object, which is a particular entity in a programme or the unit of code that represents that entity in this context, or class provides the methods and variables in an object.

2. *Unified Modeling Language (UML) diagrams* They are used to represent the flow of messages between objects during an interaction are known as sequence diagrams. A group of objects connected by lifelines, as well as the messages they send throughout the course of an interaction, make up a sequence diagram.

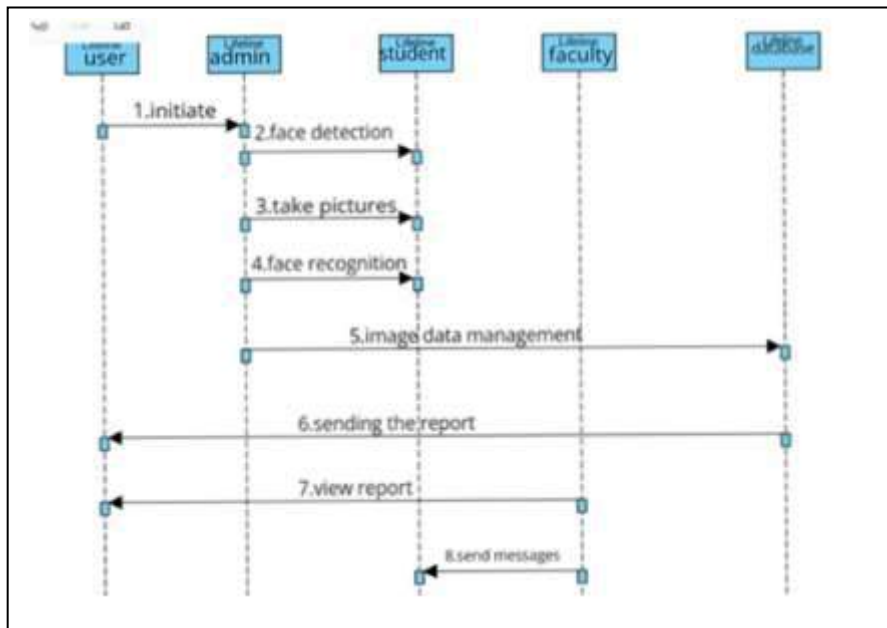


Fig.3.Sequence Diagram

## VI.CONCLUSION

In this study, we develop an automatic attendance system for a classroom that uses the CNN algorithm to recognise students' faces in the classroom, section, or laboratory and automatically record their attendance. It is more efficient in terms of time and effort, particularly when there are many pupils in the class. The suggested strategy is a straightforward way to monitor a student's attendance using a camera and face recognition. The faces are entered in a database once they have been matched to confirm their presence or absence. After comparing the stored photos in the database, it automatically stamps the students' attendance in the classroom. The date can be used to track a student's attendance status and send email notifications to the teachers. Send a text message to their phone number if they aren't available. This method of automatically and covertly monitoring students during lectures and classes is a better approach to keep track of attendance.

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# MGA TURA: A LITERARY ANALYSIS OF MANSAKA POEMS

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## ABSTRACT

*The purpose of this undertaking was to illuminate the literary analysis of poetry as perceived in Mansaka context at Maragusan, Compostela Valley Province. Phenomenological approach was employed to highlight the culture, tradition and practices of the participants. This study aimed to develop and gather deep information through inductive and qualitative method such as interviews and discussions. Further, it involved 14 Mansaka respondents in the Municipality of Maragusan, Compostela Valley Province. Through the employed in- depth interviews and focus group discussion, it was revealed that the poems of Mansaka have different literary features like theme, tone, rhyme scheme, simile, hyperbole, repetitions, assonance, consonance and alliteration and was only limited with these salient features. The findings also revealed that the oral traditions of the elders, educating the young generations and highlighted during rituals played a great role in preserving their poetry. Finally, the different insights of Mansaka tribesmen revealed the importance of positive impact of technology, academic integration, support from the government, roles of young generations in preservation and poetry showcasing tradition. Hence, this study will be resonated in the academe and opens a profound significance on appreciating the literary pieces of Mansaka.*

**KEYWORDS:** MAED- Teaching English, Mansaka, literary analysis, poems, Philippines

## I. INTRODUCTION

### INTRODUCTION

All through history, poetry is said to be old craftsmanship. It is as ageless as the fore ages were. The way a line of poetry is organized can be viewed as a sort of piece of clothing that shapes and garments the idea inside it. Mansaka tribesmen are known for communicating their deepest feelings and valued encounters through composing poetry. It is a type of writing, talked or composed, that underlines musicality, other multifaceted examples of sound and symbolism, and the numerous conceivable ways that words can recommend meaning (Bascom, 2012).

Each individual communicates feelings through reflecting in certain poetry where one's convention and culture is being featured. From this, the dialect they put into poems can emanate correspondence among the readers. In any case, the saddest truth uncovers that as we enter another thousand years, local dialects are endangered and biting the dust that even the social convictions and practices are being neglected (Jacobson, 2011).

Apparently, the most concerning of all is the undocumented and unpreserved literary pieces of the native people. These must have been kept in record for the purpose of proliferating them amongst the generation yet, ironically it is being gradually forgotten as the days passed by. And there could be a great fright that the historical significance might lose its valuable meaning and be buried. Further, now this becomes a silent crisis in ethnic communities as elders die, and with them the language and literature of their tribe (Alexander, 2013).

In like way, it is fascinating to take note of that practices, customs and functions of the Mansaka in Maragusan

still exist today in few spots. Be that as it may, the more youthful ages could never again value its genuine substance and notwithstanding neglecting the oral customs of transmitted writing, for example, stories, lyrics and poetries. What's more, in this happening, nobody is to be fault. We couldn't follow it back on the older folks' method for transmitting their writing orally. In light of these certainties, the Mansaka literary pieces in Maragusan will in the long run be lost on the off chance that they are left undocumented in light of the fact that the present age will most likely be unable to assimilate and hold their social character. Further, their customary expressions and other artistic pieces are endangered because of modernization and globalization (Holden, Nadeau, & Jacobson, 2011).

### Purpose of the Study

The purpose of this phenomenological study was to capture and understand the rich literary pieces of Mansaka tribe in Maragusan through analyzing their poetry. It also aimed to keep their spoken and writing poems documented in order to be preserved and appreciated by the new generation and be used in academic purposes.

At this phase of research, recording the poems of Mansaka tribe in Maragusan is a social concern that identifies with their social safeguarding. A large portion of the artistic pieces are left undocumented for it was simply being gone by ages through an oral legend in a type of remembrance and recitation. What's more, it might immediately go to its sudden lost if ceaselessly neglected. All the more thus, these old convention has turned into an obstacle in developing and sustaining their scholarly pieces. Thinking about these practices, local individuals of Maragusan may have



overlooked its essentialness in the present circumstances. This phenomenological study would add to the growing body of knowledge about the usefulness of the theory of Cultural Poetics Approach in analyzing and comprehending ethno-linguistic poetries. Through this study, I would be able to acquire the salient information that would help us understand how Mansaka tribe expresses their feelings and emotions through their poetry and on how they create meanings out of it. It also aims to capture the unheard voices of the elders in far-flung areas; and how they cope with the common problems they encountered in preserving their poetry. Also, it seeks for further direction in the field of education as it is being used in curriculum. It envisions in helping the teachers handling Philippine Literature subjects to efficiently discuss tribal poetry amongst the students.

Further, this study also visualizes documenting the different experiences and insights of the Mansaka individuals in an in-depth interviews and focus group discussion both the positive and negative one from their own community, their locale at Maragusan, Compostela Valley Province. In general, the intent of this study was to seek, understand and provide detailed emphasis on the unheard stories of the participants as they willingly share their experiences during the interview. Moreover, it aimed to dig deeper on Mansaka's analysis of poetry.

### Theoretical Lens

This phenomenological study is tied down on the hypothesis of Stephen Greenblatt, "Cultural Poetics" or otherwise called "New Historicism". He underlined on the abstract content as a major aspect of a bigger social and authentic setting, and reader's cooperation with that work. New historicists endeavor to depict the way of life of a period by perusing a wide range of kinds of writings and focusing on a wide range of measurements of a culture. Further, the Mansaka poem is acknowledge when examined by this strategy (Monstrose, 1986).

This is additionally upheld by Clifford Geertz, social anthropologist, hypotheses and systems. He trusts that there exists no human instinct autonomous of culture. Cultural Poetics sees the writings as implanted in social setting, acknowledges history as a feature of writing and administration as energy of overwhelming. Additionally, it pronounces that history is one of numerous talks or methods for seeing and pondering the world. (Dollimore, 2013).

Likewise, in Cultural Poetics hypothesis, the objective of interpretative investigation is extremely the arrangement and comprehension of a poetics of culture. We will find the social universe of the content as well as the present day social powers working upon us as we arrange significance with printed material. As all of society is unpredictably interlaced, so are the readers and texts, both to each other and in the way of life in which the commentator lives and the writings are created. Furthermore, it sees a tasteful work as a social creation; a content's significance dwells in the social framework made out of interlocking talk of its writer, the content and its reader (Cox, 1993; Greenblatt, 1982; Howard, 1986).

Truth to be told, Louis Montrose additionally guarantees in his works that verifiable point of view assumes an essential part in investigating specific artistic pieces.

Likewise, pronouncing that history and writing must be viewed as orders to be examined together, put all writings in their suitable settings and trust that while we are looking into and finding out about various social orders that give the verifiable setting to different writings, we are at the same time finding out about ourselves, claim propensities and our own convictions (Howard, 2010).

This phenomenological study focused on analyzing the poetry of Mansaka tribe and the importance of preserving their rich literature. This also describes the literary features (theme, tone, simile, hyperbole, assonance, consonance, alliteration, repetition) of Mansaka's poetry.

### Definition of Terms

For reason of clarity, I defined the salient terms that I used in my study:

**Mga Tura.** This pertains to a Mansaka term for the English word, poem. Most typically Mansaka poems are the indications of their life, method for living, custom and culture, family and it additionally addresses the subject of significance of training and thanksgiving to their Supreme God "Magbabaya". All the more along these lines, it is being given over by ages through tongues and just few were being put into works (Svelmoe, 1995).

**Literary Analysis.** This alludes to the investigation of separating an entire into its segments or constituent parts. Through get together of the parts, one comes to comprehend the honesty of the entirety (Schwandt, 2015).

**Mansaka.** This relates to the expression "Mansaka" taken from the word "man" signifying "first" and "saka" signifying "to climb". The majority of them were moved in far-flung territories; Mansaka live along the Batoko River, the Manat Valley, the Maragusan Valley, the Hijo River the banks of Kingking, Maco, Kwambog, Hija, Tagum, Libuganon, Tuganay, ising and Panabo and different places in Compostela Valley Province. What's more, this abstract implies that Mansaka clans are the primary individuals to climb the mountains or go upstream. Before the Bisaya pioneers came, individuals used to recognize themselves just with where they originated from. Individuals living along the Agusan River were called Managusan while those living along the Karagan were called Mangaragan (Casagda, 2002; Rolando, 2004).

## II. METHODOLOGY

This chapter discussed the methods, procedures and instruments utilized in gathering information about the Literary Analysis of Mansaka Poems. This study was qualitative in nature.

### Research Design

A qualitative research design in a phenomenological approach using the literary analysis to identify the literary features of Mansaka poems was employed in this humble undertaking. It is qualitative research since it describes lived experiences of the participants (Cresswell, 2011).

Additionally, Phenomenological study describes the meaning for several individuals of their describing what all participants have in common as they experience a phenomenon. This design looked into the multiple perspectives of the situation and make generalizations of what is something like. In this design, it depended almost



exclusively on lengthy interviews with carefully selected sample participants (Raagas, 2010).

Moreover, this qualitative study involved interviews with Mansaka participants in far- flung area. As it most concerns on human experiences conducted in natural settings where information is processed through observed phenomenon. I used phenomenology of my study because it is centered on the peoples' lived experiences. Bracketing is necessary in a phenomenological study, which means the researcher must identify first what he wants to discover. Bracketing is the researcher's awareness on the possibility that their values, beliefs, and decisions may influence the setting of the research (Porter, 2011).

As part of this study, I was cautious and observant at all times, being aware on the pre- obtainable beliefs on the study. I did see to it that I could fully capture the participants' experiences as they shared it to me during the interview. I did heighten my awareness on the phenomenon that the participants had given during the interview however; I made sure to set aside my own views and personal experiences only of the participants by identifying its real fundamental nature. Hence, in describing the expressed phenomenon of the participants, I did use analogy as my approach. This would mean making comparisons, finding similarities and correlations of the different poetry so that common theme about the subject might be extracted. I interpreted then what constitutes to the essence of the phenomenon to my personal experiences and to the subject itself (Ariola, 2011).

Sources of qualitative data include profoundly interviews, personal observations, and reliable documents. In this study, I used specific strategies in obtaining information such as substantial interviews using video recorder, taking down notes, and focus group discussion. I also focused on the emotional details of the participants to create a significant output and significance of the study.

### Research Participants

In this phenomenological study, the participants were taken from the community of Maragusan, Compostela Valley. According to Dornyei (2010), the size of a focus group ranges between 6-10 people. Fewer than six people would limit the potential of the collective wisdom whereas too large a size makes it difficult for everyone to participate. When designing a focus group study, the two key technical questions to decide are (a) whether to have homogeneous or heterogeneous people in a group; and (b) how many groups to have.

There were representations of Mansaka who were between 21 years old and above. They comprise the Mansaka who served as the participants of the study. More so, a purposive sampling of five to twenty five individuals will be used in the phenomenological study. The number of participants in the study was 14 in 2 groups. Each group had 7 Mansaka. In this study, it was within the suggested range number of participants (Raagas, 2010).

### Data Analysis

Highlighted in the systematic and retrieved document was treated in the data analysis. The use of audio and video recorder became a tool to document the interview. The gathered documents and data were transcribed into written texts for the body. As defined by Biklen (2012), qualitative

analysis as systematically arranges the data which could be done through working, organizing and breaking it into managing, synthesizing, searching for patterns, discussing what is important and what is to be learned thus , it requires in-depth analysis of the raw data with its logical meaning of categories.

In addition to a more comprehensive analysis is the qualitative content analysis. Marrying (2012) defined first the content analysis as the use of replicable and valid method for making inferences from the text to other states or properties of its source. Following the analysis of the research, all analyzed information have the basis down from the authentic source which comes from the informants.

Triangulation may involve the use of different methods, especially focus groups and individual interviews and observation, which form the data collection strategies. Focus groups and individual interviews suffer from some common methodological shortcomings since both the interviews of a kind; their distinct characteristics also result in individual strengths. It provides sources of data that validated and crosschecked the findings of the interview and triangulation strengthens a study by combining methods (Patton, 2012).

Crabtree (2011) supported that triangulation is a method for validation or verification; qualitative researchers generally use this technique to ensure that an account is rich, comprehensive and well-developed. Third, to answer query number one (1), what are the literary features of Mansaka Poems? The participants were asked to simulate samples of poetry they have in Mansaka language. The theme evolved on topics preferred by the participants in the simulation. The transcribed data that were taken from the simulated conversation for query number one (1) what are the literary features of Mansaka Poems? , these data in the simulated Mansaka's poetry were analyzed on their literary features when used in expressing their poetry. To verify and check the terms used in the matrix, the terms were validated and counterchecked by an authentic Mansaka who was knowledgeable both in Mansaka language and English language.

### Ethical Consideration

The main concerns of my study were the individuals who belong to the certain peculiar tribe where I was not even part of it. Therefore, I ensured their safety, give full protection so that they will not lose their trust to me. I followed ethical standards in conducting this study as pointed by (Boyatzis, & Mack 2012), these are the following: respect for persons, beneficence, justice, consent and confidentiality.

### III. RESULTS

The conduct of the study generated a vital amount of data that were essential on this study. The data gathered from the focus group interview were tape-recorded. Their responses were transcribed and carefully assessed through making meticulous process of categorization of themes.

The 14 informants were two groups of Mansaka who shared a common interest and who use Mansaka in their conversations. For the first qualitative research question, the data were gathered through interview and focus group discussion and the themes were drawn. Another source of the



data was taken from the simulation of the informants who used Mansaka for conversations. The same data were used to analyze.

### **Research Question No. 1: What are the literary features of Mansaka Poems?**

Poetry plays a vital role in Mansaka's culture and tradition, hence, giving it an equal regard is a salient manner. It was revealed during the analysis that the Mansaka's poems have different literary devices. Based on the poetry of Mansaka, it turned out that some of their works have commonality in terms of theme. There are five emerging themes; Simple Life and Livelihood Of Mansaka Tribe, Importance of Education and Values, Contentment in Life, Unrequited Love, and Being Proud of One's Culture.

In Table 2, the Mansaka literary pieces entitled, "Ing Kinabuwi Dag Bukid" which has an Life in Farm and "Aw Yagagani Ipan Sang Umay Na Manabang" which has an English translation of When Harvesting a Milled Rice Grains both have a theme of English Translation of Simple Life And Livelihood Of Mansaka Tribe which present the simple life and livelihood of Mansaka tribe in their abode. The literary pieces entitled, "Unaa Ing Katigam" which has an English Translation of Seek First Erudition, "Lungkosaw Yakatapos Dakaw Sang Pag – Uskwela?" which has an English translation of I've Thought You're Educated and "Iman-Imanan Nang Ina Kasang Ama" which has an English translation of What did Your Father and Mother Thought? have a theme of Importance Of Education And Values which presents the highest regard of Mansaka tribe towards education while living with principled values. The literary pieces entitled, "Madyaw na Kaguna" which has an English Translation of Life at Its Simply Best and "Kang Magbabaya Syasarig Nami" which has an English translation of To God all We Entrust both have a theme of Contentment in Life which presents the thanksgiving gratitude of Mansaka tribe in their so called Supreme God for a simple and happy life. The literary pieces entitled, "Saad na way katapusan" which has an English Translation of The promise of forever and "Yang saad na wa katuman" which has an English translation of The Un-

kept Promise both have a theme of Unrequited Love which presents a hopeful young man lover. The literary pieces entitled, "Pyaggsaya na Tribo" which has an English Translation of Proud Lumad and "Bidi" which has an English translation of Little Mansaka Girl both have a theme of Being Proud to One's Culture which presents Mansaka delight in their culture.

Moreover, it was revealed on during the interview and analysis of Mansaka poems that their usual themes discuss on their way of living, culture, tradition and education. And as one of the respondents made mentioned that thru their poetry they are expressing their thanksgiving to their Supreme God whom they called as "Magbabaya". With that, studying on their themes we can observe on the peculiarity and distinctiveness of Mansaka poems.

### **Participants**

The participants of my study were the Mansaka of Maragusan. As depicted in Table 1, there are 14 Mansaka who are respondents in this study; seven for the focus group discussion and seven for the in-depth interview; and of the 14 of them, six were males and eight females. They were all Mansaka.

**Focus Group.** There were seven key informants in this study, four women and four men who are living in the Municipality of Maragusan. Following the principle of confidentiality, each participant for the focus group discussion was assigned a pseudonym during the conduct of the interview as suggested by Bernal (2014), which assignment was made according to their unique physical characteristics and attitudes shown during the interview sessions .

**Key Informants.** In like manner, the seven participants for the IDI were assigned a pseudonym: They were Joy, Cherry, Velvet, Gutsy, Bubbly, Serious and Amicable. Having a joyful and enthusiastic aura, the participant was named Joy, while the name Cherry was given to the participant who had a cheery- colored cheek that every time she smiled, it caught my attention.





**Table 2. Literary Themes as feature of Mansaka Poems**

Themes	Main Mansaka Poems	English Translation
<b>Simple Life And Livelihood Of Mansaka Tribe</b>	<p><b>Ing kinabuwi Dag Bukid</b></p> <p>Palakawon pa yagwakat da, minang pyagabalibali ing daliyog, Ing masagub ng tubig, magalubok sang umay, managawli sang kadlang, wakag aw kamote Manubong sang baboy aw manok, magabalin sang carabao, kanding asta ing baka          Ing maga daro sang basakan, maniyan aw maysan          Tigpananom sang abaka antod mangagot, ing magapawa sang manabang</p> <p>Managkas sang bula sang kagulangan aw ing magakarga sang abot          Ing mangayso dag bukid tig akbas, maglabon nang tangsangawlaw, usaay manginalaw sang kadaygan.</p> <p>Pido agada way kyakatagtagaan sang baya na uso. Padiyo nang internet adon na uso sang tibuok kalibutan          Ampan way kyakatagtagaan nang taga mambukid tungod sang kulang nang katigam aw kalayo nang banwa.</p>	<p><b>Life in Farm</b></p> <p>Dawn yet already awaken, seems like a flexible rattan-working diligently          To fetch for a pail of water, grind a wheat, harvest a cassava, taro and sweet potatoes          Feed the pig and chicken, pasture a carabao, goat and cow          And plow in the fields; crop, peanuts and corn          Producers of fiber and wheat and wait until its harvest time</p> <p>Get rattan in timberland and load for goods          A child goes to farm to weed grasses          However, life remains in the farm, capable of all farm-skills</p> <p>Yet, modernized knowledge they have none          Just as a worldwide internet, remains unknown to them          Thus, living in a far- flung area equates to unaccustomed and antiquity.</p>

In Table 2.1, the Mansaka poetries entitled, “Aw Yaganini Ipan Sang Umay na Manabang” which has an English translation of When Harvesting a Milled Rice grains and “Ing Kinabuhi Dag Bukid” which has an English translation of Life in Farm both have a tone of a farmer who reminds on the do’s and don’ts in farm and expresses the simplicity of life in farm. The Mansaka’s poetries entitled, “Unaa Ing Katigam” which has an English translation of Seek First Erudition, “Lungkosaw Yakatapos Dakaw Sang Pag- uskwela? Which has an English translation of I’ve Thought You’re Educated? and “Iman- Imanan Nang Ina Kasang Ama” which has an English translation What Did Your Mother and Father Thought? have a tone of an elder who gives advice to younger generation. The Mansaka poetries entitled, “Madyaw na

Kaguna” which has an English translation of Life at Its Simply Best and “Kapag Uma Sang Madyaw Na Kabutang” which has an English translation of Happy and Contented Life have a tone of a lumad who enjoys the simplicity of life. The Mansaka poetries entitled, “Saad na Way Katapusan” which has an English translation of The Promise of Forever and “Yang saad na Wa Katuman” which has an English translation of The Un- kept Promise have a tone of a young man lover who is patiently waiting for his love. The Mansaka’s poetries entitled, “Pyaggsaya na Tribo” which has an English translation of Proud Lumad and “Bidi” which has an English translation of Little Mansaka Girl have a tone of a proud Mansaka who has big dreams in life.

**Table 2.1 Tones of Mansaka Poems**

Themes	Main Mansaka Poems		Tone
	Main Mansaka Poems	English Translation	
<b>Simple Life And Livelihood Of Mansaka Tribe</b>	<ul style="list-style-type: none"> <li>Aw Yagagani Ipan Sang Umay Na Manabang</li> <li>Ing Kinabuwi Dag Bukid</li> </ul>	<ul style="list-style-type: none"> <li>When Harvesting a Milled Rice Grains</li> <li>Life in Farm</li> </ul>	Farmer who reminds on the do’s and don’ts in farm and expresses the simplicity of life in farm.
<b>Importance of Education</b>	<ul style="list-style-type: none"> <li>Unaa ing Katigam</li> <li>Lungkosaw Yakatapos Dakaw Sang Pag- uskwela</li> <li>Iman- imanan Nang Inang Kasang Amang?</li> </ul>	<ul style="list-style-type: none"> <li>Seek First Erudition</li> <li>I’ve Thought Your Educated?</li> <li>What Did Your Father and Mother Taught?</li> </ul>	An elder who gives advice to younger generation.



**Table 2.2. Rhyme Scheme of Mansaka Poems**

<b>Main Mansaka Poems</b>	<b>English Translation</b>
<p><b>Madyaw na Kaguna</b></p> <p>Mga kaoy, langgam, sapa dig butay            Mga madyaw na tanawunon            Kabtangan na yaampingan            Na yagaatag ng karinaw ng pag –uyay.</p>	<p><b>Life at Its Simply Best</b></p> <p>a Trees, birds, rivers in the forest            b The sight to behold at its best            c The treasures we care- not the least            a Giving us serene and calming rest</p>
<p><b>Pyaggsaya na Tribo</b></p> <p>Lumad na tyatawag            Netibo na tyatawag            Magunawa sang kadaygan            Waray labot nami kamayo.</p> <p>Yang kinabuwi na madyaw            Gikan galisud, anasapiyan            Magunawa sang kadaygan            Yagatagaynop na di matapos.</p>	<p><b>Proud Lumad</b></p> <p>a Indigent, as we are called            a Native, as we are hailed            b But just like any other            c We do not even bother.</p> <p>d A life like fairy tale            b Rags to richness, they tell            b And just like any other            e Dreaming won't be over.</p>
<p><b>Saad Na Way Katapusan</b></p> <p>Kay bubay, wain da kaw?            Wain da kaw aduon?            Nana yang kyakadaman mo?            Uri da, ako gatagad kanmo.</p>	<p><b>The Promise of Forever</b></p> <p>a Oh girl, where are you now?            b Where are you now heading?            c Whatever that makes you mad            c Please be home real soon.</p>
<p><b>Kapag Uma Sang Madyaw na Kabutang</b></p> <p>Madaig na abot, pyaga- ampo            Madaig na grasya, pyapangayo            Mga kinaaglan, mga problema            Kang Magbabaya syasarig nami.</p>	<p><b>Happy and Contented Life</b></p> <p>a Bountiful harvest, we pray            a More blessings, we ask            b All our needs and worries            c To God all we entrust.</p>
<p><b>Kabubayan ng Maragusan</b></p> <p>Alaga sining mapandan            Panday sing kabayamban, dili kabigbigan            Tyibu katigaman da, misaray mangayso            Tyibu katigaman da kaubayansining Agusan            Biya sining kapugungan</p>	<p><b>Women of Maragusan</b></p> <p>a Women in this place            a Know weaving and everything            b Youngsters do as well            a Women of Maragusan</p>
<p><b>Imanan Nang Ina Kasang Ama</b></p> <p>Ing magutang sang sapi aw ting exam da.            Aw yadugay makabayad pyagpanglalaongan da            Bisan yaguno na kalidanan yaantos ng supudta            Bisan way pyagauskelaan nang ama kasang ina</p>	<p><b>What Did Your Father and Mother Thought?</b></p> <p>a And lend money for your tuition fee            a Yet, if it's done delayed you murmur on them            Facing all the struggles just to give a full support            Diplomas they don't have but they strive enough</p>



In Table 2.2, the Mansaka literary piece entitled “Madyaw na Kaguna” which has an English translation of Life at Its Simply Best has an “a-b-c-a” rhyme scheme which means that “a” is the rhyme for lines 1 and 4. The Mansaka literary piece entitled “Pyaggsaya na Tribo” which has an English translation of Proud Lumad has an “a-a-b-c” and “d-b-b-e” rhyme schemes which means that “a” is the rhyme for lines 1 and 2 on the first stanza and “b” for lines 2 and 3 on the second stanza. The Mansaka literary piece entitled “Saad na Way Katapusan” which has an English translation of The Promise of Forever has an “a-b-c-c” rhyme scheme which means that “c” is the rhyme for lines 3 and 4. The Mansaka literary piece entitled “Kapag Uma Sang Madyaw na Kabutang” which has an English translation of Happy and Contented Life has an “a-a-b-c” rhyme scheme which means that “a” is the rhyme for lines 1 and 2. The Mansaka literary piece entitled “Kabubayan ng Maragusan” which has an English translation of The Women of Maragusan has an “a-a-b-a-a” rhyme scheme which means that “a” is the rhyme for lines 1, 2, 4 and 5. The Mansaka literary piece entitled “Iman- imanan Nang Ina Kasang Ama?” which has an English translation of What Your Father and Mother Thought? has an “a-a-a-a” rhyme scheme which means that “a” is the rhyme for all four lines.

**Research Question No. 2: How do the Mansaka tribes preserve their poetry?**

In order to answer this research questions, in-depth interview are conducted with the informants. Several sub-

questions were asked to elicit their concept as regards to the Mansaka’s tradition. They were also asked regarding the preservation of their practices.

The major themes and core of ideas for research question number 2 was presented in Table 3. Participants had their responses towards their own experiences. From the answers of the participants, three major themes emerged: Oral traditions of the elders, Educating the young generations and Highlighted during rituals. Table 4 shows the themes and core ideas on the insights of of the Mansaka tribes on the appreciation of their poetry.

**Oral traditions of the elders**

It was revealed during the in-depth interview that oral tradition is still practiced among the Mansaka elders. It was expressed by one of the informants that they present their poetry during small gatherings. She also added that in this way children are being taught.

She stated that:

*“pagpasa pinaagi sang pagbatok sa mangaiso, pyapakita ng Mangkatadong yang kanilan panag tawag.” (FGD-001)*

(We make use of oral tradition and presentation during our small gatherings in teaching the young generations of our poetry)

**Table 3. Themes and Core Ideas on How Mansaka tribes preserve their Poetry**

Essential Themes	Core Ideas
<b>Oral traditions of the elders</b>	<ul style="list-style-type: none"> <li>As one of the elders, I teach our poetry through presentation or orally.</li> <li>We make use of oral tradition and presentation during our small gatherings in teaching the young generations of our poetry.</li> <li>Children are taught through oral practices.</li> <li>The elders taught us of our tradition and unique features as Mansaka orally.</li> <li>I believe that our elders taught us through an oral lore.</li> </ul>
<b>Educating the young generations</b>	<ul style="list-style-type: none"> <li>I am educating the children on how important is to appreciate and preserve our poetry.</li> <li>We gather the children and let them witness as we chant our poetry.</li> <li>The children are taught through letting them listen to elders as they chant our poetry.</li> <li>I tried learning it so that I could teach my IP students as well as our younger family members.</li> <li>As an educator, I am explaining encouraging the young generations to embrace our culture with pride.</li> </ul>

**Research Question No.3: What are the insights of the Mansaka tribes on the appreciation of their poetry?**

The major themes and core of ideas for research question number 3 was presented in Table 4. Participants had their responses towards their own experiences. From the answers of the participants, five major themes emerged: Technology has a positive effect, Academic Integration, Support from the Government, Roles of young generations in preservation and Poetry showcasing tradition. Table shows the themes and core ideas on the insights of Mansaka in their poetry appreciation.

Technology has a positive impact

It was revealed in the interview that the advent of technology has brought many changes in the preservation and appreciation of their poetry. Velvet (pseudonym) pointed out that technology has brought a positive effect in their poetry.

She highlighted that:

*“ayon epekto, madyaw da kay nangani mapa ambit sang pagbaraw, adoon pwede da sang technology. Aw pananglit da ibutang sang kompyuter yang kanami dawot para magamit pa sang umaabot.” (IDI-003)*

(Technology has a very positive effect, since before our poetry is just being kept orally yet now it could be uploaded in websites. Thus, through this there will be



wider access and it will ensure dependable cultural preservation.)

**Table 4. Themes and core ideas on the insights of Mansaka tribes on the appreciation of their poetry.**

<i>Essential Themes</i>	<i>Core Ideas</i>
<b>Technology has a positive impact</b>	<ul style="list-style-type: none"> <li>• With technology, we can share and perform our poetry towards them.</li> <li>• Technology helps a lot especially in recording our poetry.</li> <li>• Technology helps a lot in restoring our poetry through voice recordings.</li> <li>• Technology can help in the preservation of the literary pieces for it can be encoded, recorded and restored.</li> <li>• Through technology, sharing our poetry becomes easier and more accessible.</li> </ul>
<b>Academic Integration</b>  <b>Support from the Government</b>	<ul style="list-style-type: none"> <li>• The Department of Education can include in the curriculum the integration of IP classes.</li> <li>• It must be taught in schools where IP students are one of the enrolees.</li> <li>• Possibly, it may be integrated in curriculum since its part of the widest culture in Maragusan.</li> <li>• It must be taught in academe and students must be encouraged to write their own poetry.</li> <li>• And during school activities, performing Mansaka poetry must be given a regard.</li> <li>• During the Municipal IP Day Celebration, Mansaka students must perform the poetry.</li> <li>• The Local Government may initiate seminars that will encourage my tribesmen to continually nurture and cherish our poetry.</li> <li>• Organize symposium and write shop and invite resource speakers that are IP professionals as motivators.</li> <li>• The municipality could organize a contest where students will be motivated to join since there will be prizes.</li> </ul>

**Chapter Summary**

From the results of the study based from the responses of both the in-depth interview informants and the FGD participants, the following concerns were identified:

Firstly, the findings revealed the different literary devices of Mansaka poetry such as themes, tones, rhyme schemes, similes, hyperboles, repetitions, assonances, consonances and alliterations.

Secondly, Mansaka tribesmen preserve their poetry through oral traditions of the elders, educating the younger generations and highlighting their rituals.

Thirdly, the different insights of Mansaka which include the positive impact of technology, academic integration, support from the Government, role of young generations in preservation and poetry showcasing tradition.

**IV. DISCUSSION AND CONCLUSION**

This chapter dealt with the discussions and conclusion of the major themes and analysis, which are drawn from the research questions. The goal of this phenomenological is to underscore and expound the findings on the analysis of Mansaka poetry in Maragusan, Compostela Valley. Also, it aimed to go deeper into the core of the culture to bring the insights of the participants to the surface and to find out what constructs may be derived from the findings.

It is in this context that I took the cue from Lester (1999), and utilized qualitative research methods in my investigation. I personally accentuated that phenomenological qualitative approach is ideal at bringing the literary features of Mansaka poems while considering their historical background, culture and tradition. It is also in line with the said framework that the 14 participants, seven for the in-depth interview and seven for the focus group discussion, were invited to share their thoughts in orchestrated poetry oral practices, narrated their perceptions and insights and reflected on those thoughts and insights. The participants in this study were all Mansaka in the Municipality of Maragusan, Compostela Valley. These participants were knowledgeable both in their practices and their language.

**The Literary features of Mansaka Poetry.** In identifying the literary features of Mansaka’s Poetry, I analyzed the data taken from the informants from their simulation and samples of Mansaka’s poems. These analyses were treated in different literary features: theme, tone, rhyme scheme, simile, hyperbole, repetition, assonance, consonance, and alliteration that were significant in the study. Hence, the study was just limited with these literary features. Moreover, the overall beauty and message of the poems lies in its well created theme (Serote, 2012). The following examples are the resulted themes which mostly discussed on the life, experiences and way of living of their tribe which greatly illuminates the Cultural Poetics approach, because their



historical background had played a great part in shaping not only their culture but as well as their distinct poetry.

The Mansaka literary pieces entitled, “Ing Kinabuwi Dag Bukid” which has an English Translation of Life in Farm and “Aw Yagagani Ipan Sang Umay Na Manabang” which has an English translation of When harvesting a milled rice grains both have a theme of Life in farm which present the simple life and livelihood of Mansaka tribe in their abode. The literary pieces entitled, “Unaa Ing Katigam” which has an English Translation of Seek First Erudition, “Lungkosaw Yakatapos Dakaw Sang Pag – Uskwela?” which has an English translation of I’ve thought you’re educated and “Iman- Imanan Nang Ina Kasang Ama” which has an English translation of What did your father and mother thought have a theme of Importance Of Education And Values which presents the highest regard of Mansaka tribe towards education while living with principled values. The literary pieces entitled, “Madyaw na kaguna” which has an English Translation of Life at its simply best and “Kang Magbabaya Syasarig Nami” which has an English translation of To God all we entrust both have a theme of Contentment in life which presents the thanksgiving gratitude of Mansaka tribe in their so called Supreme God for a simple and happy life. The literary pieces entitled, “Saad na Way Katapusan” which has an English Translation of The Promise of Forever and “Yang Saad na Wa Katuman” which has an English translation of The Un-kept Promise both have a theme of Unrequited Love which presents a hopeful young man lover. The literary pieces entitled, “Pyaggsaya na Tribo” which has an English Translation of Proud Lumad and “Bidi” which has an English translation of Little Mansaka Girl both have a theme of being proud to one’s culture which presents Mansaka delight in their culture.

Also, the implied attitude towards the subject of the poem is in the tone. Is it hopeful, pessimistic, dreary, worried? A poet conveys tone by combining all of the elements listed above to create a precise impression on the reader (Thompson, 2011). The following examples are the resulted tones which mostly discussed on the life, importance of education and values, love and being proud of one’s tribe.

The Mansaka poetries entitled, “Aw Yaganini Ipan Sang Umay na Manabang” which has an English translation of When harvesting a milled rice grains and “Ing kinabuhi Dag Bukid” which has an English translation of Life in Farm both have a tone of a Farmer who reminds on the do’s and don’ts in farm and expresses the simplicity of life in farm. The Mansaka poetries entitled, “Unaa Ing Katigam” which has an English translation of Seek first erudition, “Lungkosaw Yakatapos Dakaw Sang Pag- uskwela? Which has an English translation of I’ve Thought You’re Educated? and “Iman- Imanan Nang Ina Kasang Ama” which has an English translation What Did Your Mother and Father Thought? have a tone of An elder who gives advice to younger generation. The Mansaka poetries entitled, “Madyaw na Kaguna” which has an English translation of Life at Its Simply Best and “Kapag Uma Sang Madyaw na Kabutang” which has an English translation of Happy and Contented Life have a tone of A lumad who enjoys the simplicity of life. The Mansaka poetries entitled, “Saad na Way Katapusan” which has an English translation of The promise of forever and “Yang Saad na Wa Katuman” which has an English translation of The un- kept promise have a tone

of A young man lover who’s patiently waiting for his love. The Mansaka poetries entitled, “Pyaggsaya na Tribo” which has an English translation of Proud Lumad and “Bidi” which has English translation of Little Mansaka Girl have a tone of A proud Mansaka who has big dreams in life.

In addition, poets give richness to their language through shadings of sound and rhyme scheme, orchestrating the musical quality of vowel and consonants through the words they use (Sadler, 2013). The following examples are the resulted different rhyme schemes. It also showed that even before, the literary pieces of Mansaka observed different rhyming scheme.

The Mansaka literary piece entitled “Madyaw na Kaguna” which has an English translation of Life at Its Simply Best has an “a-b-c-a” rhyme scheme which means that “a” is the rhyme for lines 1 and 4. The Mansaka literary piece entitled “Pyaggsaya na Tribo” which has an English translation of Proud Lumad has an “a-a-b-c” and “d-b-b-e” rhyme schemes which means that “a” is the rhyme for lines 1 and 2 on the first stanza and “b” for lines 2 and 3 on the second stanza. The Mansaka literary piece entitled “Saad na Way Katapusan” which has an English translation of The promise of Forever has an “a-b-c-c” rhyme scheme which means that “c” is the rhyme for lines 3 and 4. The Mansaka literary piece entitled “Kapag Uma Sang Madyaw Na Kabutang” which has an English translation of Happy and Contented Life has an “a-a-b-c” rhyme scheme which means that “a” is the rhyme for lines 1 and 2. The Mansaka literary piece entitled “Kabubayan ng Maragusan” which has an English translation of The Women of Maragusan has an “a-a-b-a-a” rhyme scheme which means that “a” is the rhyme for lines 1, 2, 4 and 5. The Mansaka literary piece entitled “Unaa Ing Katigam” which has an English translation of Seek First Erudition has an “a-b-c-c” rhyme scheme which means that “c” is the rhyme for lines 3 and 4. The Mansaka literary piece entitled “Iman- imanan Nang Ina Kasang Ama?” which has an English translation of What Your Father and Mother Thought? has an “a-a-a-a” rhyme scheme which means that “a” is the rhyme for all four lines.

In like manner, a simile is a comparison between two unlike things. Similes use the words ‘like’ or ‘as.’ A simile can get the reader to look at something in a different way (Rosenthal, 2012). The following examples are the resulted similes.

The Mansaka literary piece entitled “Lungkosaw Yakatapos Dakaw Sang Pag- uskwela?” which has an English translation of I’ve Thought You’re Educated? has a simile, a kind of figure of speech, which is “ang batasan na di magkakaan nang ido” that means an attitude that is as foul as dog can’t take. The Mansaka’s literary piece entitled “Pyaggsaya na Tribo” which has an English translation of Proud Lumad has a simile, a kind of figure of speech, which is “yang kinabuwi na madyaw” that means a life like fairy tale. The Mansaka literary piece entitled “Ing kinabuwi Dag Bukid” which has an English translation of Life in Farm has a simile, a kind of figure of speech, which is “minang pyagabalibali ing daliyog” that means a person is seems a flexible rattan.

While the purpose of hyperbole is to create a larger-than-life effect and overly stress a specific point. Such sentences usually convey an action or sentiment that is



generally not practically and realistically possible or plausible but helps emphasize an emotion (Pinsky, 2010). The following examples are the resulted hyperboles.

The Mansaka literary piece entitled “Iman- imanan Nang Ina Kasang Ama” which has an English translation of What Did Your Father and Mother Thought? has a hyperbole, a kind of figure of speech, which is “yang liyog sa ina sang pagkukulo nang bukag nga na yamapuno ng lasak” that means a mother’s neck get screwed in carrying a loaded basket in a trek. The Mansaka literary piece entitled “Aw Yagagani Ipan Sang Umay Na Manabang” which has an English translation of When Harvesting a Milled Rice Grains has hyperboles, a kind of figure of speech, which are “Di magalabgabon, di magasugbo bay maanod ing indang” that means a harvester mustn’t yawn and take a bath for crop might deluge and “Ing pagkaan nang maggagani di akasaluwan bay kabutongan” that means a harvester’s food mustn’t be shared for reap might get insufficient.

In poetry, repetition is repeating words, phrases, or lines which adds more beauty and meaning (Pope, 2011). The following examples are the resulted repetitions.

The Mansaka literary piece entitled “Kamatuoran ng Kinabuwi” which has an English translation of the Reality of Life has a repetition of poetical lines which is Yang bukon amadawat na matungtong sang kinabuwi that appeared in the every first line of each stanza that means the unbearable reality of life makes me bleed to death. The Mansaka literary piece entitled “Kabubayan ng Maragusan” which has an English translation of the Women of Maragusan has a repetition of poetical lines which is Tyibu katigaman da that appeared in the 3rd and 4th lines in the first stanza. The Mansaka literary piece entitled “Pyaggsaya na Tribo” which has an English translation of the Proud Lumad has a repetition of poetical lines which is Magunawa sang kadaygan that appeared in the 3rd line of each stanza. The Mansaka literary piece entitled “Madyaw na Kaguna” which has an English translation of the Life at Its Simply Best has a repetition of poetical lines which is Yang kinabuwi that appeared in the 1st and 3rd line in the first stanza.

On the other hand, assonance is a close repetition of similar vowel sounds, usually in stressed syllables (Serote, 2012). The following examples are the resulted assonances.

The Mansaka poems entitled “Madyaw na Kaguna” which has an English translation of Life at its simply best and “Saad na Way Katapusan” which has an English translation of The Promise of Forever have assonance, recurring vowel sounds in each line of the stanza, which is vowel “a”. The Mansaka poem entitled, “Kapag Uma Sang Madyaw na Kabutang” which has an English translation of Happy and Contented Life has assonance, recurring vowel sounds in each line of the stanza, which is vowel “I” that appeared in the first two lines. The Mansaka poem entitled “Pagdatong ng Gabi aw Anlaw” which has an English translation of When Night and Day Comes has assonance; recurring vowel sounds in each line of the stanza, which is vowel “a”. The Mansaka poem entitled “Yang Saad na Wa Katuman” which has an English translation of The un- kept promise has assonance, recurring vowel sounds in each line of the stanza, which is vowel “o”. The Mansaka poems entitled “Bidi” which has an English translation of Little Mansaka Girl and “Lungkosaw Yakatapos Dakaw Sang Pag- uskwela?” which has an English translation

of I’ve Thought You’re Educated? have assonance, recurring vowel sounds in each line of the stanza, which is vowel “i”. The Mansaka poem entitled “Aw Yagagani Ipan Sang Umay na Manabang” which has an English translation of When Harvesting a Milled Rice Grains has assonance, recurring vowel sounds in each line of the stanza, which is vowel “o”. The Mansaka poem entitled “Iman-Imanan Nang Ina Kasang Ama” which has an English translation of What Your Father and Mother Thought? has assonance, recurring vowel sounds in each line of the stanza, which is vowel “a”.

While, the close repetition of identical consonant sounds before and after different vowels are called Consonances (Probyn, 2014). The following examples are the resulted consonances.

The Mansaka poem, entitled “Pagdatong ng Gabi aw Anlaw” which has an English translation of When night and day comes and “Kabubayan Ng Maragusan” which has an English translation of Women of Maragusan have a consonance, the repetition of middle or consonant sounds in neighboring words, which is letter “g”. The Mansaka poem entitled “Unaa Ing Katigam” which has an English translation of Seek First Erudition has a consonance, the repetition of middle or consonant sounds in neighboring words, which is letter “n”. The Mansaka poem entitled “Aw Yagagani Ipan Sang Umay Na Manabang” which has an English translation of When Harvesting a Milled Rice Grains and “Iman-imanan Nang Ina Kasang Ama” which has an English translation of What Your Father and Mother Thought? have a consonance, the repetition of middle or consonant sounds in neighboring words, which is letter “g”.

And lastly, alliteration is the repetition of initial consonant sounds (Sadler, 2013). The following examples are the resulted Alliterations. The Mansaka poems, entitled “Kapag Uma Sang Madyaw na Kabutang” which has an English translation of Happy and Contented Life has alliteration, the repetition of beginning consonant sounds in neighboring word in each line of the stanzas which are letters “m” and “p”. The Mansaka poem, entitled “Bidi” which has an English translation of Little Mansaka Girl has alliteration, the repetition of beginning consonant sounds in neighboring word in each line of the stanzas which is letter “y”. The Mansaka poems, entitled “Unaa Ing Katigam” which has an English translation of Seek First Erudition has alliteration, the repetition of beginning consonant sounds in neighboring word in the first two lines of the stanzas which is letter “k”. The Mansaka poems, entitled “Ing Kinabuwi Dag Bukid” which has an English translation of Life in Farm has alliteration, the repetition of beginning consonant sounds in neighboring word in each line of the stanzas which is letter “m”.

Moreover, considering the themes of Mansaka poetries, these all represented their way of living, customs and tradition. And it is an evident analysis that their historical background becomes a larger part of their text. Their poems can easily be understood if we trace it to their history hence it affirms to the Cultural Poetics Approach of Stephen Greenblatt.

**Mansaka Tribes in Preserving their Poetry.** At this point, relevant readings and propositions from different authors and specialist supported the different themes of how Mansaka tribes preserve their poetry.



Firstly, the results of this revealed that they considered Oral traditions of the elders. Oral traditions have been part in shaping and preserving their poetry. According to Ong (2010), oral traditions congregate knowledge, memories, values, and symbols generally configured in linguistic objects of non-literary or aesthetic-literary nature, objects with or without consignment in written testimonies, accomplished vocally and recognizable collectively and during consecutive generations in an anatomy built by the laws of traditionalist.

The informants also discussed during the interview that elders are still performing their oral traditions during an occasion where the tribe is being gathered. Also another informant expressed that through it, the younger generations will have be educated on the living tradition that they have. Moreover, oral lore has already been part of Mansaka culture, and concerned tribesmen believe that this practice is very significant but wanted it to put into written documents to be preserved and kept. These findings could be subject for another significant study which will discuss about the different challenges, feelings and emotions of those who perform oral traditions.

This is the second theme that emerged from the question; "How do the Mansaka tribes preserve their poetry?" It discussed the importance of educating the younger generations in the continuity of their poetry. One of the most common points expressed by the informants is that literary preservation will become more significant and easier for them through educating the younger generations. Education of indigenous children contributes to both individual and community development, as well as to participation in society in its broadest sense (Frisoli, 2016). They affirmatively believe that through nurturing the innocent minds of the younger generations, their most treasured poetry will be proliferated. For in due time, the elders will no longer have the capability in leading their tribe and it is the younger generations who will continue in promoting and preserving their cultures and traditions. They will be the peddlers in making their poetry known to all whether Mansaka or a common individual.

Additionally, Education enables indigenous children to exercise and enjoy economic, social and cultural rights, and strengthens their ability to exercise civil rights in order to influence political policy processes for improved protection of human rights. The implementation of indigenous peoples' right to education is an essential means of achieving individual empowerment and self-determination. Education is also an important means for the enjoyment, maintenance and respect of indigenous cultures, languages, traditions and traditional knowledge. It is the primary means of ensuring indigenous peoples' individual and collective development; it is a precondition for indigenous peoples' ability to realize their right to self-determination, including their right to pursue their own economic, social and cultural development (Champagne, 2013).

It was revealed in the third and last theme of the first question about the poetry preservation is the practice of performing poetry and being highlighted during rituals. They regard poetry as a vital part in their tradition, that even during marriage, it is being used by the parents of the both side to have an agreement for the soon to be couple. And they ritualize it through performing an exchange of poetical lines.

One of the informants made mentioned that their elders are performing their rituals through chanting poetry. Chanting is a manner where they can pass the culture to the succeeding generations. Olupona (2010) contends that rituals are highlighted by feasts held at important moments of the agricultural cycle, or by the spectacular rites of passage for moments of birth, initiation, and death throughout the indigenous world. These renew the links of humanity with primordial creative powers. Ritual music, songs, and chants are the great symbols of religious culture, expressing change, social and cultural reproduction over time, and the very acts of creation. Blonde (pseudonym), one of the respondents, underscored on the significance of performing poetry in their ritual for it does not only showcases their tradition but as well as the thanksgiving and worshipping to their Supreme God "Magbabaya".

**The Insights of Mansaka on their Poetry Appreciation.** At this point, relevant readings and propositions from different authors and specialist supported the different themes of how Mansaka tribesmen appreciate their poetry. It was revealed in the interview that there are positive impacts of technology in the appreciation and preservation of their poetry. Technology is an assessable and motivational way to expose students to other ideas and cultures and online literature discussions have the ability to create a sense of community and foster positive social interaction (Coffey, 2012). Whitey (pseudonym) emphasized that technology can help in the preservation of the literary pieces for it can be encoded, recorded and restored through the use of technological aids such as computers.

Additionally, Serious (pseudonym) supported the statement when he pointed that through technology, sharing their poetry becomes easier and more accessible since it will be uploaded. And it is not only the Mansaka tribesmen who will have an access but also those common individuals who concerns to know more about their culture. And significantly it will help in potentially conducting further research about their culture and tradition.

It was common responses among the informants that they encourage academic integration to highlight the appreciation of their poetry. According to Marton (2004), the cultures and knowledge of Indigenous people must be included in the curricula for indigenous children and youth at all levels of education. Their cultures have a rich reservoir of knowledge. And it must be preserved and developed for the benefit of all human kind.

For indigenous people, it is the knowledge of the interconnectedness of all that was, that is and that will be – the vast mosaic of life and spirit and land/water forms, of which we are an intricate part. It encompasses all that is known as Traditional Knowledge (Sheridan, 2011).

Additionally, Gutsy (pseudonym) emphasized that there are recognized schools with numerous indigenous students in the Department of Education that must be regarded to ensure proliferation of knowledge among them. Also it was supported by Chubby (pseudonym) that their poetry must be part of the curriculum and be performed during special school events. For them, it will make their poetry known to everyone. Moreover, I have my friends who belong in an Indigenous group at the same time teachers and all of them are concern in



integrating their poetry to the curriculum in order to share the endowment to the younger generation.

This is the third theme that emerged from the result on how Mansaka tribesmen appreciate their poetry is to strengthen the support from the Government. As expressed by the participants, the local government may initiate symposium so that the Mansaka tribesmen will have a deep appreciation and knowledge in their literary piece. And through it, they will be motivated and inspired in patronizing their unique poetry.

A strong foundation and continued support from the government can help in sustainable development and progress of Mansaka culture and tradition. Blades (2010) stated that government plays a vital role in the society most especially in leading the way for cultural preservation. Hence, providing the Mansaka tribesmen with sufficient support will pave the way in protecting and promoting their cultural heritage. Further, Rose (pseudonym) underscored that during Municipal Indigenous People's Day celebration, Mansaka students or entities may perform the poetry that they make to showcase the richness of their culture and tradition. And it was supported by Cherry (pseudonym) where she expressed that, initiated seminars of the government may encourage them to continually nurture and cherish their poetry.

It was revealed during the interview that the younger generations are the peddlers in promoting the Mansaka poetry, hence educating the younger ones of their roles is a salient way to ensure the literary preservation. Bishop (2011) said that youth participation, a key-factor for the protection and safeguarding of heritage hence, it is therefore necessary to increase the financing for research, education, and to create a favorable framework for young people to become involved for their rights, to regain hope and to revive the feeling of belonging to a community. Thus will they become responsible social actors and innovators, in a spirit of openness and dialogue. The participants underscored that the younger generations are the peddlers in promoting the Mansaka poetry, hence educating them of their roles is a salient way to ensure the literary preservation. Cherry (pseudonym) believed that one of their roles is to feel and understand that being a "lumad" is not a liability but a privilege and being part in the preservation is something which they must be proud of.

Additionally, Youth comprise 18% of the world population. They represent a significant segment of the community. And they are in the position to act as potent agents of positive social change that will yield greater for generations to come (Foley, 2010). Serious (pseudonym) mentioned that it is timely to teach the young generation of their poetry so they will continue to use it and put into writing. Primarily, if it will be documented it may ensure its preservation until the years to come. And the last theme that emerged from the question; "What are the insights of Mansaka tribes on the appreciation of their poetry?" is the importance of poetry in showcasing tradition. One of the participants made mentioned that their poems are usually sung and it implies prayers and thanksgiving to the one whom they worshipped, the "Magbabaya" as they call him. Velvet (pseudonym) cited that in our marriage culture, poetry plays a vital role wherein the parents of the both side will exchange their thoughts and concerns in making a mutual understanding for the soon to be couple.

And as I had made mentioned on the rationale of my study that every individual expresses emotions through reflecting in certain poetry where one's tradition and culture is being highlighted. And throughout the history, poetry is said to be an ancient art. It is as timeless as the fore generations were. The way a line of poetry is structured can be considered a kind of garment that shapes and clothes the thought within it. Mansaka tribesmen are known in expressing their entrenched emotions and cherished experiences through writing poetry (Bascom, 2012). Moreover, most of the respondents agreed that they do love chanting their poetry to express their contentment and happiness in life. Amicable (pseudonym) added that their poems are the reflection of simplicity and contentment of living and a humble way of expressing themselves; also it depicts their culture and unique tradition as a tribe.

### Implication in Language Teaching

The result of the analyses of literary features (themes, tones, rhyme schemes, similes, hyperboles, repetitions, assonances, consonances and alliterations) could be used for teaching on the influence of language in social context. It could also be helpful in explaining how subgroups in society could develop their own language to communicate with each other. This will also be helpful on explaining how language is affected by situations and how words could be associated to form new words.

Also, the results would also concretize the structure of Mansaka language. This will also motivate other learning institutions in the country to study Mansaka tribe that developed in their locality. They could use the classifications made on each linguistic feature as a reference in conducting their own study.

Further, it will resonate on teaching field where teachers handling Philippine literature will have an aid in efficiently educating the learners on Mansaka poetry.

### Concluding Remarks

Conceptualizing my thesis' title was indeed one of the toughest encounters that I ever had. I found myself in a vacuum. I had difficulty in looking for an interesting study that would define my journey in this endeavor. Then, I happened to converse with these students of mine. I have observed that they use different language. Yet, I have notified that it is Mansaka.

In my most honest way, before I was exposed in this kind of individual I had presumptions on their way of living. Some of them were uneducated and grimy. And I have to admit that it was a faulty thought, because when I reached college my conceptions towards them changed when we were already studying their culture and tradition. And with God's grace, fate has its own way of teaching me about these dynamic people. Reminiscing three years ago, I applied as teacher I at the Department of Education- Compostela Valley Division, and was assigned at New Albay National High School one of the secondary schools in the Municipality of Maragusan. Originally, I am a resident of the Municipality of Mawab, yet something pushes me to grab the opportunity in teaching to a barrio school. Majority of my students are Mansaka. And I firmly believed that this opportunity paved way for me to intensify my awareness about their culture,





traditions, and literature as well. Witnessing how they were mistreated and bullied around by some other students had even pushed me to study their culture. Because I wanted to speak out their voice, even though I am not a Mansaka but I always believe that without them we can never be who we are today. With that, I took time to study some of their words and expressions so I could interact with them using their language. And I would admit, it was not easy, there are words that I could mispronounce and mumble which made them laugh at me. Yet, I was patient in knowing and learning their language. I was inspired of their distinctiveness and peculiarity. And that time on, I was already convinced to study about the culture and poetry of Mansaka. Their colorful and lively customs and traditions are what make it even interesting.

However, one sad fact still remains, some of them still experienced discrimination even as of this time. I hope this study will bring forth awareness and respect among Mansaka tribe. And may this be a beginning where their poetry will be documented and preserved. I am hoping that this study would leave a mark on those who will read and consider this masterpiece as worthy of sincerity.

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# EXPLORING THE ROLES OF SCHOOL HEADS IN THE IMPLEMENTATION OF READING PROGRAMS

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## ABSTRACT

*The study dealt with the exploration of the roles of school heads in the implementation of reading programs of the Department of Education. A qualitative research design was used to analyze the data gathered from the interview of school heads and school reading coordinators. Purposive sampling was used to identify the respondents.*

*This study sought to answer the perception of school heads in their roles in the implementation of DepEd reading programs as well as their teacher's perceptions in their roles. The findings from the research provide principals and division leaders with a collection of best practices on strategies for the implementation of a successful reading program.*

*It revealed that in the implementation, principals gave regular technical assistance, mentoring, and coaching to provide resources. They lead in the planning and implementation of reading activities empowering and motivating teachers, partners, and learners. Implications for school leaders and principals are shared as well as suggestions for future research.*

**KEYWORDS:** *Comprehension, Implementation, Reading, Perception*

## INTRODUCTION

Relative to “Every Child a Reader Program (ECARP)” that addresses the thrust of DepED to make every Filipino child a reader at his/her own level, SDO Laguna is intensifying its advocacy for reading considering the existing problems in poor reading comprehension of learners in different grade levels.

As challenged also by the National Initiative Bawat Bata Bumabasa -3Bs( DM No. 173 s. 2019) to align its priorities toward promoting the culture of reading as a critical step in closing achievement gaps is in its pursuit, the significant roles of the school heads is being considered to prepare learners with strategic reading skills to make them independent readers.

Despite the implementation of reading programs in school, problems with reading comprehension are still prevalent based on the local assessment done instead of Phil. IRI was not used during the pandemic period. Instead of the Administration of the Revised Philippine Informal Reading Inventory, released on March 26, 2018, DO 14, 2.2018, SDO Laguna contextualized pre and post-reading materials to sustain the need to assess the reading level considering the learning platform being used by learners.

Assessing the impact of the pandemic on learners who may not have sharpened their reading skills as well as expected is crucial. In early literacy, the development of skills needed to transition from learning to read to reading is foundational to later academic success. Observations suggest that many children have lost momentum on such fundamental skills.

Based from findings of Goddard (2017) which shows that effective instructional leadership can provide foundation to support teachers’ work in ways that reinforce

managerial principle practices which promote growth of academic achievement

The current reading status of students needs focused attention for timely and flexible reading activities that would help them to improve their reading abilities. According to Merto (2018), technical assistance monitoring and evaluation by the school heads, education program supervisors, and other education experts are considered necessary to strengthen the implementation of the reading program.

Through instructional supervision focused on reading, the schools are urged to improve the school climate of moving towards the literacy of the learners through the help of the teachers.

The idea is supported by Dhuey and Smith (2014) who stated that a principal influences learners' performance by offering a positive teaching-learning environment and culture. It is the role of the school head to lead the teachers in facilitating the teaching-learning process (Fullan 2018). Their roles in the implementation of the reading programs are significant. Thus, the extent of their involvement and engagement in its implementation is a contributive factor for the success of the reading programs.

Research demonstrated that the leadership style of the school principal strongly influenced various elements of the school environment, including teacher and staff attitudes, student learning, and academics. (Shatzer et al., 2014)

The target of improving the schools from varied perspectives needs to focus on systems thinking headed by school principals. Leithwood (2017)

Based on the findings of Townsend (2017) that school heads are more confident in leading the school after successful programs and shared support among teachers which lead to improved teaching-learning process and



engagement of learners on activities and improvement in academic achievement.

According to Karadag (2017), the common adaption and valuable effect among leadership styles were found in distributive and transformational leadership. Rasinski and Young (2017) reported that educators often struggle to provide the most effective instructional strategies to improve reading achievement.

In this study, the selected active reading program implementers elementary principals, and school reading coordinators were interviewed. Sets of questions dealt with their perceptions of the principal's role in the implementation of a reading program. Ideas and perceptions came out from the point of view of the principal and the perspective of the teacher as to the principal's role.

These phenological interviews was the primary method of data collection. Findings will be fused and sorted into concepts, classifications, and ideas.

The result of the study could be of help in planning. If the result shows positive effects of using the initiated project on students' performance in reading, continued use of these materials should be utilized. Otherwise, modification for further improvement of activities itself should be considered.

### Objectives Of Study

The purpose of this study is to identify the perceptions of selected elementary principals and teachers regarding the principal's roles in the effective implementation of DepEd reading programs in SDO Laguna.

1. Identify the perceptions of elementary principals regarding their roles in the effective implementation of DepEd reading programs and projects
2. Identify the teachers' perceptions of the roles of the elementary principals in the effective implementation of DepEd reading programs and projects

An interview instrument and guide was designed by the researcher. Data were gathered from principals and teachers regarding the role of the principal in the implementation of a reading program using the interview protocol developed by the researcher. This is based on the thoughts of Creswell (2013) who stated that qualitative research measures consist of organizing the data, conducting an initial read-through of the archive, transcribing and arranging ideas, indicating the data, and developing an analysis of them.

There were a series of virtual interviews via zoom that occurred which provided a transcription through the recorded videos. The researcher transcribed the answers of the respondents and coded them to come up with common themes. The data were organized, managed, and analyzed with consideration of data privacy.

### Research Design

This research used a qualitative, phenomenological design through online interviews letting the perspectives of the research respondents be evaluated. It is used to explore the perceptions of the elementary principal's role in a reading program through the lens of the principal and in which the lived experiences of principals and teachers were examined. This approach's purpose was to describe, interpret, and understand multiple perspectives.

As Merriam and Tisdell (2016), emphasized to get a real sense of the meaning of experiences, the main method of collecting data is a phenomenological interview. The study discovered perceptions of principals and teachers concerning their roles in the implementation of the reading program. Principals and school reading teacher coordinators were interviewed. These phenological interviews were the main method of collecting information.

### Participants/Respondents

Purposive sampling was used in the study. The respondents were the school heads and school reading coordinators

Therefore, purposive sampling as considered also by Rai (2015) was used considering that it is a procedure of non-probability sampling wherein decisions concerning the respondents were based upon a range of criteria which may include knowledge of the research study, or competence and commitment to cooperate with the research.

### Instrumentation

The interview instrument procedure was conceptualized by the researcher through the Zoom meeting link, the series of interviews were recorded which transliterated the communications. Findings were carefully and systematically linked, coded, and sorted into subjects, classifications, and perceptions.

According to Alshenqeeti, H. (2014). research on using interviews has long been an expanding area of study, it might be accompanied by some conceptual problems that need to be constantly considered.

### Data Collection Procedure

As the interviews were done, the researcher used the qualitative results to recognize similarities and differences between the principals' and teachers' perspectives. The answers let the researcher make assumptions about the role of the principal in the implementation of a reading program. Transcribing, translating, and coding were done as the data were gathered after the online interview through the zoom link.

The answers for each question were based on the occurrences of connections and disparities between the perceptions of principals and teachers. The clustered themes were put into categories and arranged to simplify key outcomes.

To decide the existing number of respondents, purposive sampling was done on top implementers of effective implementation of reading programs in elementary schools. The researcher virtually sent a request letter to the school principal and the guardians of the target learners. After the consent, the set of reading materials was sent to them weekly to be distributed at the time the teachers released and retrieved the SLMs until the post-test was given.

### Ethical Consideration

The researcher was granted permission to conduct the study upon approval of District Supervisors and a copy of the approved letter was sent to the principal and teacher respondents for their participation as invited respondents.



The objectives of the study were well-cited to the respondents. The respondents were also assured that all data collected would be utilized for the research intention and that anonymity and confidentiality of the data would highly be observed.

It was assured that data privacy will be observed as they share their answers to the interview questions. Their free time for the conduct of the interview was also given consideration.

### Data Analysis

After the series of interviews with respondents which were done individually through the Zoom link, the data were transcribed, translated, inventoried, organized, coded into themes, and stored. A careful analysis of the data gathered from the questions was done.

There were identifying segments of the data explicitly stated from responses. The researcher wrote different observations, comments, and notes through carefully done coded transcripts.

The goals of the researcher were “to arrive at structural descriptions” of the experiences and to identify the “underlying and precipitating factors” that account for what was experienced so conclusions could be drawn based on the research questions (Merriam & Tisdell, 2016, p. 227).

Thematic analysis is the data analysis technique utilized by the researcher. Thematic analysis as discussed by Braun & Clarke (2014) provides accessible and systematic procedures for generating codes and themes from qualitative data

### Results and Discussion

The results and analysis of the data are presented below.

#### Findings 1

Three themes emanated on the roles of school heads in the background of implementation of the reading program as perceived by the school heads and teachers such as Administer Reading Programs as mandated by the DepEd, Assessment of Reading Performance and Supervise the Reading Program through the support of internal and external stakeholders

Elementary school principals use the Every Child A Reader Program, Bawat Bata Bumabasa -3Bs Initiative and Division-initiated reading programs. They used the result of the division-based reading test as the basis for activity implementation. The implementation is a joint effort of the school and its external stakeholders.

The school principals have background knowledge on the implementation of their reading program wherein they used the national reading program and division reading program as the basis for their reading activities. They considered the different contributions of teachers, parents, and educational partners that served as an advantage for the promotion of the reading program since then. They used the results of reading tests as their basis in working out the implementation of the reading programs.

#### Findings 2

There were four themes identified in the roles of school heads as perceived by the school heads and teachers on professional development opportunities and support given

to teachers related to the reading programs namely: Empower Teachers through Significant Training, Facilitate Coaching and Mentoring, Encourage Research-Based solutions and Support Continuous Improvement (CI) activities.

The school heads provided development opportunities and support to teachers related to the reading program by conducting School Learning Cells (SLAC). Some of the topics were cascaded from district and division training in reading. They led the planning and implementation of SLAC and even invite resource speakers that can share significant learning to teachers in terms of reading programs. The teachers were also encouraged to attend reading training at a higher level.

Coaching and mentoring were done regularly by the school heads with the help of master teachers to sustain the learning of all teachers in reading.

Some of them also encouraged teachers to be engaged in teachers in research about reading to solve the issues and concerns of learners in reading. The school heads also lead them on conducting continuous improvement programs (CI) and pursue on graduate degrees.

#### Findings 3

There were three themes identified in the roles of school heads in the learners' motivation in engagement to the reading program as perceived by the school heads and teachers. These are the following: Motivate Learners to Engagement of Reading Activities, Provide Learning Resources for Reading, Provide Recognition to Learners' Achievement, and Allot time to give instructional assistance

The school heads guide the teachers in providing enjoyable reading activities among learners. There is also support for the provision of reading materials for them. Rewards and recognition were also initiated to be given to learners.

The school heads guided the teachers in providing enjoyable reading activities using the available learning platforms. They delivered reading materials to learners in case they do not have internet access or gadgets for the online class. There was the participation of the school heads in “Kumustahan “ among learners and parents. There are rewards and recognitions given to learners with the guidance and materials support of the school heads. (Scholastic, 2019) Having more books for students to choose from increases the likelihood a student will self-select a book interesting to them to read independently.

#### Findings 4

Four themes were identified in the roles of school heads in the program's implementation sustainability as perceived by the school heads and teachers. There are the themes: Reach out to the learners, Provide learning resources, Maintain community partnerships, and Monitor and evaluate the progress of learners' reading capabilities.

The school heads gave technical assistance, close monitoring on the distribution of reading materials, provide learning resources, and allocate budgets for the printing of reading materials from MOOE. They also seek partnerships with stakeholders for support to the reading engagement of learners in the pandemic times.



They conducted monitoring and evaluation using the generic tool for different programs based from their School Implementation Plan (SIP).

### Findings 5

There were four themes identified on the responses of school heads and teachers as to the roles of school heads in the success of the reading program. There are the following themes: Lead planner, Lead Implementer, Lead for Technical Assistance and Resource generation Through Partnership and School Fund

The overall success of the reading programs was described as outstanding, very good, rated 9 out 10, and as a product of the partnership of the school, parents, and other stakeholders. The principal played the roles of the planner, technical lead, coach, facilitator, resource provider, and evaluator in reaching the success of the program implementation.

The principals played a vital role in planning the implementation of reading activities. The school and other stakeholders took their part in planning for more sustainable implementation considering the limitations because of the alert levels. Technical assistance and instructional supervision were done regularly to support the teachers and learners in their endeavor in the reading journey.

The needs in the instruction were supported by the school heads leading to securing the resource generation. Instructional materials were outsourced from the donations of external stakeholders and MOOE.

### Conclusion, Limitations, and Recommendations

The following conclusions are formed based on the findings:

The purpose of this study was to identify the perceptions of the principal regarding their role in the implementation reading program, as well as the teachers' perceptions of the role of the principal in the implementation, and continuation of their reading program. Based on the data gathered from the interview, there is a resemblance in the responses of the school heads and their school reading coordinator.

The study findings suggested that the principal plays the role of technical assistance provider, and coach, mentor and resource provider. Principals motivate students' engagement in reading programs by leading the teachers in providing enjoyable and worthy reading activities and reading materials even majority of them are in the modular platform of learning.

The principals build a good partnership with different stakeholders to sustain the implementation of the reading programs not only for resource generation but also as a partner in the delivery of reading sessions to learners.

The principals monitored the implementation of reading programs using their localized form and generic monitoring tools for all reading programs. No specific tool for evaluation was available crafted specifically for their monitoring of the implementation of the reading program.

This study included a small sample size due to COVID-19 restrictions. The respondents were only the top awardees of the Best Implementer of Reading Program of SDO Laguna.

Considering the findings of this study, it would be beneficial to conduct research in the following areas:

1. The researcher could increase the sample size to include more school heads and teachers because COVID-19's impact limited the sample size in this study.
2. The researcher could consider interviewing principals and teachers from non-awardee schools to help clarify the principals' role in the implementation of the reading program.
3. This research could be beneficial to school heads in improving their implementation of the reading program through benchmarking with the best practices cited in the findings.
4. It is also beneficial to Education Program Supervisors and District Supervisors in guiding other school heads on how they can have effective and sustainable reading programs.

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### APPENDIX

<b>1. Roles of school head in the background of school's reading program as perceived by school heads and teachers</b>			
<b>Condensed Meaning Unit</b>	<b>Codes</b>	<b>Category</b>	<b>Theme</b>
Use the ECARP, Bawat Bata Bumabasa 3 Bs Initiative as basis of reading program	Adaptation reading activities ECARP Bawat Bata Bumabasa 3Bs	National Reading Program as Basis	Administer Reading Programs as mandated by the DepEd
Use of assessment as the basis of activities	Phil. IRI, reading assessment	Tools for assessment	Assessment of Reading Performance
Supervision implementation of the reading program	Planning, analysis, support	Adaption and support of reading activities	Supervise the reading program through the support of internal and external stakeholders.
<b>2. Roles of the school heads in professional development opportunities and support were given to teachers related to the reading program as perceived by school heads and teachers</b>			
Conduct of Training to teachers	School Learning Action Cell SLAC INSET in district ,DO	Provide professional development and training	Empower teachers through significant trainings
Conduct of session online	Give coaching and mentoring	Professional communication	Facilitate coaching and mentoring
Conduct of research	Action research	Encouragement for teachers to conduct research	Encourage Research-Based solutions
Participation to Continuous Improvement ( CI )	Encourage Continuous Improvement ( CI )activities and presentation	Constant Improvement through CI participation	Support Continuous Improvement (CI) Activities
<b>3. Roles of school heads to motivate the learners to engage in the reading program as perceived by school heads and teachers</b>			
Encourage teachers to provide enjoyable reading activities	Storytelling, games ,Kwensayahan	Reading activities	Motivate Learners to Engagement of reading activities
Provide reading materials	Localized reading materials ,teacher-made reading materials, printed reading materials	Reading materials	Provide learning resources for reading
Assist in giving rewards to learners	Certificates Kind words	Appreciation	Provide Recognition to Learners' Achievement
Visit online class	Online sessions, google classrooms, group chats	Observation, supervision	Allot time to give instructional assistance
<b>4. Roles of school heads in the program implementation sustainability as perceived by school heads and teachers</b>			
Plan and implement activities to reach out to learners despite the pandemic	Pasabay Delivery through barangays caravan	Delivery of reading materials	Reach out the learners
Give learning materials	Give bond papers, ink, printers	Give the needs for the printing of reading materials	Provide learning resources
Tap stakeholders for support	Partnerships Communicate with LGUs	Adopt a School	Maintain community partnerships
Observation, <i>Kumustahan</i>	Visitation to online class Regular <i>Kumustahan</i> with learners and parents	Checking of Learners' status	Monitor and evaluate the progress of learners' reading capabilities
<b>5. Roles of school heads in the overall success of the reading program as perceived by school heads and teachers.</b>			
Coordinate the reading activities	Meeting <i>Kumustahan</i>	Online and F and F meetings	Lead Planner
Execute implementation of reading activities	Observation	Instructional Supervision	Lead Implementer
Guiding the teachers throughout the activities	Mentoring Coaching	Technical Assistance	Lead for Technical Assistance
Tap external stakeholders for resource support	Solicitation MOOE	Budgetary Inclusion of resources needed	Resource generation Through Partnership and School Fund



# A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION EDUCATION COMMUNICATION ON KNOWLEDGE REGARDING POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS AT SELECTED SCHOOLS OF MANDI GOBINDGARH, PUNJAB

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## ABSTRACT

*A quantitative approach using pre-experimental one group pre-test post-test design. 60 adolescent girls were selected using non probability convenient sampling adolescent girls at selected Schools of Mandi Gobindgarh, Punjab. Structured multiple choice questionnaire on demographic variables and knowledge regarding polycystic ovarian syndrome, are used for data collection. Information Education and Communication on Polycystic Ovarian Syndrome was given for 45 minutes on the second day. After the Information Education and Communication, Majority of 86.7% of the adolescent girls had adequate knowledge, moderate Knowledge observed on the 11.7% from adolescent girls and only 1.7% had inadequate knowledge. Analysis used paired 't' test found significant value at  $p < 0.05$  level.*

## INTRODUCTION

Polycystic Ovarian Syndrome is the most common endocrine disorder among women between the age of 18-44. It affects approximately 2% to 20% of this age group. It is one the leading endocrine disease which affects one in 15 women in worldwide. The main aim of the present study was to evaluate the effectiveness of Information Education and Communication regarding Polycystic Ovarian Syndrome among adolescent girls.

## OBJECTIVES OF STUDY

- To assess the pre-interventional knowledge regarding polycystic ovarian syndrome among adolescent girls in experimental and control group.
- To intervene the Information Education and Communication regarding Polycystic Ovarian Syndrome to experimental group.
- To assess the post-interventional knowledge regarding polycystic ovarian syndrome among adolescent girls in experimental and control group.
- To compare the pre-interventional and post-interventional knowledge regarding polycystic ovarian syndrome among adolescent girls in experimental and control group.
- To find out the association between pre-interventional and post-interventional knowledge regarding polycystic ovarian syndrome among adolescent girls in experimental and control group with the selected socio demographic variables.

## METHODOLOGY

A quantitative research approach and pre-test and post-test design was adopted for the Adolescent girls of Govt. Sen Sec, School Mandi Gobindgarh, Punjab, who had fulfilled the inclusion criteria. Non-probability convenient sampling technique was used to allocate samples. structured multiple choice questionnaire was suitable to make extensive enquiries. The reliability of tool towards effectiveness of information education communication on knowledge regarding polycystic ovarian syndrome was tested by test-retest method. Ethical permission granted from Institutional ethical committee. Data was analysed and interpreted using descriptive and inferential statistics. Prior commencing to data collection the investigator had obtained formal permission to collect the data.

## FINDINGS OF THE STUDY

### Findings related to sample characteristics of adolescent girls in selected Govt School

About marital status, majority of adolescent girls 48 (80%) were unmarried, 12(20%) married, according to religion, majority of adolescent girls 32 (53%) were Hindu and 12 (20%) were Muslim and 16(27%) were Christian. Regarding types of family, majority of adolescent girls 17 (29%) were joint family, with regards to educational status, all these adolescent girls 60(100%) are Graduate. Regarding dietary pattern, majority of adolescent girls 21(35%) are vegetarian, 39(65%) are non-vegetarian. With regards to menstrual cycle, majority of adolescent girls 41(68%) had regular cycle, In accordance of BMI, majority of adolescent girls 27(45%) were 18-21, 11(18%), with regards to junk food, majority of



adolescent girls like junk foods 51(85%), Regarding amount of water intake per day, Majority of adolescent girls 6(10%) drink 500-1000ml, With regards to presence of any menstrual disorders of adolescent girls 29(48%) has menstrual disorder,

With regards to frequency of intake of non-vegetarian foods, majority of adolescent girls 29(48%) had weekly one, 20(34%) had weekly twice, 11(18%) had more than twice in a week.

**SECTION I: DATA ON ASSESSMENT OF LEVEL OF KNOWLEDGE AMONG ADOLESCENT GIRLS**

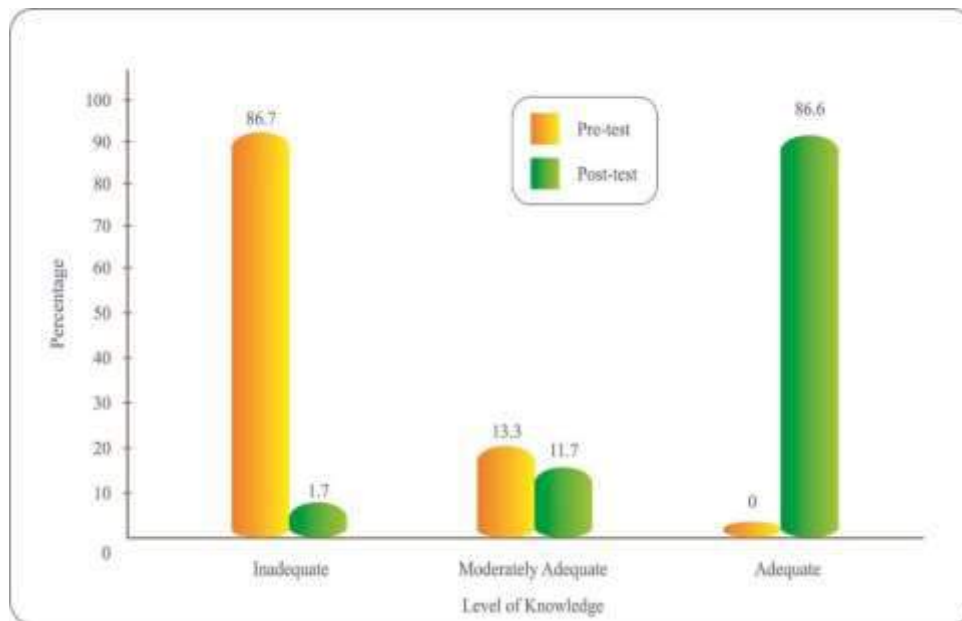
**Table 1**Frequency and Percentage Distribution of Pre-Test and Post-Test Level of knowledge among Adolescent Girls

N=60

Sr. No.	Level of knowledge	Pre-test		Post-test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	Inadequate knowledge	52	86.6	1	1.7
2	Moderate knowledge	8	13.3	7	11.7
3	Adequate knowledge	0	0	52	86.7
Total		60	100	60	100

Table 1: reveals that among 60 adolescent girls, most of them 52 (86.7%) had inadequate knowledge, 8 (13.3%) had moderate knowledge, no one had adequate knowledge in

pre-test and 52(86.7%) had adequate knowledge, 7(11.7%) had moderate knowledge, 1(1.7%) had inadequate knowledge in post-test.



**Fig: 1** Pre test and Post test level of knowledge among adolescent girls





**SECTION II: DATA ON EFFECTIVENESS OF INFORMATIONEDCATION COMMUNICATION ON LEVEL OF KNOWLEDGE REGARDING POLYCYSTIC OVARIAN SYNDROME AMONG ADOLESCENT GIRLS**

**Table 2 Mean, Standard Deviation, Mean Difference and ‘t’ Value of Pre-Test and Post-TestLevel of Knowledge among Adolescent Girls.**

N=60					
Sr. No.	Level of Knowledge	Mean	Standard Deviation	Mean Difference	‘t’ Value
1	Pre-test	6.8	3.4	14.8	56.5*
2	Post-test	21.3	3		

\* - Significant at P < 0.05 level

Table: 2 reveals that among adolescent girls, the mean pre-test score was 6.8 with the standard deviation 3.4 and post-test score was 21.3 with the standard deviation 3. The mean

difference was 14.8. The obtained ‘t’ value 56.5 was statistically significant at p<0.05 level.

**SECTION III: DATA ON ASSOCIATION BETWEEN THE POST-TEST LEVEL OF KNOWLEDE AMONG ADOLESCENT GIRLS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES**

**Table 3 Frequency, Percentage Distribution and  $\chi^2$  Value of Post-test Level of knowledgeAmong Adolescent girls with their Selected Demographic Variables**

Sr. No.	Demographic Variables	Level of knowledge						$\chi^2$ Value
		Inadequate		Moderate		Adequate		
		f	%	f	%	f	%	
1	<b>Age (in years)</b>							1.55 <sup>ns</sup> Df-4
	a) 18-19	1	2	3	5	32	53	
	b) 20-21	0	0	4	7	20	33	
	c) Above 20	0	0	0	0	0	0	
2	<b>Marital status</b>							4.6 <sup>ns</sup> Df-6
	a) Unmarried	0	0	5	9	43	71	
	b) Married	1	2	2	3	9	15	
	c) widow	0	0	0	0	0	0	
	d) Divorced	0	0	0	0	0	0	
3	<b>Religion</b>							8.25 <sup>ns</sup> Df-6
	a) Hindu	1	2	7	12	24	40	
	b) Christian	0	0	0	0	12	20	
	c) Muslim	0	0	0	0	16	26	
	d) Others	0	0	0	0	0	0	
4	<b>Types of family</b>							4.16 <sup>ns</sup> Df-2
	a) Joint family		0	3	5	14	23	
	b) Nuclear family		2	4	7	38	63	
5	<b>Dietary pattern</b>							1.68 <sup>ns</sup> Df-4
	a) Vegetarian	1	2	2	3	18	30	
	b) Non vegetarian	0	0	0	0	0	0	
	c) Mixed	0	0	5	9	34	56	
6	<b>Menstrual cycle</b>							3.26 <sup>ns</sup> Df-2
	a) Regular cycle	0	0	6	10	35	58	
	B) Irregular cycle	1	2	1	2	17	28	
7	<b>BMI</b>							16.72 <sup>*</sup> Df-6
	a) 18-21	0	0	1	2	26	43	
	b) 22-25	0	0	3	5	8	13	
	c) 26-29	0	0	2	3	10	16	
	d) Above 30	1	2	1	2	8	14	



8	<b>Number of Children</b>							
	a) One	0	0	4	7	2	3	20.5* Df-4
	b) Two	0	0	0	0	0	0	
c) None	1	2	3	5	50	83		
9	<b>Do you have any associated disease</b>							
	a) Yes	1	2	6	10	14	23	10.6* Df-2
	b) No	0	0	1	2	38	63	
10	<b>Do you like junk food</b>							
	a) Yes	0	0	4	7	47	78	9.83* Df-2
	b) No	1	2	3	5	5	8	
11	<b>Amount of water intake per day</b>							
	a) 500 – 1000ml	0	0	2	3	4	7	6.54** Df-4
	b) 1000 – 2000ml	1	2	2	4	38	63	
c) > 2000ml	0	0	3	5	10	16		
12	<b>Do you have any menstrual disorder</b>							
	a) Yes	0	0	6	10	23	38	5.18** Df-2
	b) No	1	2	1	2	29	48	

Sr. No	Demographic Variables	Level of Knowledge						X2 Value
		Inadequate		Moderate		Adequate		
		F	%	F	%	F	%	
13	<b>Source of Information</b>							
	a) Health Person	1	2	2	3	9	15	9.08** Df-8
	b) Parents	0	0	0	0	0	0	
	c) Teacher	0	0	2	3	3	5	
	d) Mass media	0	0	2	4	30	50	
e) No information	0	0	1	2	10	16		
14	<b>How many times you have taken non vegetarian</b>							
	a) Weekly once	0	0	3	5	26	43	2.8** Df-4
	b) Weekly twice	1	2	3	5	16	27	
c) > twice in a week	0	0	1	2	10	16		

## DISCUSSION

The first objective of the study was to assess the pre-test and post-test level of knowledge regarding polycystic ovarian syndrome among adolescent girls.

The study findings revealed that among 60 adolescent girls 8(13.3%) had moderate knowledge, 52 (86.7%) had inadequate knowledge, and no one had adequate knowledge in pre-test and 52 (86.7%) had adequate knowledge, 7(11.7%) had moderate knowledge and 1(1.7%) had inadequate knowledge in post-test. It was inferred that, most of the adolescent had moderate and inadequate knowledge in pre-test and most of the had adequate knowledge in post-test.

The second objective was to assess the effectiveness of Information Education Communication on level of knowledge regarding polycystic ovarian syndrome among adolescent girls.

The study findings revealed that among adolescent girls, the mean pre-test score was 6.8 with the standard deviation 3.4 and post-test score was 21.3 with the standard deviation 3. The mean difference was 14.8. The obtained 't' value 56.5 was statistically significant at  $p < 0.05$  level.

The third objective was to determine the association between the post-test level of knowledge among adolescent girls with their selected demographic variables.

The present study revealed that there is a significant association between post-test level of knowledge among adolescent girls their BMI, No of children, Presence of associated disorder, Intake of junk food. Hence the stated hypothesis (H3) was accepted.

## LIMITATIONS

- The study was limited to 6 weeks.
- The study was limited to students in Desh Bhagat University School of Nursing.

## CONCLUSION

This chapter dealt with the statistical analysis and interpretation of data. The objectives of the study were attained through various statistical method and interpretation. The sample characteristics were dealt with frequency and percentage. The study concluded that there was lack of knowledge of teenage girls regarding PCOS. The administration of information booklet may have helped the teenage girls to understand more about PCOS.



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# A REVIEW ON FUNCTIONS OF VOLUNTARY ORGANIZATIONS IN PUBLIC DOMAIN

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## ABSTRACT

After India gained its independence from British rule, a number of non-governmental organizations (NGOs), community-based organizations (CBOs), mother organizations, and sister organizations were established across the country. Although these groups all performed the same tasks, the points at which they diverged were referred to as originations. The idea behind knowing organizations is that there are just two sorts of divisions in organizations: voluntary and non-voluntary organizations. knowing this concept is the first step in understanding organizations. The volunteer organizations contribute, but they don't take any of the money they receive back. On the other hand, the involuntary organizations do take the money they receive and use it to conduct their own profitable operations.

The Latin word "voluntas," which meaning "will" or "freedom," is where the name "voluntarism" derives from. A well-known British political scientist named Harold Laski defined "freedom of association" as the established legal right of every person to band together for the advancement of their own interests. The right "to form association" is granted to Indian citizens by Article 19(1)(c) of the Indian Constitution. The right to freedom of association is widely regarded as one of the most important human liberties.

The current research paper is based on a thorough examination of the literature. Number of studies from journals and oral information from primary and secondary information regarding the voluntary originations were reviewed by the researcher. The study reveals that the voluntary organizations were starts ups and were closed within a year because due lack of professional knowledge, some organization were having good infrastructure but no funding and some organizations are commercial.

**KEY WORDS:** Voluntary organizations, functions, public opinions.

## 1) INTRODUCTION

NGOs have been around in one form or another for centuries, but in the 1980s and 1990s, they achieved a position of high significance in the field of international development and saw a significant increase in their membership. It is challenging to determine with absolute certainty how, there are many nongovernmental organizations (NGOs), but statistics that are either comprehensive or accurate are not kept. If you include both formal and informal organizations in your calculations, some estimates put the total number of organizations at one million. However, the number of registered non-governmental organizations that get international help is probably closer to "a few hundred thousand." According to an estimate provided by the United Nations, there were around 35,000 major NGOs operating in the year 2000. There is also a lack of precise data regarding the amount of resources that non-governmental organizations (NGOs) get via aid, contracts, and private donations. It was estimated that NGOs were responsible for nearly one third of overall ODA, or approximately 23 billion United States dollars' worth of assistance money, in 2004. (Riddell, 2007: 53). According to statistics that were mentioned in an article published by Newsweek on September 5, 2005, the percentage of official development assistance that was delivered by non-governmental organizations (NGOs) had climbed from 4.6% in 1995 to 13% in 2004, and the total aid amount had increased from \$59 to \$78.6 billion during the

same time period. There is a confusing range of labels used in the non-governmental organization field. Although the term "NGO" is used quite frequently, there are also many other phrases that are used that overlap with it. Some of these terms include "nonprofit," "voluntary," and "civil society" organizations. The usage of various words does not, in most circumstances, represent descriptive or analytical rigor; rather, it is a consequence of the various cultures and histories in which thinking about NGOs has arisen. This is the case in a number of distinct situations. For instance, the term "nonprofit organization" is used quite frequently in the United States of America. This is because the market predominates in this country, and citizen organizations are rewarded with financial benefits if they can demonstrate that they are not commercial, profit-making companies and that they operate for the public good. Following a long tradition of volunteering and voluntary work that has been shaped by Christian principles and the creation of charity law, the terms "voluntary organization" or "charity" are often used in the United Kingdom. This follows a long tradition of volunteering and voluntary work. But in the United Kingdom, charitable status is contingent on an NGO's being "non-political." As a result, while Oxfam is granted the formal status of a registered charity (with the associated tax benefits), Amnesty International is not. This is due to the fact that the Charity Commission considers Amnesty International's work to be more directly "political." While



Oxfam's mission is humanitarian in nature, Amnesty International Lastly, the abbreviation "NGO" is most commonly used in reference to the work done in international or "developing" countries. This is because the term "non-governmental organization" was first used in 1945 during the formation of the United Nations, when it was given to certain international non-state organizations that were given consultative status in UN activities. Its origins can be traced back to this time period.

## 2) OBJECTIVES

To review on the eligibility of a group of people about forming firms and organizations, to know the history of NGOs startups, review about the functions of organizations to know the negative and positive concerns after forming the organizations, due to lack of professional people in the organizations.

## 3) METHOD

Systemic review of literature and narrative search.

## 4) FINDINGS

After rigorous search on review of literature I found many a. The followings books and papers described about the organizations.

### 1. Origin of Voluntary Organisations.

in the late 1980s, non-governmental organizations took on a far more active role in development work than they had in the past. First found and subsequently lauded by the international donor community, non-governmental organizations (NGOs) have been hailed for their ability to bring novel approaches to long-standing development challenges caused by ineffective government to aid provided by the government and inefficient development programs.

As a result of later efforts to liberalize economies and "roll back" the state as part of structural adjustment measures, non-governmental organisations (NGOs) began to be seen as an alternative to public sector service delivery that was more cost-effective. In the years following the end of the Cold War, the international donor community began to push for a new policy agenda known as "good governance." This agenda posited that positive development outcomes would result from a harmonious interaction between the state, the market, and the non-profit sector. Within the context of this paradigm, non-governmental organizations (NGOs) came to be regarded as constituting a growing "civil society."

New ideas about participation, empowerment, and gender, as well as a variety of people-centered approaches to poverty reduction work, came about as a direct result of the increased attention that was being paid to non-governmental organizations (NGOs) at this time. This new attention also brought large quantities of aid resources and efforts to build the capacity of NGOs to scale up their work. Ultimately, this led to important changes in the thinking and practice of mainstream development. For instance, Cernea (1988: 8) proposed that non-governmental organisations (NGOs) exemplified "a philosophy that recognizes the centrality of

people in development policies," and that this, in addition to a number of other variables, gave NGOs "comparative advantages" over the government. However, an excessive amount of pressure was placed on non-governmental organisations (NGOs), which led to some people viewing them as a "quick fix" for issues pertaining to development. At the end of the 1990s, as evidence began to suggest that non-governmental organisations (NGOs) had only partially lived up to these unreasonably high expectations, this led to a reaction against NGOs, which led to a backlash against NGOs. A global change also took place among development donors towards new ways of engaging with the governments of poor countries, employing mechanisms such as "budget support" and "sector-wide approaches." This shift was accompanied by a globalization of the development aid industry. (Lewis, 2007).

But nongovernmental organisations have been around for a lot longer than their recent rise and withdrawal would suggest. The development sector didn't even exist when many of the world's most well-known nongovernmental organisations were founded. In 1919, in response to the devastation wrought by the First World War, Eglantyne Jebb established the Save the Children Fund (SCF). Oxfam, which was founded in 1942 and was first named as the Oxford Committee against the Famine, was created in order to provide aid to those who were suffering from starvation as a result of the Greek Civil War. After the end of World War II in 1946, CARE began its work by shipping food packages from the United States to Europe.

### 2. NGOs History in India

The historical setting and significance Phase preceding independence Even though organisations known as NGOs can look like a relatively recent development in the India, a number of its tasks, activities, and functions have historically been carried out by a range of local entities in the country. Non-state endeavors and initiatives to establish institutions of socio-economic security by the people for themselves have a long and illustrious history, as shown by the continual testimony provided by history. The state did not serve as a point of reference for these activities; the conventional method of coordinating self-help and charitable giving was fundamentally sociological in nature, not statist. It wasn't until the contemporary state had an increasingly dominant role in society that phrases like "voluntary" and "non-governmental" sectors were commonplace. These terms are used to characterize the limited number of activities for social welfare and economic growth that are carried out within of society rather than by the state itself.

During the time of the colonial encounter, there was a discernible transition that took place in the manner in which societal activities were organized. On the one hand, para-state organizations, which were primarily made up of Christian churches, began to intervene in the social and religious lives of the indigenous population by means of education, health care, social welfare, and other forms of change. These pursuits frequently enjoyed the support and protection of the colonial state during that time period.



On the other side, during the nineteenth and early twentieth centuries, a great number of indigenous organisations that were dedicated to social and religious reform emerged as a form of anti-colonial resistance. These organisations were active during the time period. As a result of this change, a number of different castes have taken on the new responsibility of providing welfare for their members. They organized associations with the intention of providing for the members of those associations in areas such as education, health care, and other aspects of welfare.

The colonial Indian state adopted the Registration of Societies statute in 1860, first for the Bombay Presidency, with the intention of controlling and monitoring the activities of new organisations of this kind. This statute was initially for the Bombay Presidency. In India, the concept of self-help and charity may be traced back to the establishment of voluntary groups during the country's colonial era. As a result of their association with social reform activities, which were in turn tied to anti-colonial resistance organizations, they also acquired a political dimension: the colonial state became a frame of reference for defining the extent of their operations as well as their legal status. The concept of voluntary work began to be defined as activities that were not carried out by the state or the government. The actions of the most significant religious and social reform movements were aimed at making demands on the state to pass new social legislation for the purpose of implementing the reforms those movements desired to disseminate.

Raja Ram Mohan Roy (1772-1833), who founded the Brahma Samaj, was a vocal opponent of child marriage and the sati system, while also advocating for widow marriage. Ishwar Chandra Vidyasagar (1820-91) was a social reformer who advocated for the education of women and the marriage of widows. His campaign began in 1820. K.C. Sen (1838-1984) was an advocate for the elimination of the purdah system, marriage between people of different castes, and marriage for widows. Swami Dayanand Sarawasti, the man who established the Arya Samaj, was against child marriage, worshipping of idols, and discrimination based on caste. Mhatma Phule (1827-1888) worked for the abolition of the practice of untouchability as well as for the improvement of the conditions of the oppressed castes, which are now referred to as the Scheduled Castes. His entire life, which spanned from 1858 till 1962, Maharishi Karve (1858-1962) was committed to the teaching and rehabilitation of widows. As a result of these religious and social reform movements, the traditional parallelism that existed between the state and society was replaced by an interaction directly between the two.

At the turn of the twentieth century, Gandhiji emerged on the political scene in India, marking the occurrence of the second major shift in the paradigm of organized volunteer labour that had been established throughout the nineteenth century. Gandhiji's goal was to reawaken the constructive spirit that existed within society and utilize it to draw upon the inborn resources that the people possessed. Instead of treating the

native population as the raw material of reform, which, in essence, meant westernization or, at worst, collaboration with the colonial regime, the Gandhian movement focused on reorganizing people's own resources for goals of material and spiritual well-being that they were enabled to set for themselves. This was in contrast to treating the native population as the raw material of reform, which would have meant either westernization or collaboration with the colonial regime. As time went on, a network of organisations was established as a component of this movement. These organisations cover a wide range of topics, including khadi and village industries, education, health, agriculture, dairying, and animal husbandry, and they frequently operate in opposition to the policies of the state. Several organisations for women, Harijans, tribals, and the rural poor in general came into existence. The operations of these organisations were informed by an approach that did not separate politics from social work or issues of material well-being from the spiritual concerns of their members.

### 3. Origination programs and functions.

It is absolutely necessary to have a robust civil society present in order for a democratic state to operate effectively. Now, let's get into a more in-depth discussion on the function of civil society:

#### 3.1) Policy Advocacy.

CSOs are taking part in policy discussions with the government in order to address issues relating to the alleviation of poverty and the empowerment of marginalized groups. These organisations not only assist the government in formulating the policies that will be implemented in these areas, but also in the execution of those policies, as well as in monitoring and reviewing those policies. The non-governmental organisations known as "Save the Children India" is an organization that is dedicated to protecting the rights of children.

#### 3.2) Protection Role.

The Association for the Protection of Democratic Rights helps provide legal assistance to individuals who do not have access to legal courts. In most cases, these kinds of CSOs make it possible for residents to receive legal assistance and safeguard them from oppressive attitudes. The Idea Behind and Function of a Civil Society.

#### 3.3) The Encouragement of Openness and Honesty.

The RTI Act of 2005 and the Lokpal and Lokayukta Act of 2013 were both made possible thanks to the work of CSOs.

#### 3.4) The Rallying of the Citizens and the Available Resources.

These organisations get communities involved in development projects by getting them involved in the planning and design of those projects themselves. This makes it easier for the government to roll back some of its policies, particularly those that are unfavorable to the general populace. They have utilized the resources of the community to carry out projects such as the construction of community infrastructure, homes,



and restrooms, as well as the provision of fundamental utilities such as water, electricity, etc.

### 3.5) As an Active Partner in Development.

Non-Governmental Organizations (NGOs) Such as 'Asha' And 'Pratham' Are Actively Involved in Providing Education to Children in Rural Areas and Slums in The Country in Order to Promote National Development. People living in rural and remote locations can receive medical care through non-governmental organisations (NGOs) like the Rural Health Care Foundation.

### 4. Problems Faced by the Organisations.

The following is a discussion of the primary challenges that CSOs encounter in their line of work:

#### 4.1. Organizations that are part of civil society do not have sufficient financial resources

The vast majority of CSOs do not have sufficient funding to be able to carry out their job due to the fact that the people that they assist do not have the financial means to pay. As a result, they are reliant on the provision of financial resources by the government, non-governmental organizations, and international institutions. The problem of financial inadequacy among CSOs is only getting worse as a result of recent cuts in foreign financing, which have occurred simultaneously.

#### 4.2 An insufficient number of professionally qualified and educated workers

There is a critical lack of professionally qualified and educated workers in the voluntary sector. The vast majority of the workforce lacks the necessary qualifications and experience.

A deterrent in the sense of acting as an obstacle, inadequate remuneration can prevent the hiring of talented workers. Additionally, persons who are professionally qualified and trained have a propensity and an inclination to work in high profile cities and offices as opposed to working in a location that is backward and underdeveloped.

#### 4.3 Concerns Regarding Accountability.

CSOs are plagued by a number of problems, one of which is an accountability problem inside their own operations and methods of work. It is determined that accountability and openness, particularly in things pertaining to finances, are missing. There have been increasing reports of these organisations misusing the money that they have been given. The Honorable Supreme Court of India issued an order for an audit of approximately 30 lakhs nongovernmental organisations (NGOs) in January of 2017. This step was taken in the context of the non-governmental organisations (NGOs)' failure to provide an account of the expenditures made using the funds they had been given.<sup>11</sup>

#### 4.4 Interaction Between the Government and Civil Society.

The collaboration of civil society organisations (CSOs) and the government has contributed to the effective delivery of a variety of welfare and development activities. CSOs have also been successful in engaging with the government in the process of establishing various policies at the national level.

However, this interface between the CSOs and the government appears to be obscured by an oppressive attitude on the part of governmental officials, bureaucratization, and lethargy, which has led to a gap in the interaction between the two.

### 5. CONCLUSION

Though all voluntary organisations are performing their duties well at public domain but The organisations have been struggling with problems like insufficient funding, uneducated and unskilled staff, a lack of accountability, and conflict with the government, which eventually results in a highly sporadic achievement of established goals. getting these problems can be solved by providing a forum for discussion and conversation between organisations and the government, by developing skills and capacity through various programs, and by offering social and performance audits of the organisations. The voluntary organisations are most important because they reach the people where government could not reach their and provide welfare programs and no society exists without the these organisations at present.

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# COMPLEX ULTRASOUND IN THE DIAGNOSIS OF UNDERLYING DISEASES OF THE CERVIX

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## SUMMARY

*The article discusses the possibilities of transvaginal ultrasound in the diagnosis of underlying diseases of the cervix. Among all benign processes of the cervix in women of reproductive age, more than 90% are non-tumor diseases. Timely diagnosis and treatment of patients with comorbidities is important for the prevention of cervical cancer.*

**KEY WORDS:** *colposcopy, transvaginal ultrasound, cervical diagnostics.*

## RELEVANCE

Timely diagnosis and treatment of patients with comorbidities is important for the prevention of cervical cancer. Most underlying or non-neoplastic diseases of the cervix usually occur in women of reproductive age. Underlying cervical diseases include mild cervical dysplasia (CIN I), endocervical hyperplasia, endometriosis, and polyps, which are more common in women of reproductive age [1, 2].

FN Nwachokor and GC Forae analyzed 176 cervical biopsies, of which 56.3% of cervical lesions were benign and 43.7% were malignant. Among all benign processes of the cervix, 92.9% are non-tumor diseases. The results of studies have shown that screening of the cervix with subsequent histological examination is an important step in the early diagnosis of precancerous and malignant lesions of the cervix [3].

S. Vijayakumar et al. (2021) conducted a retrospective analysis of clinical and laboratory studies of 164 women with a mean age of  $46.07 \pm 8.17$  years. In <sup>2/3</sup> of the examined during the examination, the normal state of the cervix was recorded. Twenty-seven women had squamous metaplasia, 6 had low-grade squamous intraepithelial lesions (LSIL) and well-differentiated squamous cell lesions (HSIL), and 1 was diagnosed with malignancy. Excessive bleeding has been reported in women with low squamous intraepithelial injury. According to microscopic studies, only flat metaplasia ( $p < 0.001$ ) and dysplasia ( $p < 0.001$ ) were reliably corrected for definitive diagnoses such as LSIL, HSIL [4].

Human papillomaviruses and *herpes simplex viruses* are common causative agents of viral cervicitis, which are closely associated with preinvasive intraepithelial neoplasia of the cervix and cervical cancer [5]. Adequate screening of the cervix followed by histological verification are important tools

in the diagnosis of non-neoplastic lesions to improve the early detection of precancerous lesions [1].

Endometriosis significantly affects the quality of life of women. Its most characteristic symptoms are: dysmenorrhea, pelvic pain, dyspareunia, changes in urination and intestinal changes, psychological and social disorders [6]. The ultrasound picture of deep endometriosis is characterized by hypoechoic thickening or the presence of formations with regular or irregular contours located in the retrocervical region or in the space of Douglas [7].

In some cases, endometriosis not only penetrates the cervix, but also interrupts the serosa. Such situations are often reported in the case of deep foci of endometriosis found in the retrouterine, retrocervical and Douglas spaces, penetrating the wall of the vaginal fornix [8, 9]. Due to its simplicity and accuracy, transvaginal ultrasound is the method of primary examination of women with suspected endometriosis [10].

It is assumed that endocervical glandular hyperplasia is a harbinger of a group of mucinous adenocarcinomas with a gastric phenotype independent of a high-risk human papillomavirus infection. A study by SY Liao et al. (2013) showed that there are different molecular mechanisms of carcinogenesis leading to normal glandular lesions compared to lobular endocervical glandular hyperplasia associated with adenocarcinoma *in situ* or gastric phenotype [10].

## TARGET

To evaluate the possibilities of transvaginal ultrasound in the diagnosis of underlying diseases of the cervix.

## MATERIAL AND METHODS

A retrospective analysis of the results of transvaginal ultrasound of the cervix was carried out in 83 women of reproductive age (19–45 years), in whom the histological examination of curettage materials revealed background



pathological processes of the cervix. Among them, endometriosis of the cervix was established in 39, endocervical hyperplasia was established in 31, and CIN I was established in 13. In 25 (30.1%) cases, the age of the patients varied within 19-25 years, in 45 (54.2%) - at 26-35 years old, at 13 (15.7%) - 36-45 years old. Transvaginal echography was performed on Philips HD-7 and HD-11 devices. The comparison group consisted of 37 healthy women of reproductive age.

The significance of discrepancies in the mean values was assessed by the method of Fisher's angular transformation and by Student's t-test.

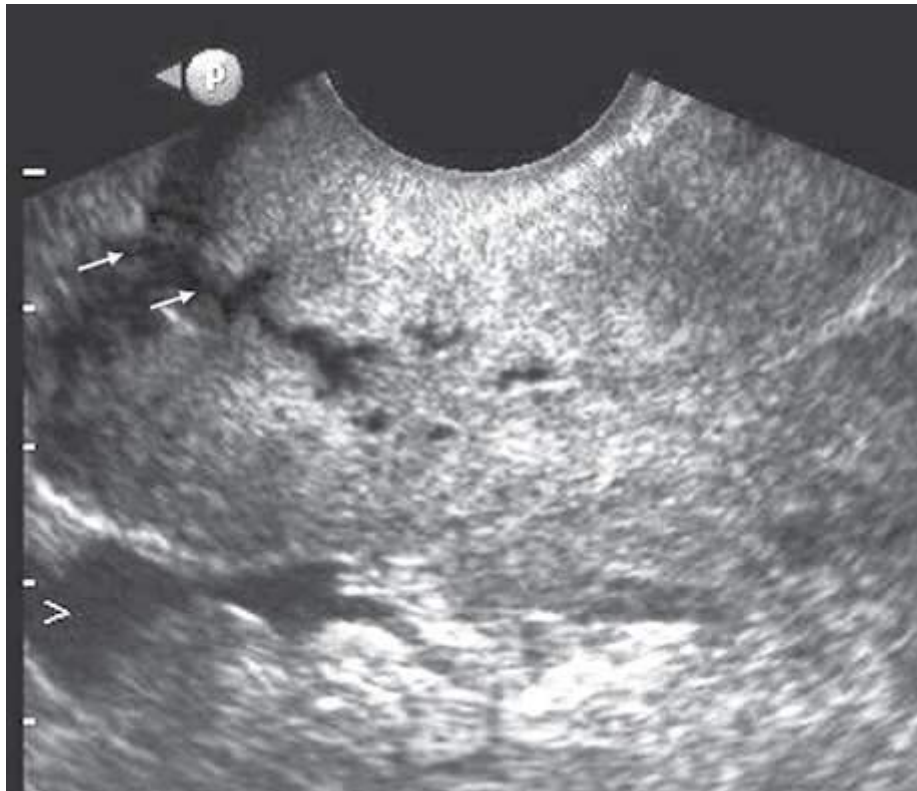
## RESULTS

Deep slit-like hypoechoic inclusions were reported only in patients with CIN I - in 84.6% of cases. In the diagnosis of

CIN I, the sensitivity of transvaginal echography was 81.8%, specificity 50.0%, and accuracy 76.9%. The heterogeneous structure of the cervical stroma was most often observed in the group of patients with cervical endometriosis (87.2%), followed by CIN I (46.2%) ( $p < 0.01$ ). Subectocervical cysts with a thin suspension were much more common ( $p < 0.001$ ) in patients with cervical endometriosis (69.2%) than in other groups. The average value of cervical M-echo in patients with glandular hyperplasia was 8.4 mm, with adenomatous hyperplasia - 11.7 mm ( $p < 0.001$ ), in the comparison group - 5.7 mm. Small rounded endocervical cysts ( $< 2.0$  mm) were recorded much more often ( $p < 0.05$ ) in adenomatous hyperplasia (59.6%). Moderate endocervical (75%) and subendocervical vascularization (87.5%) were significantly more common ( $p < 0.05$  and  $p < 0.01$ ) in patients with adenomatous hyperplasia.



**Rice. 1** . Colposcopy. Cervical erosion with dysplasia (CIN I). Lugol's solution exposes areas of columnar epithelium against a dark brown background. Erosion + iodine-negative zone. Histological conclusion: ectopic cervical glands, with stratified squamous epithelium, mild dysplasia (CIN I)



**Rice. 2** . CIN I. In the area of the vaginal part of the cervix, deep narrow anechoic zones are visible (arrow to the left), a small local thickening of the mucous membrane in the transition zone (arrow to the right)



**Rice. 3** . Hyperplasia of the glandular endocervix. The total thickness of the endocervix leaves is 10.8 mm. The contours of the endocervix are even, the echostructure is homogeneous, hypo-, isoechoic

### CONCLUSIONS

The glandular-fibrous form of endocervix hyperplasia is characterized by cervical M-echo in the range of 8.1–10.0

mm, weak vascularization; with adenomatous hyperplasia - cervical M-echo within 10-13 mm, heterogeneous structure of the endocervix, moderate vascularization; with cervical



endometriosis - a heterogeneous structure of the stroma of the cervix due to cystic cavities with a dispersed suspension, lack of separation of the endocervix and stroma; for CIN I - deep slit-like hypoechoic inclusions on the mucous membrane of the external pharynx and the transition zone of the cervix.

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## ENGLISH CORPORA MAKING: HISTORICAL OVERVIEW

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### ABSTRACT

*The emergence of corpus linguistics was preceded by a centuries old period of the use corpus methods and the creation of text corpora. In connection with the non-electronic form of storage of these corpora, as well as non-automatic methods of data processing, a special period in the history of corpus linguistics called pre-electronic can be distinguished. With the invention and widespread use of computers, a new stage of development corpus linguistics begins – the created corpora differ from the old ones not only in the storage format, but also in volume. Second-generation corpora are the products of the Internet and are distinguished by their large size. The third generation corpora are large and have many technological advantages. In this period, a number of new corpora were created, with a total volume of several billion words.*

**KEY WORDS:** *corpus, concordance, pre-electronic era, computer, generation, modern, megacorporus.*

Swedish writer and linguist J.Svartvik declares that in the history of corpora making there was the first so-called “Stone Age” or pre-computer period, when corpora were created by hand on paper<sup>1</sup>. These first paper corpora were essentially concordances, that is, alphabetical lists of words in their contextual surroundings. The creation of such paper corpus concordances was time-consuming and required strenuous analysis, which was done by hand. Paper corpora played a significant role in linguistic projects such as the concordance of the Bible and literary works as well as the writing of grammars and dictionaries.

The first concordance was compiled in the thirteenth century by Friar Anthony of Padua for the fifth-century Latin version of the “Vulgate” Bible. This concordance was called “Concordantiae Morales”.

The first important work among English-language concordances was “A Concordance to Shakespeare: Suited to All the Editions” by A. Beckett (1787) and is an important work in the development of corpus linguistics. It contains information about the place of use of a particular word (play, act and action) and passage of a work in which a certain word is used<sup>2</sup>.

The tradition of composing concordances by hand for fiction works was preserved until 1995 and was implemented in the following works: “The Concordance to Conrad's The Secret Agent by Conrad” (Bender, 1979), “A Concordance to Henry James's Daisy Miller by Henry James” (Bender, 1987),

the “A Concordance to the Complete Poems and Plays by T. S. Elliot” (Dawson, 1995)<sup>3</sup>.

In addition to concordances, large samples of texts were also used to create early grammar books. Early grammar of the English language was also based on the classical tradition to use quotes from real texts, for instance, “A Short Introduction to English Gramma” by Robert Lowes (1762). One of the most famous grammars of this period was the seven-volume work of Jespersen (1909-1949), “A Modern English Grammar on Historical Principles” and was also built exclusively on examples selected from a huge number of texts. Otto Jespersen belonged to that type of linguists who were convinced, that the linguistic description should be based not on fictional, but on real examples from real speech texts. The tendency to cite literary works as examples with grammatical rules continued in grammars of the late 19th and mid-20th centuries by such authors as J. Ruhl, H. Poutsma, and Ch. Fries. However, not all grammarians followed this tradition.

Studies of large texts have also been carried out with a view to dictionaries. Starting with Samuel Johnson's Dictionary (1755), lexicographers used quotations from texts by famous writers to illustrate the meanings and usage of words. The lexicographer collected 150,000 illustrative quotations for the 40000 words dictionary. The Oxford English Dictionary (OED), which was created under the direction of James Murray (1880), was based on a corpus of five million card quotes<sup>4</sup>.

<sup>1</sup> Svartvik, J. Corpus linguistics 25+ years on / J.Svartvik. – Amsterdam, NY 2007. – P. 11-27

<sup>2</sup> Beckett, A. A Concordance to Shakespeare: Suited to all the Editions. Printed for G.G.J. and J. Robinson, 1787. 167-183 p.

<sup>3</sup> Tribble C. What are concordances and how are they used // The Routledge handbook of corpus linguistics / ed. by A. O'Keeffe, M. McCarthy. 2010. P. 167–183.

<sup>4</sup> O'Keeffe, A. & McCarthy, M. 'Historical perspective: What are corpora and how have they evolved?'. The Routledge



At the turn of the 19th and 20th centuries, several projects were organized to collect empirical material for lexicographic purposes. On their basis, the dictionary of the American version of the English edited by Noah Webster (Noah Webster's American English Dictionary) (1828) and The Oxford English Dictionary (OED) (1884) were compiled. To create the research base of the Oxford Dictionary, two thousand volunteer readers collected about five million citations totaling approximately 50 million word uses in order to illustrate the meanings and usage of 414,825 words in the dictionary. Based on the collected texts of English dialect speech, J. Wright compiled a dictionary of English dialects "The English Dialect Dictionary" (1898-1905).

The most important pre-electronic corpus is considered to be The Survey of English Usage, created by Randolph Quirk in 1959. The corpus was a large database on cardboard cards containing samples of speech (both written and spoken) of ordinary citizens. This project was a transitional stage in the development of corpus linguistics. R. Quirk called the collected research material "source material" or "texts". This corpus proved to be the most well-structured and systematic corpus of the pre-electronic era. The spoken and written forms of speech were represented by texts of different genres, with both formal and informal communication as sources. The corpus consisted of 200 text fragments, each with a volume of 5,000 word uses. This corpus marked the transition from the pre-electronic to the electronic era.

### THE FIRST GENERATION CORPORA

The idea of creating a corpus (already in the modern sense of the word) emerged in the 1960s, heavily influenced by empirical research. By the end of the 1960s, there were several small corpora created on different principles. It was advances in computer technology, rather than in linguistics, that gave rise to the first electronic corpora. J. Svartvik claims that in 1960 the term "corpus" was hardly ever used and there was a long debate about the plural form of the word "corpus" (corpuses, corpora or even corpi) at the conference<sup>5</sup>.

Computers were just coming into general use in the mid-twentieth century. They were the first primitive machines which were difficult to work with, but their huge potential was immediately recognised and attracted to linguistic research. The computerisation of texts started with Father Busa's Index Thomisticus before 1950 (completed in 1978). The first linguistic corpora of machine-readable texts appeared in the 1960s. They were very small by modern standards, but were characterised by an elaborate organisation.

### THE BROWN CORPUS

In the early 1960s, two projects emerged in Scotland and in the USA in order to create corpora in electronic format. The University of Edinburgh in Scotland was creating a spoken corpus that included transcribed versions of everyday

conversations of British English speakers. This corpus is small in size at 300,000 words. The reason was the time-consuming process of collecting and transcribing spoken language and the absence of a computer at the university.

At the same time at Brown University (USA), Henry Kucera and W. Nelson Francis started creation of a one-million-word corpus, which was named the Brown Corpus. The purpose of the corpus was to investigate the linguistic features of the American English. It contained 500 text passages of 2,000 words each, for a total of about 1 million words. The texts were selected from the fifteen largest genres: newspaper articles (reports, editorials), religious literature, professional literature, popular science literature, fiction, samples of business prose (including government documents), scientific literature, prose fiction, detectives and science fiction, adventure and westerns, romance, humorous stories and novels.

The compilers took into account such characteristics as:

1. The origin and composition of the text (the author had to be a native speaker of American English);
2. Time period (all the texts selected for the corpus were first published in 1961);
3. Balanced representation of different genres;
4. Accessibility to computer processing (special markings to convey graphic features of the text).

The emergence of the Brown corpus sparked interest in the academic community. The corpus quickly became a popular object of linguistic research. Gradually, in the process of its use, scholars came to the realisation that it was possible to make certain comparisons and identify specific patterns only by analysing significant size arrays of texts according to certain rules.

Thus, new studies of language began to be carried out at a higher and more reliable level within the framework of a new trend in linguistics, which is corpus linguistics.

The Brown Corpus has become the standard for corpus compilation, both in terms of volume and the range of writing styles and genres represented in it. With the publication of the Brown Corpus, similar corpora began to appear, first in the UK and then in other countries. For example, in 1976, The Lancaster-Oslo-Bergen corpus (LOB) (1961-1978) was published<sup>6</sup>. In the early 1990s, similar corpora with a volume of at least one million words, consisting of 500 texts of fifteen different genres of writing, began to be created. At the same time, each text had to contain at least 2,000 words. These include, for example, The Australian Corpus of English, ACE (1986), The Wellington Written English, WWE (1986), The Freiburg-Brown Corpus of American English, (1991-1992), The Freiburg London-Oslo / Bergen corpus, F-LOB, (1991-1992), The Kolhapur Corpus Indian English (1978)<sup>7</sup>. These corpora were collectively called

Handbook of Corpus Linguistics. London: Routledge, 2010. 3-13 p.

<sup>5</sup> Svartvik J. Corpus linguistics 25+ years // Corpus Linguistics 25 Years On / ed. by R. Faccinetti, 2007. 11-27 p.

<sup>6</sup> The LOB Corpus. URL:

<http://www.helsinki.fi/varieng/CoRD/corpora/LOB/index.html>

<sup>7</sup> Baker P., Hardie A., McEnery T. Glossary of Corpus Linguistics. Edinburgh University Press, 2006. 192 p.



the Brown family of corpora<sup>8</sup>. The only difference between these corpora was that the corpora contained texts of one of the variants of written English: American, British, Australian, New Zealand and Indian.

### The Lancaster-Oslo-Bergen Corpus

The Lancaster-Oslo-Bergen Corpus created on the Brown Corpus model following the same principles: 15 genres (registers), 500 texts of 2000 words (word uses). It included 1 million words of British English and was called The Lancaster-Oslo-Bergen Corpus (from the names of the British and two Norwegian universities, or LOB for short). Balanced corpora such as created on Brown corpus model are very important for researchers whose interests lie in the field of linguistics and who wish to use the corpus for purposes of linguistic description and analysis.

### The London-Lund Corpus

In 1975 the London-Lund Corpus (LLC) - a corpus of spoken English was completed. The project was a collaboration, funded by IBM, between the Unit for Computer Research on the English Language (UCREL) at the University of Lancaster and the IBM Scientific Centre in Winchester. It contained about 500,000 words with spelling, phonetic and prosodic transcriptions. This huge work was first done on paper by staff at University College London and then transferred to computer form by linguists from the Swedish city of Lund. The LLC corpus consists of 100 transcribed texts of spoken monological and dialogical speech of 5000 words each. Dialogical speech is recorded in texts of conversational style between friends and colleagues, in talks and telephone conversations. Monological speech is represented by spontaneous (comments and stories) as well as prepared speech.

### The Second Generation Corpora

Second-generation corpora are products of the Internet and are characterised by significant volume. For example, in the late 1980s the first mega-corpus was created in the UK, setting a new standard for corpus - the British National Corpus. This corpus is characterised by a volume of 100 million words, with the availability of mark-up and access via the Internet. The corpus is distinguished by the use of full texts moreover, including a wide variety of texts by genre, style and subject (newspaper articles, magazine texts, letters, school essays and etc.).

### The Bank of English

Many European language corpora have been created according to the standards set by the British National Corpus. The Bank of English project began to develop in the 1980s. In 1989 it had 20 million words and in 2012 it had 650 million words.

The distinctive feature of this corpus is a comprehensive reflection of modern English, it covers the

<sup>8</sup> Xiao R. Well-known and influential corpora // Corpus Linguistics: An International Handbook / ed. by A. Ludeling, M. Kyto. 2008. 383–457 p.

English language in general, in proportion to all its variants. The Bank of English is an integral part of one of the largest language databases - Collins Corpus, which is used to create modern dictionaries. This corpus contains over 650 million words, 65-70% of which correspond to the British English, 25-30% – to the American English. The corpus consists of various types of written texts and spoken language. The corpus includes metatext markup, as well as partial markup. The Bank of the English presents a unique in its kind monitor corpus of the English language. Regular updating the corpus with new texts gives the ability to track all changes of English lexical systems, such as the emergence of new words, changing the value of existing lexemes, frequency of use and grammatical structures in speech. Access to the full hull version is chargeable. A free trial is available a one-month subscription to Collins Wordbanks Online for access (550 million words).

### THE COLLINS BIRMINGHAM UNIVERSITY INTERNATIONAL LANGUAGE DATABASE

Then the Collins Birmingham University International Language Database (hereafter-COBUILD) came into existence. This corpus became the basis for the dictionaries and a number of English grammar books. The corpus was created by a team of scholars led by John Sinclair. The project uses the so-called Birmingham Collection of Texts (The Birmingham Collection of Texts), which includes 20 million uses of written and spoken texts. The main corpus contains 7.3 million words, and the so-called “reserve corpus” 13 million. The corpus consists of 75% of the written texts, 25% of the spoken texts. The COBUILD corpus contains texts published between the 1960s and 1982. The written speech consists mainly of prose fiction texts. The corpus captures oral codified speech, which uses only common non-special vocabulary. 75% of the spoken speech is the speech of men over 16 years old, 25% is the speech of women. 20% of the corpus consists of texts of the American English. According to Johansson, the COBUILD project was a breakthrough for its time for a number of reasons:

- 1) the corpus exceeded 20 million word uses;
- 2) the sources were full texts rather than short fragments;
- 3) it was the most representative and included spoken and written texts of various genres. COBUILD became the most voluminous corpus of its time and formed the basis of the Collins English Dictionary, the Collins COBUILD Dictionary of English (1987)<sup>9</sup>.

### The Longman Corpus Network

Another megacorpora that was created in the late 1980s by a group led by D. Summers in the Longman Publishing House, is the Longman Corpus Network. This corpus network is now a commercial database consisting of five main corpora:

- 1) The Longman Corpus of Learners' English (10 million word uses);
- 2) The Longman Written American Corpus (100 million word uses);

<sup>9</sup> The history of COBUILD. URL: <https://www.collinsdictionary.com/cobuild/>



3) The Longman Spoken American Corpus (5 million word uses);

4) The Longman / Lancaster English Language Corpus (30 million word uses)

5) The Spoken British Corpus (10 million word uses)<sup>10</sup>.

Kennedy writes, that although each part of the Longman Corpus Network was set up for a specific purpose, the combined corpus became a powerful tool, recording a large variety of texts of different genres and speech produced by native and non-native speakers of English.

This type of corpus has been used to create dictionaries and textbooks on communicative English grammar. Later, the spoken English corpus was included into the spoken part of the British National Corpus<sup>11</sup>.

### The International Corpus of English

The International Corpus of English (ICE) was developed at University College London under the direction of Sidney Greenbaum in 1996. The aim of the project was to collect texts of regional variants of English. The sub-corpora include spoken and written texts of regional variants of English: Britain (ICE-GB), East Africa, India, New Zealand, Singapore, Canada, Hong Kong, Jamaica, Philippines, USA, Cameroon, Fiji, Ireland, Kenya, Malta, Malaysia, Pakistan, Sierra Leone, Sri Lanka, Trinidad and Tobago.

All sub-corpora contain 60% written texts and 40% spoken transcripts. The dialogic speech subcorpus includes the following genres of spoken language: private conversations (face-to-face and telephone conversations) and public conversations (lessons, radio and television talks, TV and radio interviews, parliamentary debates, business discussions, face to face meetings).

The sub-corpus of monological speech is divided into two parts. The first includes statements of spontaneous speech (commentary, speech at demonstrations and in court). The second part contains prepared read-alouds (TV and radio news, TV and radio talks (talk shows)).

Each subcorpus includes written texts of different types and recordings of oral speech. Currently, the British component of the corpus (ICE-GB) is fully prepared and its texts are provided with morphological and syntactic markup. The volume of each national subcorpus is 1 million words. The British component of the corpus is distributed on disk on a fee basis and a small fragment of it (20 thousand copies) is freely available.

### The Michigan Corpus of Academic Spoken English

The Michigan Corpus of Academic Spoken English (MICASE) contains approximately 1.8 million words of transcribed speech obtained from various sources (lectures, discussions, seminars, interviews, student presentations, thesis defense). The corpus includes English native speakers' speech

<sup>10</sup> Leech G. A brief users' guide to the grammatical tagging of the British National Corpus. URL:

<http://www.natcorp.ox.ac.uk/docs/gramtag.html>

<sup>11</sup> The British National Corpus. URL:

<http://www.natcorp.ox.ac.uk>

moreover, information about the speaker is given in the transcription name. All transcriptions are written in spelling correct form and do not contain markings. Corpus is publicly available and allows transcriptions of individual records to be searched for by transcription and speaker parameters. The characteristics of the speaker include: academic role (teacher, graduate, student, doctor, researcher, etc.), native language (English - native language, English - non-native language, American English, other variants of English), native language (with non-native English). Transcription attributes include: type of event (consultation, colloquium, thesis, interviews, etc.), university unit (humanities and arts, biology and health, etc.), academic discipline, academic level of the participant, level of interactivity of the event (monologue, discussion). In addition, it is possible to search for specific words and collocations by selecting the parameters.

### The Third Generation Corpora

The trend towards compiling larger corpora continued even after the 2000s. A. Mauranen, S. Kubler and H. Zinsmeister describe this generation by the slogan "the bigger the corpus, the better"<sup>12</sup>, and L. Flowerdew is the first to call this period the generation of giant corpus<sup>13</sup>. At this time, a number of new corpora emerged (COCA, Google Books Ngram), with the volume reaching several billion words. The large volume of corpora made it possible to carry out frequency studies on a larger scale and to study collocations consisting of three, four or more words.

The early 2010s were marked by the emergence of great technical possibilities: the fourth generation of BNCweb (2009), CQPweb (2012), SketchEngine (2013), Wmatrix (2013), functionally similar to the third generation of concordancers, were developed. Fourth-generation concordancers have been developed to address the following issues: limited PC power, incompatibility of PC operating systems and legal restrictions on the distribution of enclosures. To solve the legal issues and simplify the access procedure, the enclosures moved to online versions, which increased the speed of processing requests and increased the number of users.

Direct access became available through a web browser equipped with an Online search engine. The fourth generation of concordancers works online and allows a contrasting analysis of a small private corpus with BNC corpus or texts from Internet. M. Davies calls fourth-generation concordancers hybrid corpora, as their interface is

<sup>12</sup> Kuebler, S. & Zinsmeister, H. *Corpus Linguistics and Linguistically Annotated Corpora*. London: Bloomsbury Publishing, 2005.

<sup>13</sup> Flowerdew, L. The argument for using English specialized corpora to understand academic and professional language. In: Connor, U. & Upton, T. (eds) *Discourse in the Professions: Perspectives from Corpus Linguistics*. Amsterdam: Benjamins, 2004. 11–33 p.



a kind of common field for corpus creation and frequency analysis on morphemic, lexical, syntactic and phrase levels<sup>14</sup>.

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<sup>14</sup> Davies, M. *Corpora: an introduction*. In: Biber, D. & Reppen, R. (eds) *The Cambridge Handbook of English Corpus Linguistics*. Cambridge University Press. 2015. pp. 11–31.





# A STUDY ON THE MAINTENANCE MANAGEMENT SYSTEMS OF EASTERN SAMAR NATIONAL COMPREHENSIVE HIGH SCHOOL BUILDINGS: BASIS FOR THE DEVELOPMENT OF A HOLISTIC MAINTENANCE MANAGEMENT SYSTEM

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## ABSTRACT

*The purpose of this study are the following: to identify the present maintenance management systems of the school buildings of Eastern Samar National Comprehensive High School (ESNCHS), to describe the current conditions of the school buildings of ESNCHS and to design a holistic framework that will help improve the maintenance management systems.*

*This research employed the qualitative method that is rooted in the phenomenological paradigm. Also, this research employed the case study research design. This design is appropriate if a study intends to learn more specifically, contextually, in-depth information on a particular real-world topic, a case study is a suitable research design (McCombes, 2019)*

*Every institution must follow strict and legal guidelines in terms of spending or funding for its physical plant and facilities. In the case of ESNCHS, its budget and fund management is saddled in the revised guidelines for the Implementation of the Basic Educational Facilities Fund (BEEF) Manual of DepEd. contributed to the efficient management. Thus, the efficiency of the budget and fund management in the maintenance of its school building. Moreover, having extra source of fund, such as other income-generating funds of the school also help augment the expenses for the schools' school building maintenance*

**KEYWORDS:** *School Building, Eastern Samar National Comprehensive High School, Management Maintenance*

## 1. INTRODUCTION

Building maintenance investment is prevalent all over the world. Its value depends on the quality of the maintenance invested in the buildings. Maintenance management involves obtaining optimum benefit from the investment made on the maintenance activities. Building maintenance is necessary because it brings many benefits to its users or occupants. For example, constant building maintenance maintains the value of a property, it enhances the serviceable life of building materials, it improves the appearance of the property, it identifies and fixes minor problems before they become major, it potentially eliminates the need for repairing projects. Thus, economically efficient. Repairs and maintenance can be disruptive and costly in terms of fabric and finances, hence by carrying out maintenance places less of a burden on community resources can be extending the period between repair campaigns.

There are several types of maintenance that a management can have, such as planned maintenance, unplanned maintenance, preventive maintenance, corrective maintenance, emergency maintenance, condition-based maintenance, and scheduled maintenance (Garrido, n.d.). It is for the management to decide which maintenance type they will use.

For large school institutions, like Eastern Samar National Comprehensive High School, building maintenance can seem daunting, costly, or even unnecessary, particularly when building still functions smoothly. But the school administration must realize that proper and consistent building maintenance is imperative for safety reasons.

Eastern Samar National Comprehensive High School (ESNCHS) was established after the issuance of Republic Act 4221 (1966), 'Providing for the Division of Samar Island into Three Provinces: Samar, Eastern Samar, and Northern Samar. This school is considered as one of the largest high schools in the Province of Eastern Samar. It has many classrooms and facilities that could accommodate 6000 high school students.



For the past 50 years, the school buildings of ESNCHS have multiplied. Both Junior High and Senior High have sufficient buildings. However, due to the massive number of students, some of the buildings are already deteriorating. Many are dilapidated and a bit messy.

School Building maintenance is the secret, the key to make buildings more presentable and lasting. In fact, school building maintenance plays a major role in the performance of the students. At the same time, school building maintenance make the student feel safe.

It is therefore the purpose of this study to create a checklist/tool for school building maintenance. All persons who benefit from school buildings are required to cooperate in this endeavor.

## SIGNIFICANCE OF THE STUDY

Building structures are an integral part of every school institution. It is where the actual teaching of theories take place. It is therefore imperative that the school administration ensure its regular maintenance. A well-maintained school building does not only help in the learning of the students, but it also ensures the safety of people who use the building.

## RESEARCH QUESTION

What are the maintenance management systems of Eastern Samar National Comprehensive High School buildings?

### Sub-Questions

1. What are the present maintenance management systems of the school buildings of Eastern Samar National Comprehensive High School (ESNCHS)?
2. What are the current conditions of the school buildings of ESNCHS?
3. What holistic maintenance management system can be suggested to improve the condition of school buildings of ESNCHS?

## RESEARCH AIM AND OBJECTIVES

The purpose of this study is to know the maintenance management system and the school building conditions of Eastern Samar National Comprehensive High School buildings.

1. Identify the present maintenance management systems of the school buildings of Eastern Samar National Comprehensive High School (ESNCHS).
2. Describe the current conditions of the school buildings of ESNCHS.
3. Design a holistic framework that will help improve the maintenance management systems on the condition of the school buildings.

## METHODOLOGY

### Research Design

This research employed the qualitative method that is rooted in the phenomenological paradigm because the research discovered the existing and underlying facts about the management maintenance system and the present condition of the ESNCHS school buildings. The research approach employed the case study research design. This design is appropriate if a study intends to learn more specifically, contextually, in-depth information on a particular real-world topic, a case study is a suitable research design (McCombes, 2019). The case study approach was used because it allowed in-depth investigation of the ESNCHS school buildings. The approach allows in-depth investigations of varied issues in their real-life settings (Sarah Crowe, 2000). Moreover, this approach is consistent with the objective of this study which is to provide an understanding of the maintenance system of ESNCHS.

### Sampling

Purposive sampling, a nonrandom sampling method was used in choosing the respondents of the study. In the context of a study, survey, or experiment, this sampling technique used is extremely accurate and pertinent. Purposive samples make it simple to target demographics that are involved in projects. In this sampling method, there is little room for error. They are picked based on the right attributes; therefore, the selection procedure is precise and effective. On the survey of the present maintenance management systems of the school buildings of ESNCHS, the principal was purposively chosen. All issues and concerns were addressed to the school principal in cases where schools do not have management maintenance system department. Moreover, it is the duty of the school head/principal to enforce the rules on proper care of educational facilities (Llego, n.d.). The same sampling method was used for the collection of data from the teaching and non-teaching personnel and the learners' parents. Using purposive sampling method makes the collection of qualitative response data more robust since the participants are more knowledgeable in understanding the topic. The selection of the participants of the study was taken from the population of ESNCHS teaching and non-teaching staff, including parents of its learners, who are either knowledgeable or skilled at identifying the condition of school buildings' infrastructures. The selected participants were composed of the administrative staff of the school, teachers, and parents as suggested by Bastide (1998), except for the students who are less experienced as compared to the adult ones in terms of building conditions. The ones with more knowledge or skills about building conditions were selected,



including the employees assigned in the carpentry section of the school specifically the ones doing the repair and maintenance. The survey guidelines were translated to them orally to rate the buildings accurately.

The school buildings were selected purposively. Four old buildings, namely the administration building, building A, ESF building, and the Marcos type building, and 2 new buildings, namely the ABM and HUMSS buildings. Selected old buildings were more than the new buildings as there are more old than new buildings.

### **The Study Area**

The study area was the Eastern Samar National Comprehensive High School (ESNCHS). It is in Barangay Alang-Alang, Borongan City Eastern Samar. It is the largest school in terms of both the land area and population. This was the school chosen because of its most numerous buildings compared to other schools of the division. The study covered 6 school buildings both in the senior high school and junior high school.

### **Research Instrument**

Written interview (Appendix D) and rating sheet (Appendix E) were the main instruments used in this study. They were adapted from the study of Adamu (2015). A permit was granted by the author after a request was sent through e-mail (Appendix C). The written interview was modified because it was intended for hostels in some universities in Nigeria. Majority of the questions were retained since the building structures in their study area and in ESNCHS were both made of concrete materials and similar in structures. The maintenance management written interview and the condition rating were modified for contextualization purposes. The content of the questionnaire on the school buildings' maintenance management systems was intended for the school principal of the school since the school lacks a maintenance department. The issues and concerns about school buildings were directly addressed to the principal. The instrument used for the survey on the school buildings' present condition was a condition survey and checklist. It was also modified to fit the evaluation of the ESNCHS' school buildings that were being described or rated. The survey on buildings' present condition consisted of rating scales questions with the ratings of 1 to 5, one as the lowest, and 5 as the highest. The instrument was intended for the teaching and nonteaching personnel, and parents of the learners. A corresponding checklist (Appendix E) was given to each respondent.

### **Ethical Considerations**

A letter of request to participate in the study was sent to each respondent. The participants were assured that the conduct of this research abided by the principles of ethics, such as voluntary participation, confidentiality, informed consent, anonymity, potential for harm, and results communication. The participants will be allowed to withdraw if they decide to do so.

### **DATA GATHERING**

Primary data were collected through questionnaires and rating sheets that were answered by the school principal, teaching and non-teaching personnel, and the parents of learners.

**Data Collection on the School Buildings' Present Maintenance Management Systems.** After securing the permit to conduct research in ESNCHS, data collection immediately began. The written interview (Appendix C) were personally handed in to the school principal as she is the one in-charge of the school's maintenance management system.

**Data Collection on the Present Condition of the School Buildings.** The participants of the study did the ocular observations on the school buildings of ESNCHS to determine its present condition. In qualitative research, observations capture data in true-life context because the observer does not tamper with the natural setting of the environment; the exercise may require walk-through and inspections (Struwig & Stead, 2013, p. 104, cited in Adamu, 2015). Thus, the use of observation in evaluating the school buildings' current condition. The respondents' on-site observation of the ESNCHS school buildings was done by checking the ceiling, floor, wall, doors, windows, electricals, plumbing. Buildings were checked based on their appearance, such as from "no defects" to "unsafe due to severity of deterioration" (Table 1). The assessment of the respondents will be written in the rating sheet which has a scale of 1 as the poorest and 5 as the highest (Table 2).



**Table 1. Condition survey guide for the ESNCHS school buildings**

Component	Description of Condition	Rating	Value Assigned
<b>Ceiling</b>	Appearance is as new, no defects, routine maintenance is adequate to uphold quality and performance.	Excellent	5
	Slight soiling or discoloration, only appearance affected. Minor & routine maintenance is adequate.	Satisfactory	4
	Soiled surfaces, few cracks, or tears, due to aging or misuse, no signs of leakage from roof.	Fair	3
	Badly stained surfaces, broken and cracked surfaces, sagging panels & evident signs of leakage from roof.	Poor	2
	Unsafe & unhealthy for occupants due to severity of deterioration. Requires urgent major refurbishment to save the structure.	unsuitable	1
<b>Floor</b>	Appearance is as new, no defects, routine maintenance is adequate to preserve quality.	Excellent	5
	Slight or early signs of wearing due to use or aging. Minor & routine maintenance is required to improve appearance.	Satisfactory	4
	Worn-out finishing, minor cracks apparent, finishing due for renewal, no major defects.	Fair	3
	Early signs of structural defects such as major cracks, dampness, worn-out surfaces. Urgent and major repairs required to restore component.	Poor	2
	Severe deterioration such as major cracks and water seepage. Component is unsafe & unhealthy for occupants due to severity of damage. Requires urgent major refurbishment to save the structure.	unsuitable	1
<b>Wall</b>	Appearance is as new; no defect; routine maintenance is adequate to preserve quality.	Excellent	5
	Diminishing aesthetic appearance due to aging and use; no other signs of defect. Minor works such as re-decoration and routine maintenance is adequate to improve appearance.	Satisfactory	4
	Faded surface finishing; minor cracks that may not be connected to structural failure. Minor maintenance action and re-decoration is necessary to restore component.	Fair	3
	Early signs of structural defects such as major cracks, dampness, worn-out surfaces. Urgent and major repairs required to restore component.	Poor	2
	Severe deterioration such as major cracks; dampness and molds on element. Unsafe & unhealthy for occupants due to severity of damage. Requires urgent major works to save the structure.	unsuitable	1
<b>Doors /Windows</b>	All doors and windows satisfy all functional and aesthetic purposes and are in best operational state. Routine maintenance adequate to uphold elements	Excellent	5
	Some of the elements show signs of wearing of finishing due to age and use. Routine maintenance and re-decoration is adequate to restore the elements.	Satisfactory	4
	All or most elements are in conditions described in 'B'; in addition, slight problems are observed such as cracked or broken panes, and early operational issues with locks and hinges, that require minor repairs.	Fair	3
	Significant problems affecting the operation of most elements such as locking devices & difficulty of operating. Damaged door handles and broken or cracked panels.	Poor	2
	Completely dysfunctional and damaged elements. Unsafe for use by occupants; cannot be repaired; require complete replacement.	unsuitable	1
<b>Electricals</b>	All electrical fittings for power, lighting, fans/air conditioners are functional; their appearance is as new.	Excellent	5
	A few of the fittings show signs of wearing due to age and use. Facilities are not at their best operational state; space is adequately lighted; all power sockets, fans/air conditioners and control switches are operational and safe for users.	Satisfactory	4



Plumbing	Few fittings appear good but non-operational such as dead light bulbs or tubes; faulty control switches that require minor repairs. Rooms can be lighted partially; fans/air conditioners are not fully operational.	Fair	3
	Poor or non-operational fans/air conditioners, power, and light fittings. There are some damaged light and power fittings, with signs of overloading and misuse.	Poor	2
	Exposed wires from lighting and power points. Fittings appear inferior and not properly fixed. Room is dark especially at night. Unsafe conditions and connections for users/occupant.	unsuitable	1
	Pipes and sanitary fittings are as new; quality not inferior; users operate with ease. Routine maintenance is adequate for preservation of the current standard.	Excellent	5
	Pipes and fittings still in good operational states but showing early signs of wearing due to age and use. Minor repairs and routine maintenance works are adequate.	Satisfactory	4
	Pipes and fittings show minor cracks; no signs of leakage; few missing or broken seat or tank covers, shower or tap heads. Facilities can only be partially operated and used.	Fair	3
Plumbing	Early signs of leakage of pipes and fittings due to ageing, use or poor previous maintenance work or deferred maintenance. Severe conditions of 'C' observed partial blocked sinks, basins, and shower drains. Major maintenance works can restore facilities.	Poor	2
	Severely damaged fittings, blocked sinks, basins, and shower drains. Unsafe & unhealthy. Facilities cannot be repaired. Replacement and new works required.	unsuitable	1

**Table 2. Rating sheet for the sheet for the ESNCHS school buildings' current condition**

<b>Name (Optional)</b>					
<b>Teaching</b>	○	<b>Non-teaching</b>		○	<b>Parent</b>
<b>Name of Building</b>					
<b>Component</b>	Rating				
	1	2	3	4	5
<b>Ceiling</b>					
<b>Wall</b>					
<b>Floor</b>					
<b>Doors</b>					
<b>Windows</b>					
<b>Electrical</b>					
<b>Plumbing</b>					
<b>Legend:</b>					
1 – Unsuitable	2 – Poor	3 – Satisfactory	4 Good	5 - Excellent	

**DATA ANALYSIS**

The data that were generated through the written review arranged according to cases and questions for more convenient textual analysis. Textual analysis of the school principal's responses to the survey questions on the school's maintenance management system was used. The term "textual analysis" is a catch-all for a variety of study techniques used to define, analyze, and comprehend texts (Caulfield, 2019). A text can provide a variety of information, including its literal meaning as well as its subtext, symbols, assumptions, and ideals. The chapter also presented and discussed condition survey results of the school buildings and textual analysis of the interviews that were conducted. The mean ratings for school buildings condition was presented through bar charts and were interpreted directly.

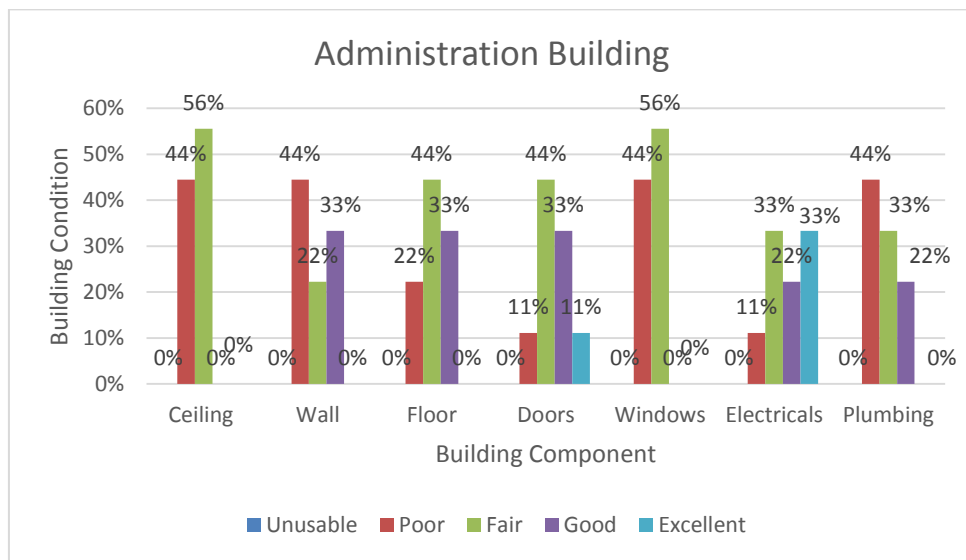
## RESULTS AND DISCUSSION

### School Buildings' Present Maintenance Management Systems

In general, the school buildings are in good condition as shown in the ratings, except for the administration and the Marcos type buildings. Detailed ratings for each building are shown in Figures 1 to 6.

#### Administration Building

Built in the 1980s and is a two-storey concrete building with four offices on the second floor and five offices on the ground floor, including the principal's office, and with three comfort rooms. The ratings for the condition of the building is shown in Figure 1.

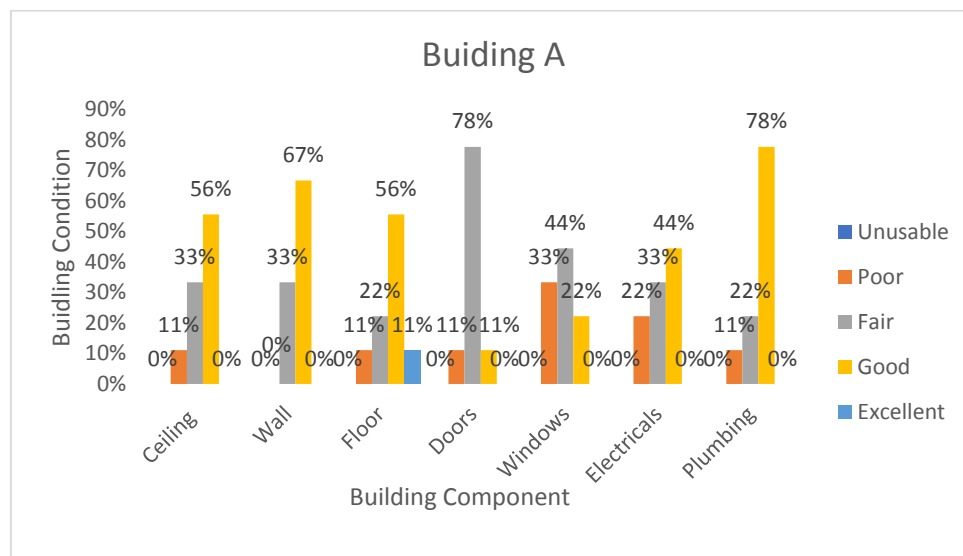


**Figure 1. Condition rating of the administration building**

The teaching and non-teaching building users were the ones who did the assessment of the building's condition. The results showed that majority of the ceiling and the windows are in fair (56 %) condition, while 44% are in poor condition. So far, two components as unusable and no portion is in excellent condition. The floor and the doors were also rated fair (44%) while 33% is in good condition but neither unusable nor excellent. Forty – four per cent (44%) of the plumbing is poor, but 22% is in fair condition. The electrical was voted as fair and unusable (33%).

#### Building A

Building A is two-storey building composed of 21 classrooms, Science and MAPEH Centra, and the school clinic. It was constructed in the early 1980s and is made of concrete materials.

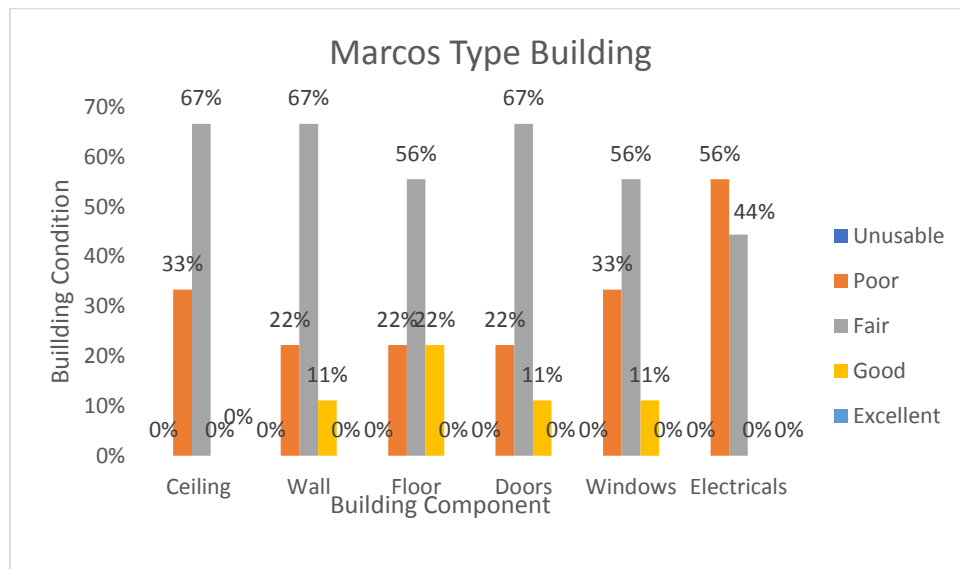


**Figure 2. Condition rating for the administration building A**

The plumbing was voted “Good” (78%) but other portions are fair (11%) and poor (22%) in condition. Other components that were voted as “Good” are the ceiling (56%), wall (67%), floor (56%), and electricals (44%). The doors are in fair condition 78%, but other doors are in poor and others are good (11%). The windows are fair (44%), but others are poor (33%). None of the building components are unusable nor in excellent condition.

**Marcos Type Building**

The Marcos type or C building is the oldest of the ESNCHS buildings. It has four (4) classrooms and made of concrete materials.

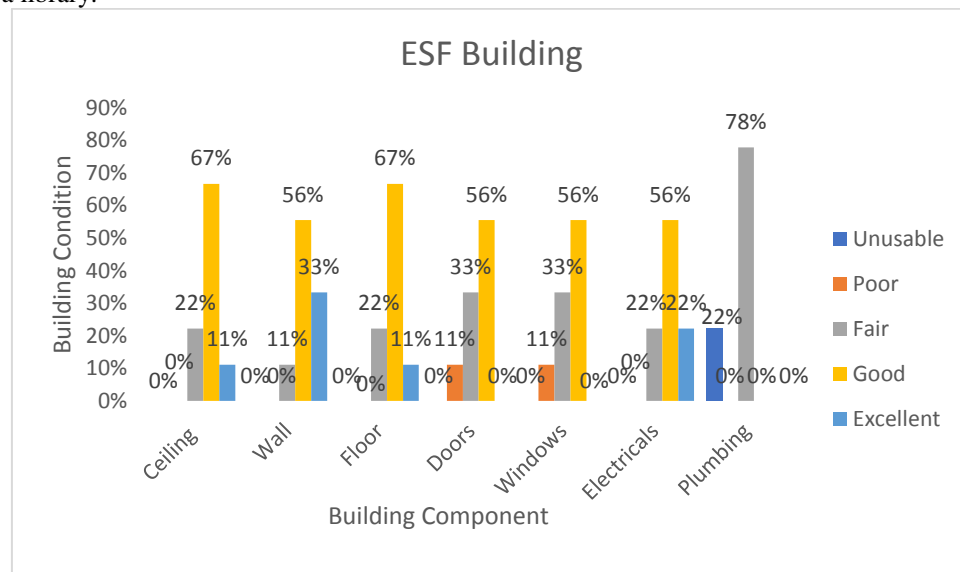


**Figure 3. Condition rating for the Marcos type building**

Majority of the building components were rated fair, such as the ceiling (67%), wall (67%), doors (67%), and windows (56%). The electricals were rated poor (56%). None of the components were unusable nor excellent.

**ESF Building**

The ESF Building was constructed in the 1990s and is made up of concrete materials. It is a two-storey building with five (5) classrooms and a library.



**Figure 4. Condition rating for the ESF building.**



Majority of the building components are in good condition, such as the ceiling (67%), floor (67%), walls (56%), doors (56%), windows (56%), and electricals (56%). Fair (78%) is the condition of most of the plumbing of the building. Unlike the other buildings, the other components of this building were rated excellent by some participants, such as the ceiling (11%), wall (33%), floor (11%), and electricals (22%). However, 22% of the plumbing is unusable.

### ABM Building

The ABM building is a two-storey senior high school building which is composed eight classrooms and two (2) comfort rooms. This is a concrete building which was constructed in the 2010s for the K-12 program of Benigno C. Aquino's administration.

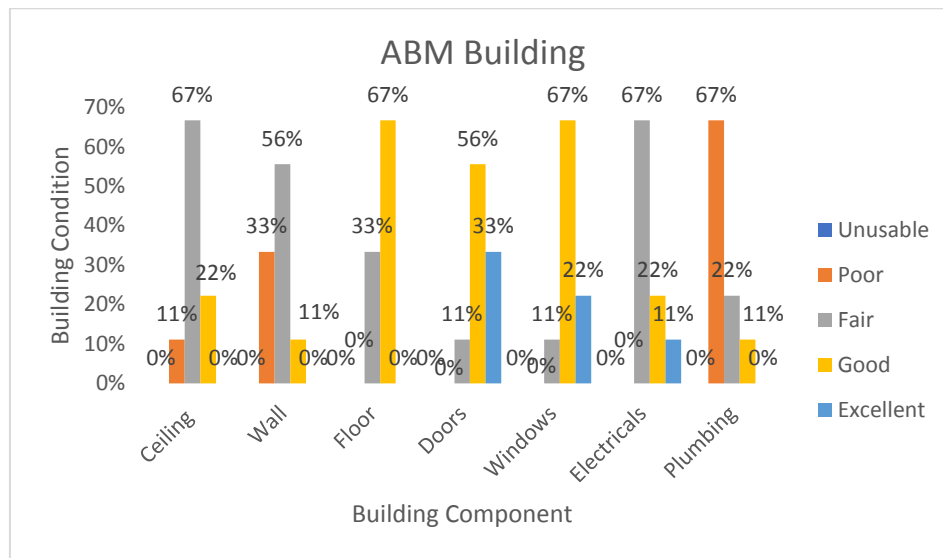


Figure 5. Condition rating for the ABM building

Majority of the floor, doors, and windows are in good condition (67%, 56%, and 67% respectively), while the ceiling, wall, and electricals were fair (67%, 56%, and 67% respectively). However, 67% of the plumbing is poor. Thirty-three per cent (33%), 22%, and 11% of the doors, windows, and electricals were excellent, while none of the components are unusable.

### HUMSS Building

The Humanities (HUMSS) building is a two-storey concrete building that was constructed in the 2010's for the K-12 program. It has also EIGHT (8) classrooms and two comfort rooms.

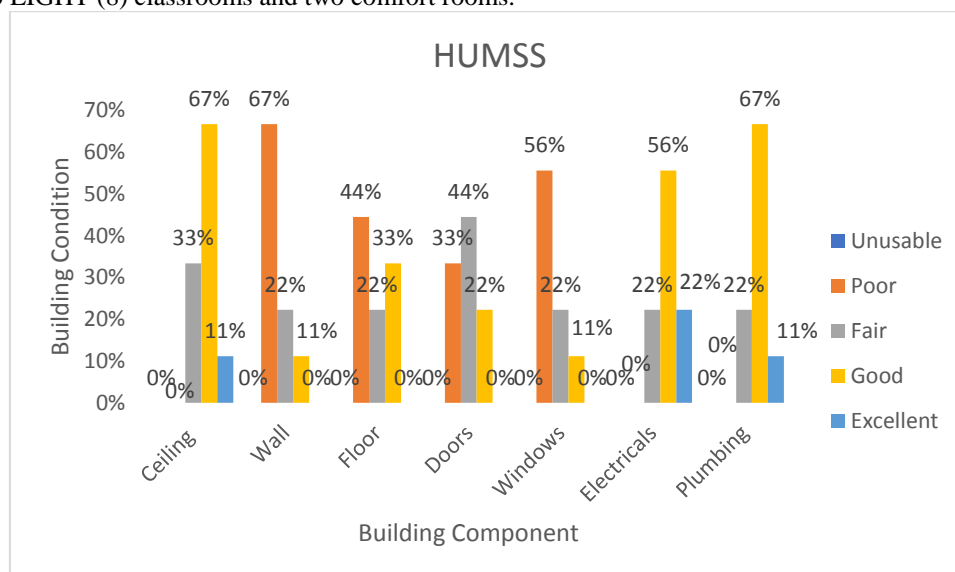


Figure 6. Condition rating for the HUMSS building.

“Good” (67%) was the rating given by participants for most of the ceiling and plumbing conditions. Majority of the electricals are also in good (56%). However, the wall (67%), floor (44%), and windows (56%) are in poor condition. But 11%,





22%, and 11% of the ceiling, electricals, and plumbing respectively are also observed to be in excellent conditions. None of the building components were rated unusable.

## **DATA COLLECTION ON THE PRESENT CONDITION OF THE SCHOOL BUILDINGS**

### ***The Maintenance Management System***

The maintenance management system's information of the school buildings of ESNCHS was obtained through a written interview for the administrative officer of the school. Responses to the written interview showed that the school values the maintenance of the school buildings because it is where learning takes place. Poor condition of the school buildings may affect not only the academic performance of learners but their safety as well. The school is guided by the policy of the Department of Education in terms of its maintenance management system. The school adopts the Department of Education's Educational Facilities Manual which is a product of collaborative efforts of the DepEd Central and regional/division offices, personages from the United Architects of the Philippines (UAP), Philippine Institute of Civil Engineers (PICE), Commission on Audit (COA), Heritage Conservation Society, National Disaster Coordinating Council (NDCC), the Asian Disaster Preparedness Center (ADPC), and member agencies of the Education in Emergencies cluster (Llego, n.d.). The manual was created to provide DepEd central, regional, and field officials with a resource to help manage educational buildings effectively and efficiently.

The school maintains a record of previous maintenance and it also has an inventory of the school building facilities that is annually updated.

### ***Maintenance Budget & Funding***

The school's maintenance budget and funding follows the guidelines stated in the Revised guidelines for the Implementation of the Basic Educational Facilities Fund, where it states the manner of allocation and prioritization. Other source funding is the income-generating facility that the school has, the rentals of the school gymnasium by other private individuals and organizations.

### ***Maintenance Operation Strategies***

Having preventative maintenance plans avoid the deterioration of the school buildings of ESNCHS. The school's maintenance plans include constant monitoring of the school buildings and regular reporting of data of buildings' condition. But maintenance is based on its priority settings of maintenance works such as emergency, urgency, based resource availability, etc.

The school adopts the following maintenance operation strategies: corrective based on reported faults, preplanned operations whether a failure occurs or not, and operations carried out in anticipation of a failure. In cases where there is repair needed, the mode of work of execution is both in-house, outsourcing. The maintenance staff, in terms of number is sufficient, as well as its qualification, experience, and expertise. Thus, the staff is efficient in terms of maintenance management.

### ***Communication***

To maintain the school buildings' condition, its learners are oriented on the proper use of the building and its components during the first day of classes and as needed, through their advisers. They are reminded that the school building is necessary to carry out the teaching and learning process. In cases where there is fault or complaint from the users, they first inform their advisers, then the advisers requests the school head for the repair or faults, and the school head immediately instructs the administrative officer to oversee the issue and its repair. The school head ensures that the workers in the maintenance section has an open-door policy within the school.

### ***Performance Evaluation***

Performance evaluation is necessary to determine if the school is working efficiently in terms of managing the maintenance of school buildings. To evaluate the condition of school buildings, the administrative officer and the principal do constant monitoring of the structures. An annual inventory conducted on the school buildings' condition to determine if they require significant maintenance and repair activities. The data collected is immediately addressed by the administration, specifically the ones that need immediate action. No other method is employed by the school administration that will evaluate and improve the condition of the school buildings.

## **INTERRELATIONSHIPS BETWEEN MAINTENANCE MANAGEMENT AND OTHER MANAGEMENT ASPECTS**

### ***Relationship with Staff***

The school principal and the administrative officer are involved in evaluating the performance of maintenance management system. But they extract ideas from their staff on how the strategies will be improved. Involving the staff in such an activity helps them motivated to do their work. Aside from the staff involvement, the administration allows their staff to attend trainings for the maintenance staff/workers for new technology and skills.

In terms of the performance of the staff, the administration ensures that they are good at every task they are given, and this can be ensured by hiring competent and skilled workers. the administration gives emphasis on the individual task and

schedule of the staff so they can focus and do work effectively. Their performance, then is evaluated based on the outcome of their work.

## CONCLUSIONS

The school's strong belief that buildings affect not only the academic performance of learners, but their safety, and the knowledge of the school administration on how to manage the buildings' maintenance are the reasons for having a well-maintained building of the school. Moreover, the school's adoption of DepEd's policy of the Department of Education on maintenance stated in the Educational Facilities Manual management system guided them in coming up with efficient management system.

Every institution must follow strict and legal guidelines in terms of spending or funding for its physical plant and facilities. In the case of ESNCHS, its budget and fund management is saddled in the revised guidelines for the Implementation of the Basic Educational Facilities Fund (BEEF) Manual of DepEd. contributed to the efficient management. Thus, the efficiency of the budget and fund management in the maintenance of its school building. Moreover, having extra source of fund, such as other income-generating funds of the school also help augment the expenses for the schools' school building maintenance.

The school's maintenance operation strategies, such as constant monitoring of the school buildings, regular reporting of the of data of the buildings' condition, corrective based on reported faults, preplanned operations whether a failure occurs or not, and operations carried out in anticipation of a failure are a must in managing the maintenance of the school's buildings. But their setting up of priorities is another factor that make the management maintenance system effective in terms of keeping their structures well-maintained.

In the communication aspect, it is the school's organized and systematic ways of communicating to the users or learners that make the issues on buildings be resolved at an efficient and faster rate.

Evaluation is always needed to determine how much repair a building need. In ESNCHS, evaluation is done through monitoring. It is through evaluation that the administration gets informed of the actual condition of the school buildings. The school's regular evaluation and inventory of its buildings help maintain its good structure condition.

The administration's practice of involving staff on determining how the strategies that will help the maintenance management strategies will be improved motivate them to do their work, more so when they are sent to attend trainings for new technology and skills acquisition. The improvement of skills due to trainings make them become more competent and better at doing their work.

## RECOMMENDATIONS

To have well-maintained physical facilities, such as classroom buildings, an efficient and effective management system is necessary. A management maintenance department may also be created to directly investigate school buildings issues, such as maintenance and repair. There are several aspects that must be considered by the management to have a better-performing management maintenance system: a well-defined maintenance plan, maintenance budget and funding, maintenance operation strategies, communication, performance evaluation, interrelationships between maintenance management and other management aspects, relationship with strategic management. With these factors in the system, it will make the learners safe and their academic performance better. Further research must also be conducted to evaluate the impact of the condition of the school buildings on the performance of the learners. Thus, a holistic framework that will help improve the maintenance management systems on the condition of the school buildings is recommended (Figure 7).

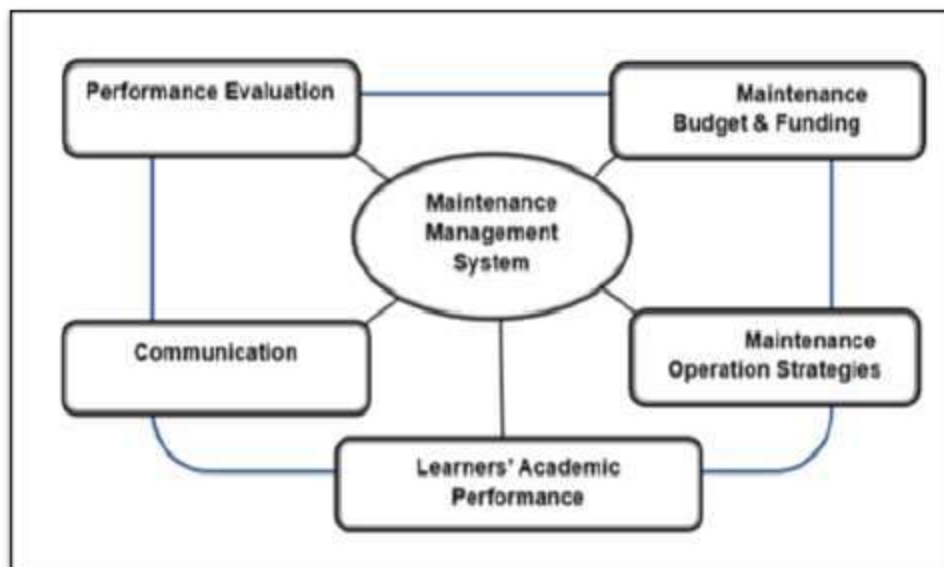


Figure 7. The holistic framework for the improvement of the maintenance management systems on the condition of the school buildings



After analysis of the data gathered in this study, a holistic maintenance management system (Figure 7) was suggested in maintaining the quality condition of school buildings.

modification for contextualization purposes. This study suggests that a maintenance management system should not only focus on the physical appearance outcome of the buildings, but it should also consider the learners who are its main users. Apart from ensuring budget and financial support, consistent and effective maintenance operation strategies, communication, and performance evaluation, the management system must also consider the impact of school buildings condition on the academic performance of the learners. The academic performance of learners that use the school buildings must also be evaluated alongside the evaluation of the school buildings' condition to determine if it impacts the learning. Thus, a maintenance management system must be holistic in its approach.

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## DECLARATION

### Funding/ Grants/ Financial Support

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### Conflicts of Interest/ Competing Interests

All authors have declared no competing interest exist.

### Ethical Approval and Consent to Participate

Not. Applicable. The article does not require ethical approval and consent to participate with evidence.

### Availability of Data and Material/ Data Access Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## Authors Contributions

This research paper was carried out in collaboration with 3 authors. All authors designed the study. Author Fr. Alipio Antonio B. Añano Jr., SDB made the introduction and contacted Author Adamu for the use of questionnaire. Author Ma. Mercia G. Corado collated the survey, wrote the results and discussions, and edited the entire manuscript. Author Felinda T. Jamer wrote the conclusions and recommendations. All authors read and approved the final manuscript.

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# "SUSTAINABLE DEVELOPMENT - 2030" PROGRAM IN THE REPUBLIC OF UZBEKISTAN ANALYSIS OF THE ECOLOGICAL PROBLEM IN THE IMPLEMENTATION OF ITS GOALS

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The concept of "Sustainable Development Goals" was born at the Rio+20 UN Conference on Sustainable Development held in 2015, and during this conference, three principles of the concept of sustainable development: in particular, tasks covering the principles of environmental, economic and social development. Please note . The " Sustainable Development - 2030 " program consists of 17 new Sustainable Development Goals (SDGs), or Global Goals , and is one of the programs that determine the direction of global policies and investments for the next 15 years . Global goals imply the need to find a solution to these tasks by 2030, and the leaders of the world countries promise to completely eradicate poverty in all parts of the world in order to implement the global goals .

The main essence of the new 17 Sustainable Development Goals (SDGs) of the "Sustainable Development-2030" program is as follows, and it is planned to serve the following principles:

- Ecological principle - the purity of the environment, the purity of the Mother Earth, the natural elements characteristic of it: keeping the composition of water, air and soil in order, maintaining the ecological balance in nature, is one of the most important problems of the present era, and the purity of each area is not only serves for the ecological cleanliness of the area, as well as other areas in the surrounding area;
- The economic principle is to reform the national economy of countries, liberalize foreign trade, tax and financial policies, support entrepreneurship and guarantee the inviolability

of private property, organize deep processing of agricultural products, and ensure rapid development of regions. consists of taking several effective measures.

- The principle of social development is to build a people-friendly state by increasing human dignity and further developing a free civil society, to ensure the rapid development of the national economy and high growth rates, to conduct a fair social policy, to develop human capital, and the needy population by 2026. full coverage with social benefits and financial assistance;

The Global Goals aim to complete the work started by the Millennium Development Goals and ensure that no one is left behind in the development process. The Sustainable Development Fund was introduced by the United Nations Development Program (UNDP) at the expense of the Spanish government as an initial investment , and serves to ensure the transition from the Millennium Development Goals to the Sustainable Development Goals.

The main goal of the global initiative "Business Call to Action" (BCtA) is to accelerate the process of achieving the Millennium Development Goals, and it aims to encourage companies that implement business models that promote commercial growth and, at the same time, the overall development process. In the current globalization process, it is the duty of each of us to encourage the leaders of all countries to take clear and consistent measures aimed at reducing the level of poverty and inequality and protecting our motherland.



In the implementation of the UN global goals, the 4th goal: Quality education is defined, and the implementation of these processes requires going through complex stages. In the Republic of Uzbekistan, 2023, which has just arrived, has been declared the year of "Attention to people and quality education", and a number of large-scale works are being carried out in the country to achieve these goals.

In addition to dealing with UN peace and security issues, providing the population with full quality education, ensuring the scientific and technical development of existing educational institutions, establishing new educational institutions that meet worldly requirements, provides practical assistance in solving the issues of providing employment to the population, raising its standard of living, and assisting in social and economic development. The development efforts of the UN have a great impact on the lives of millions of people in the world and their happy marriages. Despite many advances in development, the world still has huge disparities in wealth and well-being. Combating poverty, reducing inequality within and between countries remains one of the main goals of the UN. The UN system not only develops a political direction, but also works in various ways to achieve its economic and social goals, that is, it consults with governments on development programs and plans, and implements international norms and standards. It mobilizes 25 billion dollars of invested funds every year. This includes the income from financial institutions aimed at implementing the development program.

Nature protection is the realization of a set of scientifically based actions of states and peoples in the interest of all humanity, rational use of nature, preservation, protection and increase of natural resources. Today, environmental problems arising in nature are no longer a secret to anyone, prevention of this crisis is the duty of every conscientious person living in this place. Nature protection, the happiness of all mankind on earth, care for the fate of future generations. Today, they understood that natural resources are not infinite, but can be exhausted, and they should be used sparingly. The natural environment and natural resources are valuable social assets that need to be taken care of on a global scale. The natural environment should be protected by regular implementation of necessary measures to ensure the future prosperity of the citizens of some countries, as

well as the entire humanity, and we should all be equally responsible for this.

In the formation of the current image of the planet Earth, the proportional development of nature and society is called co-evolution, and in these processes, the pace of society's development is very high, while the speed of nature's evolution does not change. In order to achieve coevolution, society must give up some of its needs. This process is very complicated, and in order to achieve it, the consciousness, thinking and real possibilities of humanity must change. At present, the consent of the world population to such conditions is a separate issue, and it is preferable to leave this issue open.

In the 21st century, the rate of human impact on the environment is very high, and all countries are using their existing economic opportunities and working to increase material well-being. Global rise during Stable development on the way all efforts are also his own positive the results is giving new century to their heads came and developed in the states ecological of the crisis prevention get events gross internal 1.5-2.5% share of the product ( GDP ) . spending must calculated was \_ Industry developed , developed release of processes strengthening at the expense of ecological indicators much pitiful become down the rest countries while this the indicator is from 4-5% less not to be need is emphasized . Population between ecological education - upbringing development , ecological mind and thinking level increase , this in the system public role increase , production release processes ecological technologies current to do issues Stable development in providing important important has \_

Current at the time nature and a person of life ecological risk under to stay process more getting complicated and difficult is going Environment with society between connections balance the destruction of humanity natural marriage style and to the situation defect is delivering . Earth face nature stability , stability and his to himself special laws humanity by of violation main reasons one is this population layer the environment protection about of knowledge lack of and of nature future ecological situation according to in their ignorance .

Uzbekistan in the republic nature protection to do about in laws all as shown education in institutions ecological education - upbringing processes perfect organize to do to the goal according to is common \_



medium education schools, lyceum and in colleges ecology according to separate subject education a must and is necessary. High education in institutions action doing study plans mainly "Ecology and the environment" protection the science of doing being taught was 2021-2022 academic year from the year starting from while High education of the ministry to the command mainly in the republic all High education institutions study in the plans sciences OTMs themselves choose opportunity given. Happen happening changes at the expense of many education in institutions Ecology of sciences instead of their own specialty about sciences pouring. High education in institutions study of the process such way organize to be done, nature protection about of sciences to be taught about some one shortcomings manifestation does. In the country stable development to the process reach for ecological education issues High and innovative of education basis organize to do it is necessary.

The new goals of the "Sustainable Development-2030" program consist of 17 global goals and are divided into several interrelated groups from the point of view of the development of society. These are:

- I. Goals aimed at improving the lifestyle of the population, ensuring food security. (1,2 goals);
- II. of the population health - health provision (objectives 3 and 5);
- III. Education processes quality to increase directed (4th goal);
- IV. Ecological goals (goals 6, 7, 13, 14, 15);
- V. Economical growth and worthy work conditions create (7,8,9 targets);
- VI. Inequality and injustice prevention get (objectives 10, 11, 12, 16, 17).

This is its goals Republic stable development providing the country developed countries from the line place to get providing gives.

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## NIGER DELTA DEVELOPMENT CRISIS AND INFRASTRUCTURAL PROVISIONS IN THE OIL PRODUCING AREAS OF NIGERIA, 2009-2017

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### ABSTRACT

*The study interrogates the Niger Delta development crisis and infrastructural provisions in the oil producing areas of Nigeria, 2009-2017. Data were generated using the documentary and survey methods. Findings revealed that the federal government interventionist structures are products of ethnic power calculation and not only elitist in nature but also specifically designed to protect the oil and gas interest of the elites of the dominant ethnic groups. This largely explains why the agency is under the tight control of the Presidency and its commissioners, politically appointed (mainly members of the ruling party). Invariably, NDDC like its predecessor is constrained by the placement of politics before the development agenda of the region. The study calls for the Commission to carry out a comprehensive review of their projects to determine their status. Where contracts have been abandoned, contractors should be prosecuted to enable the commission recover advances to them. Where a contractor deliberately delays a job with intention of obtaining price variation, such contractor should be made to deliver on the old agreed price or the contract should be cancelled and re-awarded.*

**KEYWORDS:** Crisis, Government interventions programmes, Infrastructure development, Human Development, Niger Delta.

### INTRODUCTION

Several studies have been carried out on the Niger Delta development crisis and the forces that have subverted government efforts at development. Dike (1986), presents a historical account of the British merchants and how the colonial administrations through their activities and policies laid the foundation for the underdevelopment of the region. According to him, the British came to the Delta for three main reasons: the search for raw materials, the need for cheap labour and the need to secure the market for their finished goods. These activities were detrimental to the subsequent development of the region. Ikimi (1969) locates the crises between the major ethnic groups in Western Delta in the policies of the colonial state. His work reveals that before the advent of colonial rule, the major ethnic groups had mutual relations, the discord and acrimony between the major ethnic groups resulted from their quest to regulate the price of palm oil, the major export during this period. The unending crises have tremendously retarded the development efforts of the State. Relatedly, Alagoa (1964) further reveals how the British disrupted the traditional, social and economic system of the region with its imperial forces. The British also subdued pocket of resistance in the region in a bid to protect its economic interest. This laid the foundation of the underdevelopment and poverty of the Niger Delta.

The preceding works suggest that the British trading companies and colonial state laid the basis for the Niger Delta Development crisis and the failure of State efforts. However, all of the studies seem to neglect the internal make-up of the communities. None of them examined the role played by local traditional allies who for their selfish interest collaborated with the Europeans to exploit their communities and their roles in sustaining the structure of underdevelopment laid by the Europeans, despite the efforts of the State.

It is from the foregoing background that Omoweh (2007) contends that although the colonial government as well as the trading companies put in place the modalities for capitalist exploitation and initiated the forces of underdevelopment, Shell Development Company and other multi-national companies concluded the process of the underdevelopment of the Niger Delta. He asserts that there is an intricate linkage between the relative reckless manner in which crude oil is explored and produced, the degradation of the environment of the Niger Delta host communities and the contemporary increasing incapacity of the people to reproduce themselves. This lies at the heart of the Niger Delta development crisis and failure of the State to initiate development in the region.





Chokor (2000) goes beyond the physical environment and attempts to integrate the environment with the social and economic forces in explaining the Niger Delta development crisis. He opines that in stratified societies there is likely to be a flow of surplus in favour of areas with political and economic power. He notes the existence of two fundamental structures which articulate the appropriation of the region's resources. First, there is the social structure defined by a set of federal rules and regulations which provides the basis for the exploitation of oil and gas resources and the physical structure consisting of the network of oil wells, pipelines, flow station and production terminal. These structures have been the bane of development efforts in the delta

Ekuerhareye (2004) in its contribution to the Niger Delta development issue and the State inability to initiate development gives a unique characterization of the Niger Delta. To him the region has increasingly emerged as a distinct social, economic and political formation characterized by huge resource extraction from it to the rest of the world and recycled for the development of the Nigerian people and communities minus the people and communities of the Niger Delta. Ekuerhareye also examines the nature of the Nigerian federalism *vis-a-vis* the development crisis in the region and observed that the crude oil era has been marked by extreme concentration of fiscal resources in the hands of the federal government while the component units including the oil producing state have been compelled to depend on the central government for financing. This approach has failed to address practical development policy issues. Therefore, the current deepening crisis of underdevelopment and poverty in the region has been a manifestation of the pattern of petroleum resource exploitation and the resultant distorted and perverse fiscal federalism in Nigeria.

Paki and Ebienfa (2011) argued that, oil has paradoxically become a curse rather than blessing to regions it is produced in Africa, especially Nigeria's Niger Delta region due to corruption and lack of political will, among others on the part of national government to efficiently and effectively promote development in the region. This becomes apparent when we consider the failure of development intervention agencies in Nigeria over the years to achieve the aim for which they have been established in the Niger Delta.

Yusuf (2008) proposes that international human rights law, in particular, provides a working template for achieving desired positive ends in the relationship of the state, the local communities and the MNCs through the institutionalization of economic, social and cultural rights with the active participation of MNCs. He however, notes that the Nigerian state, as represented by the federal authorities, who control the nation's natural resources, has exhibited mixed reaction to the situation. It hovers between repression and pacification. Successive military regimes receive the greatest blame for the current state of under-development and violent conflict in the Niger Delta. He argued that the Niger Delta development issue is as a result of the continued denial of economic, social and cultural rights to the oil-rich communities in the area. The author argues that this denial happened with the complicity and acquiescence of the international community. The Nigerian government as well as multi-national corporations operating in the area has not been responsive to the development needs of the people. Yusuf, (2008, p.105) concluded by noting that:

The operation and maintenance of rural infrastructure, within the entire rural development policy in Nigeria are faulted due to the technocratic reformist strategy of the state. Confronted with disparities in the provision of infrastructural facilities or utilities, the poverty-stricken rural masses have continued to migrate en mass to urban center; thus turning the policy into a colossal exercise in futility. Hence the key to success to curtail mass exodus and its accompanying consequences in the society, efforts should be geared for a pragmatic approach where all levels of the community are actively and psychologically involved to participate in every aspect of development schemes like planning, financing and maintenance. Furthermore, the conventional and erratic approach to rural development in Nigeria through the politics of provision of agricultural infrastructures should be shifted by recognizing the rural dwellers as equally and properly entitled to all components of social, institutional and physical infrastructures so as to stamp out the provocations and temptations of rural drain. The continuing trend of encroaching peasant land by the big armchair farmers should also be halted.

Studies have shown that infrastructure development is the basis of measuring the performance of democratic leaders and it is the foundation of good democratic governance. In this regard, as an agent of transformation and in accordance with government's ideology of development, the government intervention agencies assume wider roles in distribution, operation and maintenance of infrastructure, which is fundamental for rural development. It was in this sense, that the Willinks Commission Report, set up to ascertain the fears of domination expressed by the minorities in pre-colonial Nigeria, recommended the establishment of a Board to cater for the development needs of the Niger Delta, described as "poor, backward and neglected". The Willinks Commission Report declared the Niger Delta as a special area for development, and further noted that:

we cannot recommend political arrangement which would unite in one political unit the whole body of Ijaws; we do however consider that their belief that their problems are not understood could be largely met without the creation of a separate state, which we have rejected... the declaration of the Ijaw country as a special area would direct public attention to a neglected tract and give the Ijaws an opportunity of putting forward plans of their own for improvement (Willinks Commission Report, 1958, p. 95)



According to Ibaba (2005), the government eventually responded to the Willink's Report's recommendation by setting up the Niger Delta Development Board (NDDDB) in the immediate post-independence. The main function of the Board was to advise the governments of the Federation, Eastern and Western regions, with respect to physical development of the Niger Delta.

Etekepe, (2007) outlined responsibilities/the functions of the Board to include : (1) Causing the Niger Delta to be surveyed in order to ascertain what measures are required to promote its physical development; (2) Preparing schemes designed to promote the physical development of the Niger Delta together with the scheme into effect, and (3) Submitting to the Government of the Federation and the Government of Eastern and Western, Nigeria annually, reports describing the work of the Board and the measures taken in pursuance of its advice .

Ibaba, (2005) noted that the Oil Mineral Producing Areas Development Commission (OMPADEC) was created to direct the 3 percent of the Derivation Funding Principle for the specific and particular development of the oil producing communities by Decree No.23 of 1992, to succeed the Presidential Committee. Ibaba, (2005, p.116) noted that the fundamental objectives of OMPADEC were:

- (i) the rehabilitation and development of oil producing areas;
- (ii) the tackling of ecological problems that have arisen from the exploration and exploitation of oil minerals;
- (iii) to identify...the actual Oil Producing Areas and embark on the development of projects properly agreed on with the local communities of Oil Producing Areas; and
- (iv) to tackle the problems of oil pollution.

However, OMPADEC also failed to actualize the developmental aspirations of the oil producing Niger Delta as it was entangled by structural defects, financial imprudence, contract proliferation, and lack of goodwill from major ethnic groups in Nigeria, faulty project ideas, maladministration and lack of funding, nepotism, corruption and faults in implementation strategy. According to *World Bank Report* (1995, pp. 53-54):

OMPADEC only provides infrastructure or equipment. For example, it builds health centers but does not support staff for them. The obvious problem with such a development programme is that, the communities may not have the funds or expertise to maintain a project and watch it break down.

As the *OMPADEC Quarterly Review* (1993) noted, what is clear is that the types of projects executed, and the beneficiaries of contracts, did not promote the interests of the oil producing communities; but the operators of the state, the Committee members and their collaborators. It also, suffered from lack of focus, inadequate and irregular funding, official profligacy, corruption, and excessive political interference, lack of transparency and accountability, and high overhead expenditure.

Claims have been made in some quarters that a cost of one kilometer (1km) road elsewhere in the country will be five times for the same distance in the Niger Delta. The same applies for every other project in the region. It is based on this that government's funding has been described as a balm that can only at best soothe the wounds of the people. Commenting on the insignificance of ₦241.5 billion gotten by NDDC from 1999 to 2006, Timi Alaibe cited in Ero, (2007, p. 61) avers that:

This may sound like a huge sum at face value, but if this is distributed among nine states, with projects into the most difficult and challenging terrain, this comes to about ₦27 billion per state for that period, or about ₦4.4 billion per state per year. This is far below what we need because of the enormity of development needs, from physical infrastructure to empowerment programmes.

There is a merit in the argument that difficult terrain requires more money for its development. This has been a plausible defense in justification for the Commission's underachievement with the resources available to them. The underneath fact remains that these officials standing on the pedestal of difficult terrain inflate projects costs to generate kick backs. The government indebtedness to NDDC by the end of President Obasanjo's tenure in 2007 of over ₦300 billion, notwithstanding, Agbo (2007, p. 23) was not wrong to argue that:

From 1999 to 2007, over ₦3 trillion flowed from the Federation Account to the Niger Delta. Seventy percent of this went to the state governments, twenty-two percent to local governments and eight percent to NDDC. From available data, what NDDC did with its eight percent is more visible than what was done with 92 percent between the state and the local governments.

Obagbinoko (2009) notes that one of the latest in the series of attempts by government to address the injustice in the Niger Delta is the establishment of the Niger Delta Development Commission (NDDC). The establishment of the Commission was consummated by the enactment of the NDDC Act of 2000. The activities of the Commission have revealed the perfunctory approach and noncommittal attitude of government towards addressing the problem of the Niger Delta Region.

Contributing, Alphonsus and Mohammad (2015) reveal that the Niger Delta Development Commission (NDDC) is set up by the Federal Government of Nigeria in 2000 with a mandate to facilitate the rapid, even and sustainable development of the Niger Delta. To this end, the authors evaluate the socio-economic impact of the Commission's projects on roads, water and electricity in



Ohaji/Egbema, Oguta and Obowo communities in Imo State Nigeria. There have been lots of Niger Delta Development Commission projects in the Niger Delta and Imo state as a state in the NDR has benefitted from these projects right from the inauguration of the Board of NDDC in 2001.

### THE PROJECTS OF THE NIGER DELTA DEVELOPMENT COMMISSION

The NDDC sees to the implementation of its mandate by executing relevant projects in the oil producing areas of Nigeria. The projects are conceptualized, designed, and executed based on extensive consultation with locals, input from interested parties and critical analysis by experts. They are awarded based on their ability to give maximum impact to the local region and beyond the constraints of allotted budget. Tables 7 and 11 illustrate the typical projects and programmes embarked on by the Commission. While some have been completed, a large number of them were reported to be on-going. The projects include: education which encompasses books, scholarship and infrastructures; health including drugs, medical professionals and hospital infrastructures; transportation including mass transit on roads and waterways; road infrastructures such as bridges, landing jetty and land reclamation; electrification projects; skill acquisition and youth development; agricultural development programmes; security and logistics projects; environment and waste management; portable water projects, among others (NEITI, 2017). Tables 5 to 9 below present the breakdown of the NDDC projects between 2012 and 2016.

**Table 1: Project Specific Breakdown in 2012**

	CONTRACT SUM	ADVANCE PAYMENTS	TOTAL IPC PAYMENTS	OUTSTANDING COMMITMENT	MOBILIZATION RECOVERED	OUTSDING RETENTION	CUMULATIVE PERMANENT WORKS
	N'000	N'000	N'000		N'000	N'000	N'000
GRAND TOTAL							
JETTY/EROSION RECLAIM	17,904,520	5,090,238	5,735,782	7,078,500	3,085,144	381,186	9,159,539
ROAD & BRIDGE	59,765,720	17,796,052	16,297,389	25,589,801	12,433,929	867,446	28,921,236
ELECTRICIFICATION	4,643,810	2,040,068	402,929	2,200,813	94,912	12,329	539,903
WATER PROJECTS	1,518,305	378,745	581,273	558,287	259,100	28,814	848,987
EDU. INFRAST & DEV.	247,922	91,809	111,646	44,467	78,004	488	189,750
HOSPITAL & O/MEDICAL	49,103	10,439	27,888	10,776	8,214	781	39,585
AGRIC DEV. PROG	1,409,470	388,779	508,941	511,750	22,318	0	517,671
NDDC MASTER PLAN	32,000	16,000	16,000	0	0	0	32,000
OTHERS	396,631	60,726	306,478	29,427	17,500	0	338,078
	<b>85,967,480</b>	<b>25,872,856</b>	<b>23,988,324</b>	<b>36,023,821</b>	<b>15,999,121</b>	<b>1,291,043</b>	<b>40,586,750</b>

Source: NEITI (2017). *Report on Revenues, Deductions, and Analysis of Disbursement and Utilization of Funds of the Federal Beneficiary Agencies – Niger Delta Development Commission (NDDC)*

**Table 6: Project Specific Breakdown in 2013**

	CONTRACT SUM	ADVANCE PAYMENTS	TOTAL IPC PAYMENTS	OUTSTANDING COMMITMENT	MOBILIZATION RECOVERED	OUTSDING RETENTION	CUMULATIVE PERMANENT WORKS
	N'000	N'000	N'000		N'000	N'000	N'000
GRAND TOTAL							
JETTY/EROSION RECLAIM	5,330,304	1,309,097	1,685,050	2,336,156	565,432	94,016	2,274,562
ROAD & BRIDGE	7,051,895	1,100,147	1,827,559	4,124,188	527,260	101,058	2,474,939
ELECTRICIFICATION	145,750	132,519	11,246	1,985	52,924	0	64,170
WATER PROJECTS	337,985	28,379	276,036	33,570	12,572	6,929	292,109
EDU. INFRAST & DEV.	331,067	53,635	138,218	139,214	36,685	7,502	176,819
HOSPITAL & O/MEDICAL	1,253,342	0	1,252,346	996	0	0	1,156,643
AGRIC DEV. PROG	573,611	11,750	515,461	46,400	0	0	515,461
NDDC MASTER PLAN	182,699	27,405	27,037	128,257	0	0	40,296
OTHERS	1,751,206	0	1,751,206	0	0	0	1,751,206
	<b>16,957,859</b>	<b>2,662,933</b>	<b>7,484,160</b>	<b>6,810,766</b>	<b>1,194,873</b>	<b>209,506</b>	<b>8,746,205</b>

Source: NEITI (2017). *Report on Revenues, Deductions, and Analysis of Disbursement and Utilization of Funds of the Federal Beneficiary Agencies– Niger Delta Development Commission (NDDC)*

**Table 2: Project Specific Breakdown in 2014**

	CONTRACT SUM	ADVANCE PAYMENTS	TOTAL IPC PAYMENTS	OUTSTANDING COMMITMENT	MOBILIZATION RECOVERED	OUTSDING RETENTION	CUMULATIVE PERMANENT WORKS
	N'000	N'000	N'000		N'000	N'000	N'000
GRAND TOTAL							
JETTY/EROSION RECLAIM	8,328,187	1,177,228	1,483,870	5,667,089	207,420	39,132	1,679,730
ROAD & BRIDGE	60,109,544	9,159,095	9,747,055	40,135,283	2,997,045	626,100	13,439,302
ELECTRICIFICATION	934,283	68,391	632,268	233,625	43,534	11,997	682,981
WATER PROJECTS	190,377	19,753	101,422	69,201	7,636	4,216	109,798
EDU. INFRAST & DEV.	2,217,839	400,578	200,983	2,217,069	26,576	1,205	258,743
HOSPITAL & O/MEDICAL	217,176	0	217,176	0	0	0	217,176
AGRIC DEV. PROG	371,113	93,068	177,255	100,791	0	0	227,126
NDDC MASTER PLAN	49,835	7,475	0	42,360	0	0	
PROJ. SECURITY & LOGISTICS	105,252	15,788	64,716	24,748	13,887	4,058	81,154
OTHERS	787,200	50,992	566,828	178,040	16,999	2,460	571,413
	<b>73,310,807</b>	<b>10,992,368</b>	<b>13,191,574</b>	<b>48,668,205</b>	<b>3,313,098</b>	<b>689,167</b>	<b>17,267,423</b>

Source: NEITI (2017). *Report on Revenues, Deductions, and Analysis of Disbursement and Utilization of Funds of the Federal Beneficiary Agencies– Niger Delta Development Commission (NDDC)*

**Table 3: Project Specific Breakdown in 2015**

	CONTRACT SUM	ADVANCE PAYMENTS	TOTAL IPC PAYMENTS	OUTSTANDING COMMITMENT	MOBILIZATION RECOVERED	OUTSTANDING RETENTION	CUMULATIVE PERMANENT WORKS
	N'000	N'000	N'000		N'000	N'000	N'000
GRAND TOTAL							
JETTY/EROSION RECLAIM	20,106,755	3,572,437	2,248,608	14,285,710	482,965	22,899	2,748,699
ROAD & BRIDGE	98,720,630	14,621,724	12,152,221	71,797,300	2,554,684	746,754	14,981,020
HOUSING TOWN HALLS	683,678	102,552	0	581,126	0	0	0
ELECTRICIFICATION	4,013,809	521,395	769,280	2,723,134	90,780	45,038	868,395
WATER PROJECTS	2,977,826	503,077	422,612	2,052,137	88,818	25,881	517,444
EDU. INFRAST & DEV.	547,522	76,728	36,000	434,794	16,203	1,000	57,353
HOSPITAL & O/MEDICAL	1,223,713	94,331	594,841	534,541	0	0	594,841
SKILL ACQU/ YOUTH DEV.	995,000	149,250	0	845,750	0	0	0
PROJ. SECURITY & LOGISTICS	367,768	49,448	140,332	177,989	17,372	7,922	157,716
OTHERS	66,967,444	17,076,067	3,673,752	283,195	4,641	1,451	13,264,859
	<b>196,604,146</b>	<b>36,767,008</b>	<b>20,037,646</b>	<b>93,715,676</b>	<b>3,255,464</b>	<b>850,946</b>	<b>33,190,326</b>

Source: NEITI (2017). *Report on Revenues, Deductions, and Analysis of Disbursement and Utilization of Funds of the Federal Beneficiary Agencies– Niger Delta Development Commission (NDDC)*

**Table 4: Project Specific Breakdown in 2016**

	CONTRACT SUM	ADVANCE PAYMENTS	TOTAL IPC PAYMENTS	OUTSTANDING COMMITMENT	MOBILIZATION RECOVERED	OUTSTANDING RETENTION	CUMULATIVE PERMANENT WORKS
	N'000	N'000	N'000		N'000	N'000	N'000
GRAND TOTAL							
JETTY/EROSION RECLAIM	10,124,308	1,422,452	632,906	8,068,950	0	6,159	624,170
ROAD & BRIDGE	75,086,855	10,710,583	5,433,857	58,721,611	699,182	312,077	6,302,867
HOUSING TOWN HALLS	642,009	79,208	57,580	505,220	0	2,886	57,725
ELECTRICIFICATION	23,701,284	3,309,464	5,501,207	14,890,613	940,572	69,931	6,444,991
WATER PROJECTS	3,988,123	541,683	318,054	3,092,427	14,116	17,026	340,516
EDU. INFRAST & DEV.	791,754	33,438	436,396	178,683	146,205	502	439,760
HOSPITAL & O/MEDICAL	3,301,605	19,546	3,171,297	110,762	0	0	3,171,297
SKILL ACQU/ YOUTH DEV.	534,434	0	534,434	0	0	0	534,434
AGRIC DEV. PROG.	4,001,265	599,640	3,665	3,397,960	0	0	3,665
OTHERS	2,016,849	0	2,020,479	(3,630)	0	0	2,020,479
	<b>124,188,486</b>	<b>16,716,014</b>	<b>18,109,875</b>	<b>88,962,596</b>	<b>1,800,075</b>	<b>408,582</b>	<b>19,939,903</b>

Source: NEITI (2017). *Report on Revenues, Deductions, and Analysis of Disbursement and Utilization of Funds of the Federal Beneficiary Agencies– Niger Delta Development Commission (NDDC)*



**Table 5: The Project Performances Analysis of the NDDC State Projects, 2007 - 2015**

Year	2007		2009		2011		2013		2015		CUMMULATIVE 2007-2015		Percentage
	CONTRACT AWARDED	WORK CERTIFIED	CONTRACT AWARDED	WORK CERTIFIED	CONTRACT AWARDED	WORK CERTIFIED	CONTRACT AWARDED	WORK CERTIFIED	CONTRACT AWARDED	WORK CERTIFIED	CONTRACT AWARDED	WORK CERTIFIED	
STATES	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	N'000	
Abia	975,214	755,354 (77%)	29,996	29,996 (100%)	4,357,824	374,848 (32%)	3,484,125	209,509 (6%)	2,533,816	171,800 (7%)	11,380,975	2,541,506	22%
Akwa - Ibom	5,185,700	3,558,106 (69%)	4,860,659	1,338,611 (69%)	8,232,797	3,316,443 (69%)	9,396,995	1,615,623 (17%)	22,719,802	564,630 (2%)	50,395,953	393,413	19%
Bayelsa	49,445,344	21,838,312 (44%)	5,371,429	2,334,013 (43%)	9,322,133	3,516,748 (18%)	11,432,860	2,991,975 (26%)	2,914,250	845,504 (29%)	88,486,017	31,526,552	36%
Cross-River	481,873	515,173 (107%)	35,940	4,803 (97%)	3,377,107	537,375 (16%)	1,567,730	288,636 (18%)	2,717,233	179,014 (7%)	8,179,882	1,555,000	19%
Delta	1,648,012	1,365,428 (83%)	541,009	351,557 (65%)	1,662,473	764,760 (46%)	31,909,438	2,170,709 (7%)	24,060,651	2,894,308 (12%)	59,821,583	7,546,762	13%
Edo	433,596	277,582 (64%)	359,789	311,983 (87%)	4,839,758	2,647,427 (55%)	5,841,727	105,041 (2%)	8,321,953	601,091 (7%)	19,796,823	3,943,123	20%
Imo	461,301	158,634 (34%)	119,231	118,458 (99%)	3,067,466	1,616,010 (53%)	18,709,530	2,128,576 (11%)	13,913,577	1,070,762 (8%)	36,271,106	5,092,441	14%
Ondo	309,143	9,047 (3%)	1,692,713	654,264 (39%)	1,255,477	65,520 (5%)	20,791,420	412,255 (2%)	3,106,013	760,969 (24%)	27,154,765	1,902,055	7%
Rivers	21,287,508	11,127,460 (52%)	609,577	501,220 (82%)	25,673,993	3,232,898 (13%)	33,470,615	9,537,998 (28%)	28,476,783	2,849,780 (10%)	109,518,475	27,249,357	25%

Source: NEITI (2017). *Report on Revenues, Deductions, and Analysis of Disbursement and Utilization of Funds of the Federal Beneficiary – Niger Delta Development Commission (NDDC)*, p.38.



The projects and programmes profile of the Commission indicates that within the study period priority was placed on construction of roads and bridges, electrification and landing jetty/erosion/reclamation with the least emphasis on educational infrastructure and development, skill acquisition and youth development, water projects, hospital and other medical equipment, and Security and logistics and regional master plan. Table 11 presents project status and categories of project executed by the NDDC between 2012 and 2014, while Table 12 shows state by state summary of NDDC development projects since Inception.

**Table 6: Projects Status Summary and Project Categories Report, 2012-2014**

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	Project type
Project Type	No of Projects awarded in 2012	No. of projects awarded in 2013	No. of projects awarded in 2014	No. of projects above 90%	Total no. of projects completed	Total no. of projects commissionable	Total no. of projects commissioned	
Bridge	-	2	0	1	1	0	0	Physical infrastructure
Building	402	15	0	328	294	133	138	Physical infrastructure
Canalization	9	9	0	-	-	-	0	Physical infrastructure
Electrification	30	24	2	29	14	49	46	Social infrastructure
Flood control	1	-	0	1	1	1	0	Physical infrastructure
Jetty	41	6	0	32	32	16	11	Physical infrastructure
Road	40	17	2	25	19	14	4	Physical infrastructure
Water	51	25	2	38	77	34	21	Social infrastructure
Total	574	98	6	454	438	247	220	

Sources: NEITI, 2014; Niger Delta Development Commission (NDDC), Project File, 2014. p. 5.

**Table 7: State by State Summary of NDDC Development Projects since Inception**

	ABI	AKS	BYS	CRS	DEL	EDO	IMO	OND	REG	RIV	TOT
<i>Roads/Bridges</i>	224	390	306	186	721	251	319	153	54	925	<b>3,520</b>
<i>Jetty/Shore Protection</i>	0	2	64	5	91	1	1	23	21	56	<b>264</b>
<i>Canalization/Reclamation</i>	1	5	40	0	120	0	9	13	7	10	<b>205</b>
<i>Electricity/Power</i>	152	237	165	96	317	89	101	218	10	189	<b>1,574</b>
<i>Water Supply</i>	92	184	125	65	180	110	85	122	1	209	<b>1,173</b>
<i>Buildings</i>	98	276	184	63	229	174	175	252	49	207	<b>1,707</b>
<i>Flood control/Erosion</i>	1	7	2	9	4	9	1	0	4	1	<b>38</b>
<i>Equipping/Furnishing</i>	0	8	2	6	13	1	3	1	13	21	<b>68</b>
<b>TOTAL</b>	<b>568</b>	<b>1,109</b>	<b>888</b>	<b>430</b>	<b>1,675</b>	<b>635</b>	<b>694</b>	<b>782</b>	<b>159</b>	<b>1,618</b>	<b>8,558</b>

Source: NDDC (2016), p.16.



The foregoing information shows government intervention efforts aimed at addressing the infrastructural challenges in the oil producing areas of Nigeria within the study period. It is evident that the major focus was on physical infrastructure. While social infrastructure was undermined, institutional infrastructure was completely neglected. We proceed now to examine how the NDDC projects have impacted on infrastructural development in the oil producing areas of Nigeria within the study period.

### ADEQUACY OF INFRASTRUCTURE IN THE OIL PRODUCING AREAS OF NIGERIA, 2009-2017

The NDDC, as an interventionist agency, is meant to address decades of social and infrastructural underdevelopment in the oil producing areas of Nigeria. However, if underdevelopment, as Ekanem (2001, p. 53) has defined, is “inability, failure, refusal or structural prevention of a people to use existing mental, physical, and material resources available to society at a given time and space to bring about qualitative and quantitative improvement in standard of their lives” then the oil producing areas, despite numerous projects provided by the NDDC, is roundly underdeveloped socially and economically.

The available social development indicators in the oil producing areas of Nigeria point to inadequate, unavailable and poor quality infrastructure and social services, from water to telecommunication. The historical neglect of the region’s development poses a steep barrier to attaining socio-economic transformation and poverty alleviation (NDHDR, 2006). In the oil producing areas of Nigeria, the situation is similar to that at the national level. Except for Rivers and Bayelsa States, where poverty incidence seems to have stabilized at around 44% after an initial jump from 7%, poverty incidence declined between 1996 and 2004 (UNDP, 2006). Poverty has become a way of life due to economic stagnation; agricultural underdevelopment from soil infertility; unemployment; poor quality of life due to shortages of essential goods, facilities and money; isolation and poor communication; government insensitivity; unhealthy environment and malnutrition. Such conditions influence most members of the affected areas because it is not only income poverty that is the problem but also lack of access to social and physical infrastructure.

As poverty bites harder in the oil producing areas of Nigeria and concrete development retard rather than progress, so is basic amenities lacking. The status and availability of social services are low, despite the areas performing better than the national average in terms of poverty rates. Houses in the areas are usually of poor quality, e.g., mud-walled houses with a stilt foundation (UNDP, 2006). School and health care facilities are severely deteriorated, and there are shortages of qualified teachers and basic health services. Critics, such as UNDP have expressed concern that the oil producing areas of Nigeria have suffered neglect, particularly inadequate infrastructure at the hands of the government as well as the multi-national oil companies (UNDP, 2014). We proceed now to examine in details the challenges of inadequate infrastructure in the oil producing areas.

### WATER SUPPLY

Data from the National Bureau of Statistics reveal that water in the majority of oil producing areas comes from unsafe supply facilities, including rivers, lakes or ponds, unprotected wells and boreholes. The Bureau classifies available sources of potable water for household consumptions as: pipe borne, untreated pipe, borehole, protected well, unprotected well, river/lake/pond, vendor trucks and other categories (see table 13 below). In five of the nine oil producing states, Akwa Ibom, Bayelsa, Cross River, Ondo and Imo-water problems are very acute and result in supplies of unsafe water in more than 50% of the cases. Therefore, poor access to adequate drinking water has had serious implications for the general health, environment, economic activity and sustainable livelihoods of people in the areas.

**Table 8: Sources of Water to Households in the Niger Delta**

State	Pipe-borne	Untreated Pipe	Protected Well	Unprotected Well	River Lake, pond	Vendor trucks	Other	Safe	Unsafe	Total
A’Ibom	7.37	5.36	33.48	-	9.15	31.92	0.22	12.50	46.21	53.79
Bayelsa	7.49	2.17	4.11	-	8.21	76.09	0.72	1.21	13.77	86.23
C/River	2.43	0.88	19.25	0.44	14.38	31.64	-	30.97	23.01	76.99
Delta	2.89	1.84	31.32	16.05	26.05	20.53	0.26	1.05	52.11	47.89
Edo	9.70	1.21	28.89	19.19	10.51	24.24	4.85	1.41	58.89	41.01
Rivers	12.42	4.04	23.60	10.25	31.99	16.15	-	1.55	50.31	49.69
Ondo	5.97	1.12	16.04	19.4	7.09	50.0	0.37	-	42.54	57.46
Imo	6.15	2.69	30.77	4.62	11.54	30.38	4.62	9.23	44.23	55.77
Abia	3.38	2.54	54.95	0.23	1.80	34.91	0.45	0.68	62.16	37.87
Mean	6.40	0.93	27.00	10.02	13.41	35.10	1.64	7.32	43.69	56.31
Nigeria	13.56	2.43	17.27	17.21	19.64	24.12	3.31	2.40	50.52	49.48

Source: National Bureau of Statistics (2016).





## TRANSPORT

According to the UNDP's Niger Delta Human Development Report (NDHR), (2006), most Niger Delta roads are in bad state of disrepair. Efforts by local government authorities to repair the roads have worsened them and left the local people with more hardship. Although urban road transportation development has been accorded some priority (NDDC Quarterly Report, 2016), less regard has been shown for rural transportation, especially water transport, which the majority of the rural populace depend on. Some roads have so many death traps that motorists avoid them. Analysts refer to transport and communication in the area as a source of misery.

## TELECOMMUNICATION

The dearth of telecommunication infrastructure in the oil producing areas of Nigeria stifles the advancement of information technology and development as well as technical empowerment of the populace. Most rural communities are largely unconnected and completely unable to take advantage of modern trends in telecommunications and technology as tools for accelerated rural development. Available data show that the number of telephone lines (land lines) in the areas works out at about 38 per 10,000 people (NDHDR, 2006). Growth in the number of landlines has stalled in the last few years due to the introduction of the GSM (global system of mobile communication).

## POWER AND FUEL

Data from the National Bureau of Statistics (see Table 14) show that across the region, on average, only 34% of people use electrical lighting; 61% use kerosene or a lantern. Less popular sources of lighting are gas (1.2% on average), generators (1.5%), batteries (0.2%) candles (0.6%), firewood (1.8%) and others (1.2%). The general sources of household fuel are firewood, charcoal, kerosene, gas, electricity, and others. The modal fuel or primary energy source in the region is firewood (a mean of 73%), followed by kerosene (24.8%) and gas (1.2%).

**Table 9: Percentage Distribution of Sources of Light**

State	Kerosene	Gas	Electricity	Generator	Battery	Candle	Firewood	Others	Total
A'bom	71.5	1.7	22.1	0.5	0.2	-	3.7	0.2	100.0
Bayelsa	86.7	1.3	3.5	4.5	-	0.5	1.3	2.1	100.0
C/River	78.2	1.1	18.9	0.2	-	-	1.6	-	100.0
Delta	43.0	0.9	53.3	1.1	-	-	1.7	-	100.0
Edo	24.6	1.1	70.7	0.4	-	0.7	1.3	1.1	100.0
Rivers	77.6	2.5	18.3	2.9	-	-	2.2	2.5	100.0
Ondo	59.7	0.2	38.3	-	-	-	-	0.8	100.0
Imo	58.6	0.8	38.1	1.2	-	-	0.8	0.4	100.0
Abia	49.9	1.0	45.4	0.8	-	0.5	1.5	1.0	100.0
Mean	61.1	1.2	34.3	1.5	0.2	0.6	1.8	1.2	100.0
Nigeria	62.5	1.1	31.6	0.5	0.1	0.2	3.5	0.6	100.0

Source: National Bureau of Statistics (2016).

## HOUSING

Housing in the oil producing areas of Nigeria is predominantly of poor quality, especially in the swamps and creeks where dwellings are made up largely of mud walls, and stilt or strip foundations. A survey of 40 locations by the Niger Delta Environmental Survey (NDES) that included Warri, Port Harcourt and Sapele revealed that 30.4% of houses had mud walls, 53.8% had corrugated – iron sheet roofing, and 46.6% had a strip foundation. Flooring materials vary widely, but are predominantly concrete followed by mud.

**Table 10: Type of Housing Construction by Households**

State	Mud	Cement	Burnt Bricks Or Concrete	Stone	Iron sheets	Others
A'Ibom	32.96	49.44	0.67	2.67	0.45	13.81
Bayelsa	33.73	41.20	1.45	0.48	3.86	19.28
C/River	61.06	35.18	0.88	0.66	1.33	0.88
Delta	17.06	68.77	3.67	0.79	0.26	9.45
Edo	17.98	76.97	4.04	0.20	0.20	0.61
Rivers	24.53	58.70	2.48	0.93	0.93	12.42
Ondo	56.34	35.45	2.24	0.37	0.37	5.22
Imo	11.54	76.92	2.31	1.54	-	7.69
Abia	11.24	82.47	2.47	0.22	-	3.60



Mean	29.6	58.34	2.2	0.9	1.1	8.1
Nigeria	52.85	36.90	2.37	0.70	0.50	6.67

Source: National Bureau of Statistics (2016)

**Table 11: Housing Requirements Projection for 2007-2015**

State	2003	2007	2011	2015
Aba	50,895	60,693	72,378	86,312
Uyo	13,240	23,935	27,044	30,556
Yenagoa	6,561	11,862	13,402	15,143
Calabar	34,664	39,907	47,589	56,751
Warri	17,669	31,942	36,069	40,779
Benin	41,257	74,585	84,273	95,218
Owerri	15,672	28,331	32,012	36,169
Akure	17,561	31,748	35,872	40,531
Port Harcourt	71,575	85,354	101,786	121,382
Totals	269,094	388,357	450,425	522,841
Region:	1,630,717			

Source: Niger Delta Regional Development Master Plan, 2014/2015

Despite the huge amount of money claimed to have been expended on building, it is seen from Table 16 above that Housing Requirements Projection for 2007-2015 was one million, six hundred and thirty thousand, seven hundred and seventeen (1,630,717) housing units, still needed.

## EDUCATION

Statistical estimates have put the proportion of children attending primary school at 80% (which compares favourably with the estimated national average of 54%) (NDHDR, 2006, p. 32). But across the oil producing areas, nearly all school facilities are in a state of extreme disrepair, requiring major rehabilitation. The secondary school systems has been seriously afflicted by shortages of quality teachers, a regional pattern is becoming increasingly acute due in large part to discordance between investments in infrastructure outside a well-coordinated planning process. While 76% of Nigerian children attend primary school, in the areas, the figure drops appallingly to between 30 and 40%. Revealing the immense challenge to development and provision of social amenities for sustainable livelihoods, an NDES report (2003) noted that in some of the oil producing areas, covering some 30,000 square kilometers and an estimated eight million people, there were only 2,169 primary schools. This implied one primary school per 3,700 people serving an area of 14 square kilometers, and one school for every two settlements. For secondary schools, the ratio is one school per 14,679 people serving an area of 55 square kilometers, and one school for every seven settlements.

## HEALTH AND HEALTH SERVICE DELIVERY

Due to dismal health and health service delivery, hospitals, clinics and primary health care centers; and a lack of effective operational plan for holistic health management, the majority of Niger Delta communities living in isolated areas lack the most basic modern medical care, including first aid. There is also the absence of formal health care services in much of the hinterlands (the NDDC Regional Master Plan, 2014/2015). According to an NDES (2003) report on primary health care, there is a ratio of only one health care facility for every 9,805 people, with the average facility serving an area of 44 square kilometers. There is one facility for approximately every 43 settlements. The numbers worsen for secondary health care. There is only one facility for every 131,174 people, serving an area of 583 square kilometers. A single facility serves an average of 48 settlements.

Poor access to health care reduces people's quality of life and increases their poverty. To illustrate, available figures show that there is one doctor per 82,000 people, rising to one doctor per 132,000 people in some areas, especially the rural areas, which is more than three times the national average of 40,000 people per doctor. Only 27% of people in the Delta have access to safe drinking water and about 30% of households have access to electricity, both of which are below the national averages of 31.7% and 33.6%, respectively. Only 6% of the populations of the oil producing areas have access to telephones, while 70% have never used a telephone (NBS, 2016). For added measure, apart from a Federal Trunk B road that crosses Bayelsa State, the State has only 15 kilometres of tarred road. Poverty remains widespread, worsened by an exceptionally high cost of living created by the petro-economy.

Given the social and economic conditions described above, it is of interest, considerably, to see how the oil producing areas of Nigeria fares on human welfare indices. The incidence of poverty in the areas has been on the increase since 1980 (see Table 17). Except for Rivers and Bayelsa States, where poverty incidence seems to have stabilized at around 44 per cent after an initial jump



from seven per cent, the poverty level increased between 1980 and 1996, but declined between 1996 and 2015 in line with the national estimate.

**Table 12: Incidence of Poverty in the Niger Delta, 1980-2015**

	1980	1985	1992	1996	2015
Abia	14.4	33.1	49.9	56.2	22.27
Bayelsa	7.2	44.4	43.4	44.3	19.98
Cross River	10.2	41.9	45.5	66.9	41.61
Delta	19.8	52.4	33.9	56.1	45.35
Edo	19.8	52.4	33.9	56.1	33.09
Imo	14.4	33.1	49.9	56.2	27.39
Ondo	24.9	47.3	46.6	71.6	42.15
Rivers	7.2	44.4	43.4	44.3	29.09
Nigeria	28.1	46.3	42.7	65.6	54.4

**Source:** National Bureau of Statistics (2016).

What is evidence from the foregoing is that several Federal Government initiatives including the NDDC have so far failed to address the fundamental problems of exclusion, deprivation and marginalization, which have thrown up the crisis of development in the region. The fact is that most of the Federal Government interventionist policies, actions and structures were not based on the understanding that the issues at stake in the oil producing areas of Nigeria are interwoven, multidimensional and complex. No simplistic and palliative measures can in any way resolve such structural and fundamental issues.

The point being made is that the NDDC has not recorded meaningful improvement in the welfare of the oil producing areas. As presently constituted, the NDDC gives room for financial misappropriation and this is one of the strong factors fuelling the continuing crisis of youth restiveness and resistance against the Nigerian state. Like the previous developmental agencies, the Commission has been highly incapacitated in addressing the myriad of developmental challenges in the region. For the most part, the legacy of these schemes translates into a picture of missed opportunities, low value for money and, not least, enormous disappointment for the oil producing states whose hopes and aspirations have been raised and then repeatedly shattered (Ayapere, 2015).

These Federal Government interventionist structures, to say the least, are products of ethnic power calculation and therefore not only elitist in nature but also specifically designed to protect the oil and gas interest of the elites of the dominant ethnic groups. This largely explains why the agency is under the tight control of the Presidency and its commissioners, politically appointed (mainly members of the ruling party). Invariably, NDDC like its predecessor is constrained by the placement of politics before the development agenda of the region.

## CONCLUSION

The Niger Delta development debacle can be situated within the locus of the character of the Nigerian State and those at the head of it. Within this ambit; all efforts have been directed at the conventional practice of treating the symptoms of underdevelopment and poverty instead of arresting the root cause. Hence the approaches of various development intervention agencies have been mainly palliatives. The study calls for the Commission to carry out a comprehensive review of their projects to determine their status. Where contracts have been abandoned, contractors should be prosecuted to enable the commission recover advances to them. Where a contractor deliberately delays a job with intention of obtaining price variation, such contractor should be made to deliver on the old agreed price or the contract should be cancelled and re-awarded.

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## FORMATION AND DEVELOPMENT OF THE UZBEK NOVEL

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### ANNOTATION

*The article discusses the main periods of the formation and development of the Uzbek novel. The Uzbek novel played an important role not only in the artistic and aesthetic development, but also in the socio-political growth of the Uzbek people.*

**KEY WORDS:** *literature, folklore, people, formations of development.*

Uzbek literature is the immortal creation of the creative genius of the Uzbek people, the artistic history of their life, the brightest embodiment of their freedom-loving aspirations and aspirations, love for the motherland. By "Uzbek literature" we mean the literature of the Uzbek people, written primarily in the Uzbek language.

In the formation and development of the Uzbek novel, a huge role was played by the main historical factors, which include: reality; folklore tradition; written literature; as well as the influence of world romance, primarily Russian romance.

The Uzbek novel played an important role not only in the artistic and aesthetic development, but also in the socio-political growth of the Uzbek people.

Scientific studies of many scientists show that foreign literature, including Russian, played an important role in the formation and development of the novel genre in Uzbek literature.

Separate translations of the works of Russian classics appeared - A. S. Pushkin, L. Tolstoy, I. A. Krylov, which undoubtedly influenced the work of leading representatives of Uzbek literature. The works of A.S. Pushkin, M. Lermontov, A. Chekhov, N. Gogol, I. Turgenev, L. Tolstoy, M. Gorky became the reference books of the Uzbek reader.

Uzbek novels on historical, historical-biographical, historical-revolutionary, military and modern topics were new discoveries in the cultural and aesthetic development of the Uzbek people.

The next most important source of the formation of the Uzbek novel is folklore. Uzbek novels were born under the influence of life itself, based on the experience of oral folk art and Uzbek written literature.

The study of many researchers has shown that the birth of the novel in classical literature is associated, firstly, with the appearance of verse epic poems (dastans), secondly, with the development of prose, and thirdly, is associated with the birth of realism.

Classic examples of epic poems in written literature "Farhad and Shirin" by the great Uzbek poet, thinker, statesman Alisher Navoi. Poetry-epic novels by Alisher Navoi, with their versatility, multi-problem, scale, epic, unity and complexity of plot and composition, harmony of language and style, contain features inherent in the genre of the novel.

The appearance of "Baburname" by the great commander, poet and statesman Zahiraddin Muhammad Babur is a new stage in the development of the epic genre after the work of Alisher Navoi. In this work of means and fiction, a bold step forward was made in the field of revealing the character of the characters, building the plot and composition, and organizing the conflict. It can be argued that it was in "Baburnam" that the foundation was laid for the creation of an epic work of historical and artistic prose.

"Baburname" as the first historical and biographical work in Uzbek literature opens the way to a novel with its epic, large-scale and multifaceted nature. The desire for a realistic depiction of reality manifested



itself in this work in the form of initial attempts to move from romanticism to realism.

The next stage on the way of creating a novel in the Uzbek written literature is associated with the names of Khamza Hakimzade Niyazi and Mirmukhsin Fikri.

Khamza Hakimzade Niyazi is an Uzbek poet, playwright, public figure, the first in the history of Uzbek literature to introduce the term "novel" into artistic use. It should also be emphasized that the writer, starting to create a "national novel", could not help but take into account the difficulties that his books had to overcome on the way to readers. Therefore, Hamza Hakimzade Niyazi tried to write in the "old style", simply. In addition, the skills of the author himself in writing a "novel" were "simple". This can also explain the weakness of the compositional structure of his novels.

In subsequent years, such writers as Mirmukhsin-Fikri and A. Kadyri deliberately chose the novel as the leading genre of their work.

In the 20s of the XX century Sadridin Aini acts as one of the founders of Uzbek and Tajik literature. Such works of the writer as the stories "Bukhara executioners", "Adina", "Kulbobo", the novel "Dokhunda" played an important role in the formation and development of Uzbek and Tajik realistic prose. S. Aini is an innovator in the use of national traditions, folklore and written literature.

A huge merit in the creation of a realistic novel in Uzbek literature belongs to Abdulla Kadiri. Kadyri's novels "Past Days" and "Scorpion from the Altar" were the first positive results of his searches in the creation of the Uzbek realistic novel.

In the process of working on the novel "Past Days" A. Kadyri had to overcome extraordinary difficulties, which were aggravated, in addition to the inexperience of the young prose writer, by the lack of established traditions in the field of novelistics in Uzbek literature. Nevertheless, we can safely say that it was with the novels of A. Kadyri that the formation of this genre in the history of Uzbek literature began.

Aybek's work "Navoi" is a historical and biographical novel, where the writer, having recreated the character of the historical personality of Navoi, revives a certain period of history.

In the historical novels of A. Kadyri, S. Ayni and Aibek, styles, depiction techniques are diverse,

historical material is different, but their common feature is a connection with our time; their common basis is the optimistic and humanistic ideas of the writers.

In modern Uzbek prose, the role of the military novel is growing every day. Observation shows that the birth and formation of Uzbek military novels refers to the period of the second half of the 50s and the first half of the 60s of the XX century. Putting these problems in the spotlight is a common feature of such novels as Sh. Rashidov's "The Mighty Wave", S. Ahmad's "Horizon", and H. Gulyam's "Tashkentsy".

Thus, at present, the novels of A. Kadyri, S. Aini, Aibek, A. Kakhkhar, Sh. Rashidov are not only read in different languages of the peoples of the world, but in their ideological and artistic qualities they become a model and have a beneficial effect on the literature of the foreign East.

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UDC 591

## RESULTS OF FAUNISTIC AND FLORAL INVESTIGATION OF THE DRAINED BOTTOM OF THE ARAL SEA

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### ANNOTATION

*The article discusses the results of a study of the fauna and flora of the dried bottom of the Aral Sea. The disappearance of the Aral Sea led to the formation of the Aralkum salt desert on the site of a dried bottom with an area of about 5 million hectares, 2.7 million hectares of which are located on the territory of Uzbekistan.*

**KEY WORDS:** *threat, system, biogeocenosis, ecosystem, landscapes, lake, island, analys*

The disappearance of the Aral Sea led to the formation of the Aralkum salt desert on the site of a drained bottom with an area of about 5 million hectares, 2.7 million hectares of which are located on the territory of Uzbekistan. This area is an unstable ecological system and poses a threat to both the environment and the health of the local population.

From 2017 to 2021, scientists of the Karakalpak State University named after Berdakh and the Karakalpak branch of the Center for the Prevention of Plague, Especially Dangerous Infections of the Ministry of Health of the Republic of Uzbekistan organized several joint expedition trips to the dry bottom of the Aral Sea.

Before the expedition, a task was set aimed at studying the state of the emerging biogeocenosis - zoocenosis, phytocenosis and edaphic factors, on the basis of which to give a scientifically based assessment of the natural resources of the dried sea bottom that has developed at the present stage of development for use in the national economy. Based on the analysis of the collected materials, give a scientifically based assessment of the environmental and epidemiological situation.

During the expedition, the southern part of the dried-up seabed adjacent to Zhylytyrbas Lake, the Terbenbes Upland, the territories of the Takhtakupyr, Karauzyak and Chimbay regions were examined. Here, along the dried bottom of the sea, they penetrated from Terbenbes up to 80-70 km to the

north and arched out to the northern edge of Lake Zhylytyrbas, 20-30 km north of it.

The expedition covered the territory from the city of Muynak (South) to Vozrozhdeniye Island (North) with a length of 220 km one way. At the same time, as the axial line of movement from south to north, they used the road made by oil and gas exploration drillers, laid out of stones and shells.

The distance traveled was measured according to the readings of car speedometers, which were clearly recorded when changing routes (biotopes) in the log. The zigzags of the center line roads were noted by the JPS instrument. Installed next to the front glass of a car, which were processed using an Internet program on a computer.

Each landscape (biotope) was filmed with a photo and video camera with a mark of the length in kilometers, a description of the relief, soil, vegetation and the number of animal species found in biotopes.

Every 30-50 km, depending on the nature of the landscapes, short lateral accounting landscapes (5-10 km) were laid with a description of the terrain and relief, soil, vegetation and animals encountered or their fresh traces, burrows, etc.

Recording routes were laid according to the method of zoological mapping of the territory for the settlement of terrestrial vertebrates (Tupikova, Komarova, 1979; Rudenchik et al., 1968; Asenov et al. 2002).



The main volume of work on the study of the territory inhabited by animals, covered with plants, was carried out on the territory of Vozrozhdeniye Island.

The territory of the Renaissance Island is mainly represented by a wavy plateau with solid soil overgrown with a dense vegetation cover - keureuk, buyurgun and wormwood, very rich in herbs of various types.

In some places there are whole plantations of astragalus occupying a significant area. The island is rich in flora and fauna. The main species are the red-tailed gerbil, yellow ground squirrel, the number of which in places reaches 5-10 animals per hectare. There are four-stripe snake, oriental boa, rhubarb plants, the size of one leaf reaches a length of 1 meter and wild poppy forming a plantation in some places, typical for the fauna and flora of Ustyurt.

During the expedition, the Muynak Peninsula was completely explored. The sands of the upland smoothed and fixed by shrubs and semi-shrubs are evenly covered with rare bushes of black saxaul, keireuk, buyurgun and wormwood, boyalych. The adjacent territories of the dried bottom are covered with a dense forest of saxaul, tamarisk, karabarak. The Muynak peninsula is evenly inhabited by red-tailed and midday gerbils, the number of yellow ground squirrels reaches 5-10-15 animals per hectare. The expedition obtained the following results in a short time:

- a huge area of the dried-up seabed in the area of Lake Zhylytyrbas - the Terbenbes highlands in the South and the territory between the Muynak Peninsula and the Vozrozhdeniye Island;
- very valuable information was obtained on the state of the soil cover, vegetation, and terrestrial animals for assessing the natural resources of the dried seabed;
- the difference in the complexes of flora and fauna in different parts of the territory of the dried bottom was revealed;
- collected material that paves the way for further work; collected information about the active formation and development of biogeocenosis, which forms the basis of the proposed Aralkum desert;

The results obtained give a scientifically based idea of the ecological and epidemiological

situation at the present stage of development of the natural environment of the Southern Aral Sea region.

Analysis of the results obtained by a scientific expedition allows us to draw the following conclusions:

1. The area of the dried bottom suitable for the development of plants and the settlement of terrestrial vertebrates in its Karakalpak part is about 70% of the territory.
2. The territory of the Vozrozhdeniye Island and the Muynak Peninsula is distinguished by the normal development of the vegetation cover. Open plains are evenly covered with keureuk, buyurgun and wormwood, where a dense population of red-tailed gerbil, yellow ground squirrel, many tolai hares, caraganka fox, traces of ungulates were found. There are separate areas of sand with a dense saxaul forest (tugai), wet, swampy places with small lakes in the form of a thick saline solution, where several coots and ducks, and shelduck are noted.
3. The southern part of the dried seabed is characterized by the predominance of typical psammophilic and psammophytic species of the great and midday gerbil, shaggy and comb-toed jerboa and sand boa, which are absent on the territory of Vozrozhdeniye Island and the Muynak Peninsula.

Thus, based on the above, it is important to organize and conduct monitoring studies to study the dynamics of the formation of these faunal complexes and draw up a program and plan for monitoring (stationary) observations on the dried bottom of the Aral Sea. And also on the dry bottom, it is necessary to expand the territory for conducting research work on the study of the bioecology of terrestrial vertebrates and higher plants.

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# FUNCTIONALISM, SOCIALISM AND FEMINISM IN EDUCATION

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## ABSTRACT

*The term Education has different connotation to different individual and has been interpreted through different philosophies and theories. The term has a dynamic nature. The narrow sense of education refers to a human being's formal education. The broader sense is applicable to the development of human consciousness and focuses on the greater cause of human beings. Education is a lifelong process that is all-encompassing. The world's great educators have defined 'Education' in various ways. Education is a way of life for some, a way of defining our consciousness and making the world a better place for others. This paper will explain how education is defined differently according to different theories – Functionalism, Socialism and Feminism by different educators and at the same time how their perspective is contributing to a social cause.*

**KEYWORDS:** *Functionalism, Socialism, Feminism, Education, Society*

## FUNCTIONALISM AND EDUCATION

According to functionalists, education is an important social tool for helping society meet its needs and maintain stability. We are all part of the same organism, and education serves to create a sense of identity by instilling core values and assigning roles (Diago, 2019). The initial history of education in Bengal is an excellent example of educational functionalism (Roy et al. 2023). The only way to break through the cultural conservatism that had taken over the society at the time was to promote education. It is important to consider how these reformers, like Vidyasagar and Raja Rammohan Roy, wisely incorporated traditional studies with western education (Adhikari & Saha, 2021a; 2021j). Imparting values through mythology (Adhikari & Saha, 2021b) and various forms of art (Adhikari & Saha, 2021g; 2022c), was also a common method of imparting education. Understanding the needs of society and addressing them via education was the goal of educating people through the arts, literature, theatre, and other forms of expression. True education, in the opinion of Swami Vivekananda, aids in preparing a person for the struggle for survival. A man's education prepares him for social service (Agarwal & Gupta, 2006). Swami has underlined that the human mind is infused with all information, whether it be secular or spiritual. It was shrouded in a cloak of mystery and ignorance. Education is a weapon for overcoming ignorance and darkness; knowledge will shine after getting education (Roy & Saha, 2021). Tagore was a tremendous advocate for education that fosters acceptance and empathy (Saha & Maji, 2012). He believed that education should help a person reach full manhood, letting all of his abilities to be completely developed for both his own personal greatness and the accuracy of the human community into which he was born. (Mondal & Gayen, 2021). The concept of an ideal setting, setting, instructor, and method were all part of Tagore's concept of the ideal education (Rayees & Dar, 2021). Kalam

talks about education as a medium to create morally upright individuals with knowledge and expertise. Children must be taught creativity and be raised to be intelligent citizens. Additionally, he emphasised the significance of pupils acquiring moral leadership and self-assurance in a variety of areas (Gayen et al, 2021; Pandit et al. 2016). Women educators have a long history in India; they have been viewed as committed and selfless, as well as rebellious and dangerous. Social reformers and educators like Pandita Brahmacharini Chandbai, Pandita Ramabai, and Durgabai Deshmukh advocated for equality and worked to educate women (Adhikari & Saha, 2021c).

## SOCIALISM AND EDUCATION

The goal of socialism in education is to help children acquire the traits and skills they need to solve issues in all facets of life (Griffiths & Millei, 2013). He saw education as a tool for promoting social, economic, and personal well-being on a global scale. Gandhi said that a lack of instruction in strong moral judgement is a major flaw in education (Subhranian & Raja, 2020). Education needs to be transformed to better serve the interests of the most vulnerable villagers rather than those of colonial exploitation (Hassan, 2021). If we are being truthful and sincere, citizenship education is a temporary endeavour. Children from cities or villages who receive a basic education are connected to everything that is best and long-lasting in India. Literacy by itself does not constitute education. The end or the beginning of education is neither literacy nor education. After hand education – the one talent that distinctly separates man from beast – literacy education should be prioritised. To be truly effective, education must bring out the best in both boys and girls. Proper education must be in line with the environment in order to promote healthy mass theory growth (Kalita, 2017).



## FEMINISM AND EDUCATION

According to feminists, society is patriarchal – that is, it is ruled by men. Moreover, feminists hold that gender conflict is the foundation of society. They contend that men have historically had more power than women and that women have historically been at a disadvantage in society. According to feminists, this is unjust and needs to be changed. There are numerous feminist views, but they all have one thing in common: they consider how society differs from one another (Shukla, 2022). Three notable female educators from three different times have received awards for their contributions to the advancement of western education. Through their quick work in education, Mary Wollstonecraft, Maria Montessori, and Nel Noddings have highlighted significant challenges pertaining to women and children's education (Adhikari & Saha, 2023). These three female professors had a passion for education despite being from different times and geographical locations. Wollstonecraft has fought for women's rights (Adhikari & Saha, 2022d, 2022e). Wollstonecraft has focused on education as an important agenda (Adhikari & Saha, 2022a). According to Nel Noddings, education is essential for the spread of compassion in society. She characterises education as a sequence of preplanned and impromptu interactions that foster development through the learning of expertise, abilities, comprehension, and appreciation (Adhikari & Saha, 2021d). Wollstonecraft has been vocally supporting the bigger cause of protecting human lives. She had witnessed the French Revolution first-hand and was therefore acutely aware of the necessity and urgency of liberty, equality, and fraternity (Adhikari & Saha, 2022b). One of the educators who fought for children's education, not only in the west but also in India was Maria Montessori (Adhikari & Saha, 2021f). Because all children learn differently, Montessori education takes into account all learning preferences. She also talks about, the guidance of the teacher and an individualised learning plan where students are allowed to move through the curriculum at their own pace (Adhikari & Saha, 2021e).

## CONCLUSION

Traditional and contemporary sources have been merged and are working together to create the ultimate culture of education for humanity. These sources are the basis for the philosophy of education's concept and notion. There are several factors that are not comparable when attempting to compare this component of schooling knowledge among the nations that make up this worldwide nation. Determining how social theories affect educational philosophies and how they might be used to interpret approaches and ideals was the goal of this article. The development of these philosophies was influenced by the culture and traditions of the society itself, demonstrating the effect of these ideologies in society. The society grows through development of each and every counterpart – men, women, children and nature. An imbalance in any of these counterparts would greatly hamper the prosperity of the society. Eminent educationalists have always propounded philosophies and have applied them in their own domain which emphasis the practical approaches to teaching and learning.

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# STUDENTS' PERCEPTION OF THE USE OF ICTS/INTERNET FOR LEARNING READING COMPREHENSION IN PUBLIC SECONDARY SCHOOLS IN OBIO/AKPOR LOCAL GOVERNMENT AREA OF RIVERS STATE

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## ABSTRACT

*The study investigated students' perception of the use of ICTs/internet in learning reading comprehension in public secondary schools in Obio/Akpor Local Government Area of Rivers State, using a descriptive research design. The instrument adapted for the study is the Students' Perception on ICT/internet Questionnaire (SPIIQ) developed by Pardede (2023), consisting of 23 items. Response on the questionnaire is based on likert scale of SA, A, D, and SD, of weights 4, 3, 2, & 1 respectively SPIIQ had reliability coefficient of 0.82, deemed adequate for this study based on its construct validity, face validity and coefficient of reliability obtained using test Re-test method and PPMC coefficient of reliability. Finding based on the descriptive statistical analysis of mean used on students response on questionnaire items indicate that students perceive the use of ICT/internet as important for reading comprehension; there is a positive impact on students reading ability when exposed to ICT resources, students perceive that ICT/internet instruction add value to their education. More so, students perceive self-efficacy in reading using ICT/internet. Based on these findings, it is recommended that teachers should make use of ICT resources in teaching reading comprehension in schools, students engagement time in ICT should be channeled towards acquisition of knowledge and ICT skills for educational purposes rather than leisure. Government should be proactive in providing ICT resources for instruction in schools.*

**KEY WORDS:** *ICT/internet; comprehension, reading, perception.*

## INTRODUCTION

Most studies on students' perception and adoption of ICT impact on academic performance are carried out in tertiary institutions despite the relevance and innovation of information and communication technology (ICT) globally. Jimoyiannis & Komis (2007) argued that students in tertiary institutions have wide application of ICT in various research need and accomplishment of tasks at an advanced level. Most universities have fully adopted ICT and recorded advancement in the application of ICTs for improvement of learning methods, research, teaching and development (Basri, Almadanu & Alandejani, 2017). Problems of ICT adoption in secondary schools, are due to difficulties of access and human capacity need in terms of teachers' professional development in ICT and ability to integrate technological resources as a means of instruction. However, the investigation on the adoption of ICT in higher education have focused only or aspects related to performances in education without emphasis on availability of resource materials for learning based on ICT or computer based mediated concepts across the students areas, variables such as infrastructure and faculty training of instructors.

The problems of access to ICT resources have been overcome by enormous wealth of online information and digital

collaboration opportunities. The need for the effective implementation of ICT based instruction have been made a policy in model secondary schools (Obaro and Joseph, 2015) Government has procured ICT facilities to boost viable and functional ICT driven education (Osakwe 2012) while in some states, the huge financial involvement in procurement and establishment of ICT resource center in secondary schools remain a mirage.

According to the FRN (2004), the prominent role of ICT in to advance knowledge and skills necessary for effective fund coming in the modern world. It is of great concern given the advantages of ICT adoption in school, that students in secondary schools would embrace the effectiveness of ICT in learning. This paper will investigate students' perception of the use of ICT/internet for learning reading comprehension in public secondary schools.

## BENEFITS OF ICTS TO STUDENTS' ACADEMIC PERFORMANCE

Osakwe (2012) highlighted the benefits of ICT/internet to students: ICT helps to promote fundamental changes in teaching and learning where students are provided with practical and functional knowledge of the computer, internet and can



intelligently acquire new knowledge. More so, Osakwe added that ICT facilitates students acquisition of skills and potential for active participation in teaching/learning process.

Engaging in ICT among students is capable of introducing the visual classroom experience where students actively participate in their knowledge acquisition meta-cognitively. However, despite the huge benefits of ICT, Emperor (2010) stated that factors such as lack of adequate ICT facilities are not resolved, there is a poor ICT policy implementation strategy, lack of ICT skills among teachers as prevalent in schools for example the Niger Delta areas of Bayelsa and River State.

### **STUDENTS PERCEPTION OF ICT/INTERNET FOR INSTRUCTION IN SCHOOLS**

According to Youssef and Dahmani (2008), the relationship between the use of ICT and students performance in higher instruction is not clear based on facts of contradictory results in literature. The impact of ICT indirectly influence such students,, characteristics and consequently the outcome of education. Several studies in economics, statistics, and performance in language studies carried out shows no evidence of relationship between increased educational use of ICT and students performance (Austine & Skidmore, 2005; Leuven et al., (2004) among others)

However, on the contrary ICT use has a positive impact on students performance, students learned more in less time and showed greater positive attitude when ICT-based instruction was included (Youssef and Dahmani (2008); Fuchs and Woessman, 2004). The potency, benefits, implications and challenges in introducing ICT into schools can be very different and depend on capabilities of school leadership, teacher characteristics, students receptive attitudes and educational environment. (UNESCO, 2003; Hanusek ,2003). Students perception at the secondary school level will depend largely on the effective implementation of policy and roles of schools leadership, students change of attitude, basic ICT literacy, teacher ease of access and affordability of ICT resource, materials environment and encouragement of parents.

The 2004 curriculum makes ICT courses compulsory for students of every grade, the knowledge of ICT application of technology in learning has failed due to teachers' beliefs, attitudes of ignoring ICT integration and skills in learning (Jimoyiannis & Komis, 2007). Students Perception are a crucial success factor in ICT integration into learning, many studies which investigated students perception are a crucial success factor in ICT integration into the learning. Many studies which investigated student perception reveal positive attitude towards ICT learning in English in various contexts. According to Pardede (2023) many students perceive that ICT warrants learning centeredness and learning autonomy as ICT enables tools like smart phones, tablet apps, computer software social

networking websites and online videos. Most of these studies were carried out in higher institutions, there is the need to investigate secondary school students perception and intensity use of the ICT for academic purposes.

### **PROBLEM OF THE STUDY**

ICT has become an important source of innovation and improvement of efficiency and a critical part of the learning process especially in higher institutions (Basi et al., 2018). Secondary school students take advantage of the global increase in ICT applications, awareness and accessibility in using smart phones, ipad, computer systems to increase their leisure time, online gaming and increased communication channels (Lauven et al, 2004). The introduction of ICT for concept delivery in learning in secondary schools is a candid policy for implementation (UNESCO, 2003). Some of the problems envisaged as militating against a holistic ICT integration approach are inadequate manpower, school leadership, teacher characteristics and students' attitude.

However, it is worrisome assessing access and implementation of ICT use in instruction in secondary schools given the advantages of promotion of fundamental changes in teaching and learning methods. students acquisition of knowledge, foster of enquiry and exploration of multimedia facets and provision of practical and functional knowledge of the computer, internet and associated gadgets. The study would assess students' perception on use of ICT/internet in learning reading comprehension.

### **PURPOSE OF THE STUDY**

The purpose of the study is to investigate students' perception of the use of ICTs/internet for learning reading comprehension.

### **OBJECTIVES OF THE STUDY ARE**

1. To determine students' perception on use of ICTs in improvement of their reading comprehension ability in schools.
2. To evaluate impact of ICT use in learning reading comprehension.
3. To investigate the perception of students ICT on the value of on their educational value.
4. To determine students self-efficacy in learning reading comprehension using ICT

### **RESEARCH QUESTIONS**

The following research questions were stated for the study.

1. what is students' perception of the use of information and communication technology/internet for learning on reading comprehension?
2. How does ICT impact on students reading comprehension ability?
3. How do students perceive the value of ICT on their education



4. Do student perceive self-efficacy in learning reading comprehension using ICT/internet?

## METHODOLOGY

The study adopted a descriptive survey design in order to elicit students' perception on use of ICTs/internet in reading comprehension. The instrument for the study is the Students Perception on ICT/Internet Questionnaire (SPIIQ) developed by Pardede (2013), adapted to probe on reading comprehension and ICT applications. The instruments construct and content validity was adjudged adequate (Paramode, 2013). the instrument statistical test of reliability of 0.82 was obtained using the test re-test method and Pearson Product moment correlation formula,

upon administering instrument on 20 students in the sampled schools.

The population of the study was 1826 SSS II students, A sample of 250 was obtained using purposive sampling technique in 4 schools where ICT instruction was carried out. The SPIIQ was administered to subjects and retrieved for analysis based on their responses. Students participation in this research was exciting, having received 100% response on return of instrument in the selected schools. Likert scale construct of Strongly Agreed (SA)-4, Agree -3, Disagree -2, strongly disagree -1 are weighted rating for the questionnaires.

## RESULTS AND DISCUSSION

**Research Question 1:** What is students' perception about use of information and communication technology/internet for learning on reading comprehension?

**Table 1.1 Perception of students on use of ICTs/internet for leaning reading comprehension**

S/N	Questionnaire Items	SA	A	D	SD	$\bar{X}$	Decision
1.	Reading comprehension require sufficient attention within intensive concepts	150 (600)	50 (150)	15 (30)	35 (35)	3.36	strongly Agreed
2.	Learning reading with ICT is more interesting	100 (100)	70 (210)	30 (60)	50 (50)	2.88	Strongly Agreed
3.	I prefer learning with ICT	120 (480)	80 (240)	20 (60)	30 (30)	3.24	Strongly Agreed
4.	Reading digital texts improved my comprehension than printed texts	132 (528)	28 (84)	70 (140)	20 (40)	3.16	Strongly Agreed
5.	I love learning ICT skills when applied to reading	102 (408)	43 (125)	60 (120)	50 (50)	2.81	Strongly Agreed
6.	I'm more enthusiastic to learn ICT	120 (180)	80 (240)	20 (60)	30 (30)	3.240	Strongly Agreed
7.	ICT gadgets experiences making reading meaningful irrespective of time spent	50 (200)	116 (348)	34 (68)	140 (100)	2.864	Strongly Agreed

$\bar{x}_g = 2.50$

The criterion mean ( $\bar{x}_c = 2.50$ ). since the grand mean of 2.69 is greater than the criterion mean, students perceive the use of ICT/internet as adequate for learning reading comprehension.

Students showed enthusiasm in reading digital texts and preference for learning with ICT ( $\bar{x}: 3.24 > 2.50; 2.81 > 2.50$ ).

**Research question II:** How does ICT impact on students reading comprehension ability?

**Table II: Impact of ICT on student, reading comprehension ability**

S/N	Questionnaire Items	SA	A	D	SD	$\bar{X}$	Decision
1.	ICT resources support effective learning of reading comprehension	120 (480)	40 (120)	40 (80)	50 (50)	2.92	Strongly Agreed
2.	Quick search for meaning of vocabulary requiring new knowledge are aided using ICT	100 (400)	60 (180)	40 (80)	50 (50)	2.84	Strongly Agreed
3.	ICT helps in learning new skills and make learning easier	130 (520)	60 (180)	40 (80)	20 (20)	3.20	Strongly Agreed
4.	ICT has positive impact on reading comprehension	105 (420)	75 (205)	40 (80)	30 (30)	3.02	Strongly Agreed
5.	ICT use makes me composed involved and active in acquiring reading comprehension	200 (800)	20 (60)	15 (60)	15 (15)	3.62	Strongly Agreed

Grand mean = 2.724

Criterion mean = 2.50



The grand mean is greater than the criterion mean ( $2.724 > 2.50$ ) hence there is a positive impact of ICT on students reading comprehension ability. Students on ICT resources for effective learning of reading comprehension in terms of acquiring new

skills active learning and acquisition of new knowledge, ICT had positive impact on students.

**Research Question III.** How does students perceive the value of ICT on their education

**Table 3.5 Students perception on the value of ICT on Education**

S/N	Questionnaire Items	SA	A	D	SD	$\bar{X}$	Decision
1.	ICT helps me realize the importance of technology	200 (800)	25 (75)	25 (40)	5 (5)	3.68	Strongly Agreed
2.	ICT makes me learn more actually	150 (100)	50 (150)	20 (40)	30 (30)	3.28	Strongly Agreed
3.	ICT inspires me to express myself	140 (560)	50 (150)	40 (80)	10 (10)	3.20	Strongly Agreed
4.	Reading and oral Communication improved due to ICT skills inculcation	80 (320)	120 (360)	20 (40)	30 (20)	3.00	Strongly Agreed
5.	Learning, reading meta-cognitively is guaranteed due to ICT.	110 (440)	40 (120)	50 (100)	50 (50)	2.44	Agreed

Students response indicated that ICT has improved their active participation in learning, improved reading comprehension and an option for meta-cognitive learning ( $\bar{x}$ :  $3.12 > 2.50$ ).

**Research Question IV:** Do students perceive self-efficacy in reading comprehension using ICT/Internet?

**Table 4.0 Students perception on self-efficacy in reading comprehension using ICT/Internet**

S/N	Questionnaire Items	SA	A	D	SD	$\bar{X}$	Decision
1.	I can use ICT early	120 (480)	30 (90)	50 (100)	50 (50)	2.88	Strongly Agreed
2.	I have the ability and knowledge house ICT in learning activities	150 (600)	30 (90)	50 (100)	20 (20)	3.08	Strongly Agreed
3.	I get encouraged using ICT for reading	750 (600)	20 (60)	30 (60)	50 (50)	2.08	Strongly Agreed
4.	I need much guidance to use ICT in learning	40 (160)	80 (240)	125 (250)	25 (25)	1.90	Disagreed

Criterion mean = 2.50

Criterion mean = 3.16

The grand mean is greater than the criterion mean ( $\bar{x}$   $3.16 > 2.50$ ) hence students perceive self efficacy in reading comprehension when using ICT/internet. Students strongly agreed that they use ICT early, have ability and knowledge when ICT is used in learning activities and are encouraged using ICT for reading ( $\bar{x}$   $3.08 > 2.88 > 2.50$ ). they opined that not much guidance is needed to use ICT for academic purposes ( $\bar{x}$ :  $2.50 > 1.90$ )

## DISCUSSION OF FINDINGS

Findings of the study are that:

Students perceive ICT/internet as potent for learning on reading comprehension. This finding agrees with the policy on ICT and the views of Sulaiman (2010) on the usefulness of ICT to encourage learning and improve achievement (Osakwe, 2012) despite lack in infrastructures as stated by Emperor (2010). This scenario differs from what was observed in tertiary institutions in the views of Yousset and Dahmani (2008) stating no

relationship between the use of ICT and students performances higher instruction. The impact on students reading comprehension ability is positive ( $\bar{x}$ :  $2.714 > 2.50$ ); these is a perception that ICT has high value on education hence students perceive self-efficacy in reading comprehension using ICT/internet ( $\bar{x}$ :  $3.12 > 2.50$ ). The relevance of ICT to learning has been discussed (Jimoyiannis & Komis, 2007).students should adopt the ICT use in reading in order to improve on comprehension.

## CONCLUSION

Application of ICT on students learning have been rewarding and efficacious in the areas of achievement and performance, positive change of attitude, and collegial integration. Students perceive that ICT integration in learning, would motivate, make them actively involved in learning and become self-reliant hence teachers should make use of ICT/internet in teaching reading comprehension



## RECOMMENDATIONS

The following recommendations are suggested based on the findings of this study.

1. Students in secondary school should integrate their ICT- interest for learning of reading in order to improve their performance.
2. Government ICT integration policy in schools should be matched with action. Procurement, installation supervision and maintenance of ICT facilities will encourage students participation and use of ICT resources for learning .
3. Teachers capacities should be developed through training on ICT integration.
4. Teachers of English language should be proactive in using ICT for service delivery and remedy difficulties faced by students in reading comprehension.

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# ICT IN LISTENING AS A LANGUAGE SKILL

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## ABSTRACT

*The importance of listening to language acquisition is emphasized, and listening is presented as a language ability which requires a serious attention. The active listening process is broken down into its component parts, with special attention paid to the distinction between hearing and listening. The percentage of listening time compared to other language skills is analysed to support the fact that listening deserves better attention than it currently receives. Most proficiency examinations tests listening as a distinct language skill so there is a need to equip language learners with the skills required to handle such examinations. To help learners improve on their listening skills, some digital tools are recommended. Some suggestions are provided on what teachers can do in the class to help their learners do better in their listening ability..*

**KEYWORDS:** *listening process, listening skill, hearing, Listening comprehension, listening tools*

## WHAT IS LISTENING?

The ability to listen attentively and analyse information in order to draw conclusions about the content of a message is known as active listening. The act of listening entails not only the reception of a message but also its interpretation and subsequent response. Listening is a discipline that, like any other form of communication, requires deliberate practise. To listen is to make an attempt to understand what is being said, both verbally and nonverbally, to remember what has been heard and to act accordingly. (Bowen 2019)

Listening is thought of as a multi-step process in which listeners actively participate in activities like sound discrimination, word recognition, and grammatical structure comprehension. (Vandergrift, 1999). Hearing is the sense through which words is received. To listen is to recognise the sounds of conversation and convert them into understandable language. It is the ability to receive and correctly understand messages in the communication process that is referred to as

"listening," and it is accomplished by using one's ears to pick up on individual sounds (letters, stress, rhythm, and pauses).

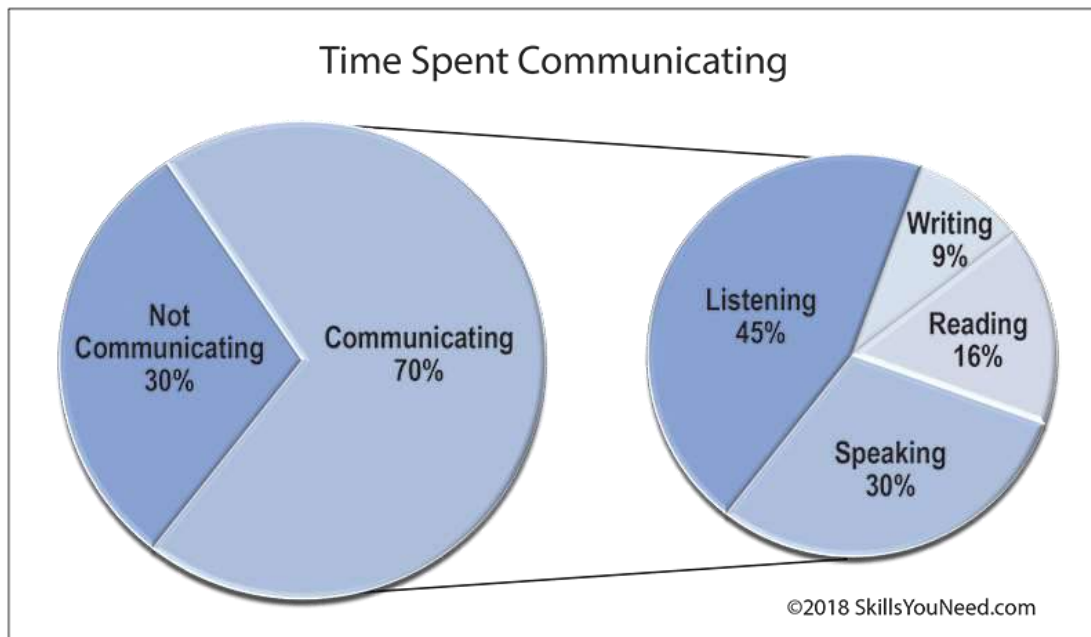
Effective dialogue relies on attentive listening. Misunderstandings occur frequently when people lack the ability to observe attentively. Because of this, it's easy for the sender to become frustrated or irritated, and dialogue breaks down. In this context, "hearing" means the ability to perceive and process auditory information. It's a physiological thing that occurs mechanically if your ears are working properly. But listening takes more than that; it demands attention and effort, not just in the mind but also in the body. As a listener, you should focus on the speaker's tone of voice, body language, and the specifics of the tale being told. In other words, it entails paying attention to both spoken and unspoken communication. How well you hear and comprehend these messages will determine how well you can communicate with others. Understanding the distinction between hearing and listening is crucial for developing and passing on listening skills. Some of the differences include the following:

Differences Between hearing and listening.

Hearing	Listening
Hearing is the reception of sound	listening is the attachment of meaning to the sound.
Hearing is passive	listening is active
Hearing is a form of perception	Listening is an active and intentional process

The distinction between hearing and listening, according to Rost, lies in one's level of intent. (2002).Listening comes before speaking, reading comes before writing, and writing comes after speaking. As a result, listening is the primary linguistic ability developed almost immediately after birth.

In addition, studies indicate that people spend an average of 45% of their time listening, while only 30% of their time is spent speaking, 16% reading, and 9% writing. (Adler, R. et al. 2001). That's a lot of time to listen to something, by any measure. Therefore, investing some additional effort into honing your listening skills is beneficial.



Research by Adler, R; Rosenfeld, L; and Proctor, R served as the basis for the following diagram. (2001). Harcourt, Fort Worth, TX: Eighth Edition Interplay: The Process of Interpersonal Communication.

Approaches to teaching and acquiring a second or foreign language have varied in how they treat listening. Krashen (1982) argued that learning is impossible without an adequate amount of "comprehensible input," and he suggested that teachers give their students frequent opportunities to listen to audio as part of their lesson plans. According to Saha (2009), the act of hearing is a free choice. That means the receiver of the speaker's message has to make an active attempt to do so.

Language proficiency can be boosted by listening to native speakers. Listening is the only way to fully adjust to the timbre, rhythm, intonation, and stress of a language. Listening attentively is essential for picking up on subtleties in any

language. The above diagram illustrates the importance of listening as the first step in constructing a thoughtful answer. It is only through listening that we are able to acquire pronunciation, word stress, vocabulary, and syntax, and it is also through listening that we are able to comprehend messages conveyed based solely on tone of voice, pitch, and accent. Learning is impossible without proper interpretation of information.

### The Active Listening Process

Active listening involves processing what is heard, evaluating it, and then responding to it. There are five phases of listening: reception, comprehension, evaluation, retention, and reaction. In order to be effective as a listener, one must be able to detect and name the speech sounds directed towards them, comprehend the meaning of those sounds, evaluate or assess the message, retain the information learned, and react (verbally or nonverbally).

### STAGES OF ACTIVE LISTENING PROCESS



Bennetch, et al (2018)

Source- [Openpress.usacks.ca](http://openpress.usacks.ca)



### **The Receiving Stage**

The first step in listening is getting, which entails actively listening and paying attention. The act of hearing consists of the eardrum's physiological response to sound vibrations. It goes without saying that we need to be able to perceive what we are listening to in order to gather information through listening. We will have trouble listening if our hearing is impaired.

The other part of the receiving process is attending, which is where the actual listening takes place. When we pay attention, we actively listen for and correctly recognise individual sounds as words. Until we assign meaning to the sounds we perceive, they have none. Active listening involves constructing meaning from linguistic and nonlinguistic cues.

The ability to recognise individual human voices, or "speech segmentation," is also helpful for participation. It would be a failing of listening to recognise sounds as speech but then fail to deconstruct those sounds into sentences and words.

### **The Understanding Stage**

In the comprehending phase, the listener engages in a process called decoding to make sense of what they've heard. When the listener's interpretation of the words and their context agrees with the speaker's intention, there is mutual understanding. To better grasp a speaker's meaning, it can be helpful to ask queries that will help you fill in any blanks in your mental reconstruction of their message.

### **The Evaluating Stage**

At this point, the listener evaluates the knowledge they have taken in on a qualitative and quantitative scale. Evaluating what was heard enables the listener to form an opinion and, if required, start working on a response. Once the listener has grasped the speaker's meaning, evaluation can take place successfully. A listener's ability to assess a speaker's message depends on his or her ability to fully comprehend that message, without having to spend time and effort sorting out ambiguities or addressing points that may be tangential or otherwise unnecessary.

### **The Remembering Stage**

The remembering phase of hearing involves organising and filing away the data picked up from the speaker for later use. If the audience has been paying attention, processing the information, and making judgments, then they will likely have been able to commit names, places, and events to memory. This occurs before, during, and after a speech.

### **The Responding Stage**

At this point in active listening, the listener responds with either vocal or nonverbal responses drawn from working memory. By maintaining the speaker/listener dynamic through nonverbal responses like nodding and eye contact, the listener can convey his or her degree of interest without interrupting the speaker. The speaker/listener roles are temporarily reversed when the listener verbally responds to what they hear and recall, such as with a query or a comment.

### **The Importance of Listening**

Listening is a crucial part of effective conversation in all aspects of life. According to Guo and Wills, "it is the medium through which people gain a large proportion of their education, information, understanding of the world and human affairs, ideals, sense of values." (2006 p. 3). Peterson (2001) argues that "no other type of language input is easy to process as spoken language which is received through listening," and that "by listening, learners can build an awareness of the interworkings of language systems at various levels," which provides a foundation for more fluent productive skills. (p. 87).

The ability to listen is crucial not only in the workplace but also in the school. In most cases, people mistakenly believe that they can communicate successfully in a second language simply because they can read and write in that language. In other words, more than half of the time that pupils spend actually communicating in a foreign language will be spent listening. (Nunan, 1998). Rost (1994) provides the following explanation for why hearing is so crucial in the language classroom:

Learning a language requires a lot of information, and listening is a crucial part of that. It is impossible to start learning without first receiving input at the appropriate degree of difficulty.

Second, learning a language through spoken communication allows for social engagement. Because comprehension requires collaboration between students. The availability of native speakers of the tongue is crucial. Furthermore, the inability of a learner to comprehend spoken language serves as a spur to engagement and learning rather than a roadblock.

Third, it can be difficult for students to grasp how natural speakers of a language actually employ that language.

Forth, as a means of drawing students' attention to unusual linguistic details, teachers can use listening activities. (lexical items, grammatical constructions, and interaction patterns). (p. 141-142).

To sum up, the ability to listen is vital for people to maintain effective communication in both academic and everyday settings. Anderson and Lynch (2003) argue that developing one's listening abilities is just as essential as developing one's speaking abilities, since the two are necessary for effective face-to-face communication. The ability to receive and process knowledge through listening is also crucial for academic success. (Wallace, Stariha & Walberg, 2004).

### **LISTENING COMPREHENSION PROBLEMS**

Research in the area of second language acquisition has shown that listening is one of the most challenging skills for students to master. (Goh, 2000; Guo & Wills, 2006). Students of English as a second language often struggle with listening understanding because of the language's heavy reliance on grammar, reading, and vocabulary. (Gilakjani & Ahmadi, 2011).



The students have trouble "hearing sounds, understanding intonation and stress, coping with redundancy and noise, predicting, understanding colloquial vocabulary, fatigue, understanding different accents, using visual and aural environmental clues," among other things. (Ur, 2007, p. 11-20). Underwood (1989) identifies the following as some of the most common difficulties students face when listening: delivery speed, inability to have words repeated, limited vocabulary, failure to follow signals like transitions, lack of contextual knowledge, inability to concentrate, habits like trying to understand every word in what they hear, and habits like trying to understand everything they hear.

To address the issue, "What is effective listening?" Anderson and Lynch (2003, pp. 5-6) highlight four ways in which the listener can or cannot process incoming speech: (1) the listener may not hear adequately what has been said; (2) the listener may hear words or phrases in the speech but be unable to understand them due to syntactical or semantic problems; (3) the listener may hear and understand the speaker perfectly but have switched off consciously or unconsciously; (4) the listener may not hear and understand the speaker adequately but have switched off completely. Learners of English often struggle with hearing because of the presence of sounds in English that are absent in their mother tongue.

Teachers of second language learners need to devise strategies to help their students engage in listening tasks outside of class in order to help these students overcome the listening difficulties they have identified.

Learners in today's digital era have access to a wealth of online resources for honing their listening skills, and studies show that these resources are effective. The following are a few examples of such instruments and their applications, as chosen by Nik Peachey:(2019).

## ONLINE TOOLS FOR DEVELOPING LISTENING SKILLS

### Online and Electronic Dictionaries

There is no question that online and electronic dictionaries are of great help to language instructors and learners, especially when compared to thick dictionaries in print. The way we use dictionaries has evolved since the advent of electronic pocket dictionaries, CD/DVD dictionaries, and now smart phones. Some examples of dictionaries that can be found online include the Collins Dictionaries ([www.collinsdictionary.com](http://www.collinsdictionary.com)), the Longman Dictionary of Contemporary English ([www.ldoceonline.com](http://www.ldoceonline.com)), and the Cambridge Dictionaries ([dictionary.cambridge.org](http://dictionary.cambridge.org)). Teachers can use them to present these resources to their students so that students can hear how words are pronounced and see how they are used in context in sentences. Teachers can use dictionary websites to help students with pronunciation, comparison of definitions from different dictionaries or time periods, finding synonyms and antonyms, learning collocations, and much more by having students complete worksheets based on previously learned or new words.

### Lyrics Training

This programme has long been one of my favourites because it makes learning a language as enjoyable as listening to music. Listening to music in different languages can help students learn to decipher words. Students can adjust the challenge by deciding whether they want to reconstruct the full lines or just a select few. The app is designed to be played as a game, so they will have to work quickly to complete each line of the song after the music abruptly stops at the conclusion of each verse. They have to resume the song over from the beginning if they can't finish the line. Using music for text reconstruction helps students listen to the same material over and over again without getting bored. There is a web-based version of the program, and both Android and iOS users can download the service for free. I found using the programme to be a much more satisfying experience. The app can keep tabs on pupil performance once both students and teachers have registered. The Lyrics Training collection can be expanded with the help of an instructor by uploading videos and lyrics to songs that can be used in class.

This app is great for encouraging students to engage in deep listening, but it's important to keep in mind that they can successfully recreate the words of the song without necessarily comprehending them.

### Listen Notes

You can find podcasts on just about any subject matter through this search tool. Students can benefit greatly from podcasts because they can be readily downloaded onto mobile devices and listened to whenever it is most convenient. Teachers and pupils alike can benefit from using Listen Notes to locate relevant audio content. After signing up, students can begin "curating" playlists of their favourite podcast programmes to listen to whenever they want to practise their listening skills. If you are creating online resources for your pupils, you can easily incorporate the podcast into your site, materials, or blog thanks to the embed code provided on the site for each episode.

Although there are some podcasts specifically designed for ESL/EFL learners, the vast majority are more appropriate for advanced learners because of their authenticity.

### Accent Rosie

Students who already have a Facebook account will benefit greatly from this programme. It's a no-frills app that uses Facebook Messenger to transmit brief audio clips to pupils. The pupils are tasked with taking notes from the audio recording. After submitting their answers via text, they will receive immediate input on how well they did. Students can improve their listening skills in a systematic manner by doing this.

### TeachVid

Another app that combines viewing and listening in one convenient package. TeachVid takes YouTube videos as its basis, and constructs a variety of exercises around them, such as text reconstruction, translation, multiple choice, jumbled phrases, and many more. TeachVid's flexibility in allowing



students to pick and choose which hearing exercises they want to do is a great feature. If you join up as a teacher, you'll have access to tools that allow you to make lessons out of any video on the site, distribute those lessons to your students, and keep tabs on how well they did. This is a convenient method for assigning homework requiring pupils to listen and checking their progress.

### Read Aloud

This extension for Chrome and Firefox converts written text into spoken word. It only takes a few seconds to install the plug-in, and then pupils can use it on any website by clicking a button on their browser's toolbar. The programme will launch and recite the page's content aloud. It reads aloud and highlights the text as it goes so that pupils can follow along visually. They can pause it and go back in time if they think they overlooked something. It's not a perfect voice, with intonation being the primary issue, but it's very good, and artificial speech is improving all the time. Students' listening and literacy abilities can benefit greatly from this method.

### Synth

Using Synth, podcasts can be made more dynamic and interactive for pupils. Teachers can assign their pupils to record a response to a podcast, message, question, or other audio file that they have listened to. The students' hearing skills will improve greatly as they participate in either a group knowledge-gathering exercise or an interactive discussion. It's accessible via iOS or a web browser.

### Fluid Data

Anyone looking to hone their hearing skills and expand their vocabulary will find this to be a useful resource. It functions similarly to a corpus in that it stores a large number of linguistic samples, but the data here consists of audio files. To do this, just enter the term you're looking for into the search bar. Fluid Data then displays a collection of audio clips, each with an orange bar highlighting the section of the clip that includes the example phrase. If you want to listen to a particular segment of the clip, just click on the orange bar. This is helpful not only for locating relevant listening materials when teaching a specific topic, but also for helping students review vocabulary and discover real-world usage examples.

### Listen and Write

This programme is like Lyrics Training but it has more resources to choose from. Like LyricsTraining, it has you focus on what you hear and write it down, and you can adjust the difficulty by choosing how many of the script's lines you need to type in. The texts in this course are typically more advanced than those in Lyrics Training and feature more advanced vocabulary; as a result, they are best suited for advanced students who wish to focus on honing their listening skills or for students preparing for Cambridge examinations. Motivated students who prefer to study on their own will find this an invaluable resource for expanding their spelling and listening knowledge.

### SpeakPipe

Using this app, you can record and submit your own short videos to a server, then distribute the resulting link to your class. You can use this to record short listening exercises or example sentences to help students who are having trouble recalling how to pronounce certain words or phrases. To begin, hit the record icon, then select "Save on sever." You will receive a link that will allow you to share the recording with your pupils, and it will remain on the server for three months. Use this to supplement your studies in listening and speech outside of class.

### Video Converter

If you need to extract audio from film or convert files for use on a variety of devices, this is a great option. Sometimes it's helpful to have students watch the video without the sound on so they can concentrate on what they're observing in the characters' facial expressions and body language without being distracted by the dialogue. To convert a video into an audio file or a silent video file, simply add a link to the video or submit the file itself.

Although classroom time is limited, and the pressure to prepare students for exams may not allow for enough time to be given to listening practice, incorporating various ICT tools into listening-practice activities in the classroom can increase the amount of input provided to learners. One option is to have students listen to English outside of class using mobile phones, computers, and other devices to access websites with audio and video content. This allows students to practise active listening skills. If students are at a loss as to what they should listen to on a regular basis, teachers can assist by making suggestions or encouraging group decision-making. As a result, more time can be spent outside of class on discussions and attentive hearing. activities.

### CONCLUSION

In conclusion the importance of listening in the process of language acquisition has been brought to the fore. The difference between hearing and listening has shown that listening is volitional with special interest and effort. The various stages of active listening have shown that it is a process that needs to fully be understood for effective listening to take place. Digital tools suggested is hoped to assist both teachers and learners to effectively acquire English Language through listening.

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# EVOLUTION OF ICT IN ENGLISH LANGUAGE LEARNING

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## ABSTRACT

*Technology has become increasingly integrated into English language classrooms over time. The use of information and communication technology has expanded into many contexts of ELT. (ELT). From CALL to MALL to RALL to TELL, this paper will try to trace the evolution of ICT use in ELT and the approaches that were pursued at each stage. Learners have not been spared the various challenges that come with the use of technology in any shape, despite the long journey of ICT in language teaching from the 1970s. These difficulties are highlighted, and potential solutions are proposed.*

**KEYWORDS:** *English Language Teaching, (ELT), Computer Aided Language Learning(CALL), Mobile Assisted Language Learning (MALL),Robborts Assisted Language Learning RALL,Technology Enhanced Language Learning (TELL)*

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Educational technology is defined as "the application of technological means to the enhancement of learning in a range of contexts, including but not limited to formal and informal education; non-formal and lifelong learning; the workplace; and just-in-time instruction," Huang et al. (2019). Technology in education has come a long way from its humble beginnings in the form of chalkboards and blackboard chalk, and today it encompasses a wide range of devices and methods, including but not limited to: augmented and virtual realities; simulations and immersive environments; collaborative learning; social networking; cloud computing; flipped classrooms; and many others.

## ICT IN LANGUAGE TEACHING AND LEARNING

In the field of English language teaching and learning with ICT, students are increasingly making use of information and communication technology (ICT) tools like open educational resources, online courses, virtual classrooms, and social networks. Alobiad (2020). To optimize, improve, and create a better language learning environment and smoother learning processes, ICT in the field of language education is the integration of various technologies of information and communication. The phrase "Information and Communications Technology (ICT) in Education" is commonly used in the field of education to refer to the incorporation of various forms of technology into the classroom.

## EVOLUTION OF ICT IN ELT

For the past three decades, ICT has been a staple in ELT (English as a Second Language). There has been a lot of study into the effect that ICT has on language education, how it is implemented, and the ways in which it incorporates new resources, methods, and tools for teaching and learning languages in the twenty-first century.

Technology advancements in the last few decades have impacted linguistic instruction and learning. Computer-assisted language learning (CALL) has been studied for 30 years and is the most popular word in the field of linguistics. (Golonka et al., 2014).

Because of the auditory lingual method's emphasis on repetition and practice, computers have become natural partners in the language-learning process. (Levy, 1997). As the 20th century came to a close, computer-assisted language learning (CALL) became increasingly influential in the field of linguistics. Warschauer (2000a) identifies three overarching trends in this era's CALL history:

- **structural CALL,**
- **Communicative CALL,**
- **Integrative CALL.**

### Structural CALL

In the '70s and '80s, computer use was primarily for training and rehearsal. The function of computers was highly regimented and uninteresting. During this time, accuracy was prioritised above all else when studying a new language.

**Communicative CALL** The use of computers in the 1980s and 1990s to create exercises to hone successful communication went beyond accuracy and sought to achieve fluency.

**Integrative CALL** The period between the late 1990s and the early 2000s was marked by widespread availability of Internet and other forms of digital media. As a result of this increased access to technology, teachers started planning classroom language instruction so that it could be used in a variety of settings.



Another CALL paradigm described the field's development over the first three decades of this century. It differentiated between Closed and Open CALL. (Bax 2003). Bax provided a counterpoint to Warschauer's assessment of CALL's evolution over the final three decades of the twentieth century.

While the early behaviourist approach to CALL relied more on rote learning than interactivity, Bax classified this era as Restrictive CALL, language learning software developed in the 1980s and 1990s allowed students to interact not only with the computer systems for individualised learning, but also with other students. The final phase of CALL that Bax describes is Integrated CALL, which is very similar to Warschauer's interpretation of Integrative CALL. In both cases, the use of computers is viewed as so integral to language learning that it can be built at the curricular and course level, rather than as an afterthought. Bax argued that the word CALL should be abandoned because computers are so ubiquitous in the field of language education, just as books are seen as a tool for language learning without the need to coin a term like Book Assisted Language Learning.

In the first years of the new millennium, CALL's impact on the study of languages only grew stronger. Davies et al. (2013) note that "Web 2.0 fever" of the time affected the discipline. Web2.0 tools like wikis, message forums, social networking sites, and virtual worlds all contributed to this phenomenon. Several "Second Life worlds" dedicated to language learning have sprung up since 2007, and annual conferences have been called Second Life Language Conferences ever since, proving that the trials with virtual worlds have taken on a life of their own within the language learning community. (Davies et. al 2013, p. 34). It is important to note that technology is ubiquitous in all subjects and levels of education, and is indeed necessary for everyday life, as stated by Chapelle & Sauro (2017:1). Therefore, not only do our students use technology to learn a language, but also to better prepare themselves for future obstacles. When we use tele-collaboration to bring together students from various countries, they gain experience with tools like video and chats that they'll likely use in their own life tasks, like working remotely. As a result of technological advancements, we are able to abandon more conventional methods of instruction and instead place the student within broader, more interconnected networks. Because of this, students can grow into independent scholars.

#### **From CALL to MALL**

With the advent of mobile devices in the early 2000s came a new acronym: Mobile Assisted Language Learning. According to O'Malley et al. (2003: 6), "any kind of learning that happens when the learner is not in a fixed, predetermined location, or learning when the learner takes advantage of the learning opportunities offered by mobile technologies," best describes MALL.

Our conception of education has evolved in tandem with the speed with which educational resources have shifted.

According to Sharples et al. (2010), there is a direct correlation between the characteristics of New Learning—individually tailored, learner-centered, contextualized, collaborative, pervasive, and lifelong—and those of New Technology—individually tailored, user-centered, mobile, networked, pervasive, and long-lasting. There is potential for mobile learning to "open up new doors to personal fulfilment and lifelong learning by bridging the gap between formal and experiential learning."

According to Kukulska-Hulme et al. (2017), the affordability of mobile learning and its ability to bridge academic and lifelong learning make it an excellent tool for language instruction.

They also stress that learners will need to be more autonomous and that good learning design is essential for the new approach to language acquisition. Ibn Gusti Hafif (2019).

The presence of RALL (Robot-Assisted Language Learning) has been shown to increase students' motivation, attention, confidence, acceptance of the instructional materials, satisfaction in the learning process, and language ability, as confirmed by Hong et al. (2016).

In the context of incorporating ICT into language study, a new acronym emerged: TELL (Technology-Enhanced Language Learners). (Motteram, 2013). The use of TELL in EFL settings has been the subject of numerous studies. Most research shows that when students use ICT, they develop better abilities in both individual and group learning. As a cultural product of language study in the twenty-first century, it unquestionably contributes significantly to the advancement of second/foreign language education. TELL is new media for boosting language learning process in the integrated multimodal learning environment, and it conforms to the constructivist learning theory by allowing for template-based learning and knowledge building.

The vast majority of students maintain an optimistic outlook, and they do so because they appreciate learning and because they gain many advantages, including exposure to cutting-edge technology, improved proficiency with computers and the English language, and a broader understanding of education. The research conducted by Boonyopakorn (2016) demonstrated how TELL evolved into online social media to help EFL students better communicate in English. The Internet has proven to be a useful resource for boosting language learning in classrooms.

Compared to conventional methods of teaching a foreign language, Kranthi (2017) found that TELL offers a number of benefits for students. Along with the literature, it provides a comprehensive educational experience. TELL encourages a student-centered learning atmosphere and provides students with additional time to study outside of the classroom. Paperless classrooms are now possible thanks to technological advancements. In particular, the use of electronic teaching





materials was found to have more benefits than conventional textbooks, demonstrating that technology adds to the modernization and enhancement of the educational process. Information technologies, such as hyperlinks and other multimedia tools like Moodle and Blogger, have a lot of potential in the classroom, and this document highlights that potential. (Shishkovskaya, et al, 2015).

Learning Management System in its original form. Another technological advancement and invention utilised in ELT settings is the learning management system. G-Drive, Moodle, Padlet, Blackboard, Edmodo, and the newest one, Canvas, are just some examples of online learning platforms or web-based learning environments. According to Kolesnikov and Petrova (2015), conventional classroom learning activities have been supplanted by electronic and online learning platforms in the form of learning management systems.

In order to implement student-centered learning and the principles of learner autonomy, Mullama (2010) argues that Blackboard, as an online learning platform, provides ICT solutions in providing support to English classroom activities, group-work, pair work assignment, and individual works. One more controlled experiment confirmed the usefulness of web 2.0 applications like Slide share, You Tube, Podcast, Flickr, and Picasa in improving students' English language skills in university environments. (Shishkovskaya, et al 2015).

Since a web-tool like GrewPtool supports interaction—something lacking in other web-tools like Moodle—which is necessary in a'real' classroom environment, Cavus et al. (2006) finds that collaborative learning tools can contribute to successful language learning activity. The English language can be taught and learned effectively with the help of high-quality cooperation tools. Despite students' and faculty members' grumblings about the added workload, the use of the learning management system (LMS) Moodle (Modular Object-Oriented Developmental Learning Environment) improved students' English proficiency at the university level. More research into the learning management system (LMS) called MEC (Macmillan English Campus), which is used to teach English as a second language in Turkey. The data indicates that MEC had a positive effect on student performance, though it likely wasn't the only factor, given that students have more time to study thanks to their increased online engagement. (Bilgin, 2013).

Blended learning, which combines conventional classroom instruction with online materials, is another form of ICT use in ELT. (online). Some studies have found that students benefit from Blended learning in ELT because it allows them more freedom and time to study on their own outside of class and helps them become more independent and work better in groups. In addition, it can cater to students of all learning styles, boost students' motivation and speech abilities, and reduce wasted time in class (Akkonyulu & Soyulu, 2008). (Buran & Evseeva, 2015). It is clear that ICT plays an important part in and has a significant effect on English

language education. The use of ICT in the classroom is now universally recognised as a necessity. Therefore, educators at the front lines need to acquire digital literacy skills in order to effectively use ICT for research, production, and dissemination of knowledge, all of which call for a blend of cognitive and technological abilities. (connect.ala.org). Even though they were born into the digital age, students still need to learn how to effectively use digital tools for research, writing, and presentation in the classroom. Teachers of English as a foreign language need to be innovative in order to keep up with the ever-evolving technological landscape and meet the needs of their pupils in the digital age. The shift from conventional classrooms to 21st-century online learning environments has been facilitated by technological advancements.

### CHALLENGES OF DIGITAL LEARNING

When There are many benefits to digital learning for both educators and students when compared to the standard classroom setting. The best time and location for instruction and study are completely flexible. Of course, there is a new set of difficulties associated with digital learning that must be overcome. Even if they do well in a traditional classroom, many pupils will struggle in an online environment. Students who have no trouble learning the content can still struggle to complete their work on time and perform poorly on tests.

Therefore, it is crucial that both educators and students be conscious of these challenges. One can get the most out of every online learning activity with a little forethought and planning and overcome these obstacles. The individual may face the following difficulties while utilising online digital learning:

#### 1. Resistance to change.

There are advantages to implementing a new improvement that can lead to further progress and growth, but there are also disadvantages to be aware of. One of the greatest problems with digital learning is that both students and instructors may be resistant to change because of a lack of technical skills and familiarity with the technology. Students need to be taught not only how to use technology for other purposes, but also how to use it to study successfully for academic purposes. Sometimes people are resistant to change because they are not prepared to adapt to the new circumstances, even if those new circumstances are better than the ones they are leaving behind. There are steps that can be done to counteract this opposition. The advantages of education, which could include, must be made clear to students:

- The feature of multimedia learning which makes the material more engaging,
- Materials are easier to access. At the time of teaching, such learning material will be accessible to them whenever they want. This will enable them to complete the learning within a span of time.
- Effective communication processes are very key to incorporate in digital Learning programme. It will



enable learners to understand and accept digital Learning programme quickly.

- It is important that, learners know what benefits digital learning offers them, and the objectives, among other aspects.

## 2. The infrastructure

It's a challenge for educational institutions and pupils alike. The distribution of eBooks and digital curricula is hindered because most institutions do not have the necessary information technology infrastructure. Many developing nations still lack the infrastructure to support the large data downloads necessary for digital books, including computers, laptops, iPads, smart televisions, and reliable internet connections. Not all pupils have easy access to smartphones with internet access. Even if they have a smartphone, they may not be able to purchase data bundles that give them access to the internet.

Not all students have had the same level of access to technology, even among so-called "digital natives." There are lots of people who never go online without first checking their phone or computer.

Therefore, it is crucial that educational resources move away from a focus on computers in the early 2000s. The mobile-first group might one day find it unnecessary to download files, print pages, or even use Word documents. It's crucial to pick readings that can be easily accessed on any device, including mobile phones and laptops.

## 3. Need for Self-Discipline

Many college students have difficulty maintaining self-control in the classroom. It's the first time they've ever gone without constant supervision. Finding the internal drive to study on one's own is a process that requires time. It's even simpler to procrastinate when taking an online course.

Tools are available to assist students in cultivating self-discipline. Having a class schedule where everyone can see when things are due is a good first step. Having an online curriculum that students can use to mark off assignments as they are finished is also useful for keeping things in order. Students can see exactly what they should be working on right now, how far along they are, and what is on the horizon. Structure can be offered without coming across as oppressive with the help of calendars, notes, and other organisational tools. It's possible that punishments for late homework submissions will be necessary to keep them in control.

## 4. Lack of Social Interaction

College is a great location to make friends for life and maybe even find your soul mate. The social dynamic of a traditional classroom can be conducive to education; students can benefit from bouncing ideas off of one another, creating study groups, and being encouraged by their peers. Although the dynamics of a classroom setting are difficult to replicate online, you can still foster an atmosphere conducive to learning, collaboration,

and socialisation by having students identify themselves and engage in conversations outside of class. Students can talk to one another and get to know one another better in a forum that has been made up specifically for the class. It can also serve as a place for students to have off-the-record conversations about the material they're studying or anything else they want to talk about.

Students should routinely collaborate in small groups and share their progress on assignments. (like Google Docs). Insist that students make substantial contributions to class discussions and the work of their peers. While it may take some prodding to get the ball rolling, once collaboration and engagement get going, they really take off.

## 5. Lack of Teacher Contact

It's simple to undervalue the amount of one-on-one attention students receive from professors on a traditional school. There is the actual time spent teaching, complete with immediate feedback and clarification. There's also the opportunity for casual conversation before, during, and after class, as well as during office hours and chance encounters in the corridor, none of which are possible with online education.

It is important for instructors to make themselves slightly more accessible for online classes. You don't have to disclose your cell phone number to your students or become Facebook friends with them if you don't want to. However, it is worthwhile to create a chat account for the class and establish times when students can expect a prompt answer. Emails should be responded to as soon as possible.

First and foremost, participate in student discussions of course content. Interact with the comment section and the topics asked. That way, you can be there for your pupils, but you can also encourage them to pick up useful information from one another.

## 6. Poor Time Management

Although this test has some connections to the self-control section, it really needs its own section. The ability to learn at one's own speed is a significant benefit of online education. But that benefit can also work against you. As the semester nears its conclusion, "their own pace" inevitably gives way to "procrastination and a mad rush." It's crucial to coach pupils on time management before actual due dates roll around.

It's preferable to provide some leeway in the course's pacing while still maintaining some order. Establish weekly or biweekly benchmarks for pupil development: A typical assignment rubric might say something like, "By January 4th, students should have read X pages, made X comments on the forum, and selected a topic for the final project." Students should be aware that while they are permitted to work early, they will still be held accountable for meeting the milestones throughout the term.



## 7. Technological Difficulties

We have a tendency to assume that everyone has ready access to a high-end personal computer. However, not every student has had equal access to technology, even for a group of digital natives. The majority of people now use their mobile device exclusively for accessing the internet. For some, a smartphone is their only means of accessing the internet, and they may not even have access to Wi-Fi.

Getting away from a focus on PCs in textbooks common in the early 2000s is crucial. The mobile-first group might one day find it unnecessary to download files, print pages, or even use Word documents. It's crucial to pick readings that can be easily accessed on any device, including mobile phones and laptops.

## 8. Learner's Motivation

Seminar and discussion-style classrooms have the benefit of being more easily monitored and held accountable. Keeping our students motivated enough to complete the course, and moreover, making them enjoy the learning experience, is a common challenge in digital Learning because, left to their own devices, learners may not explore the course material and may not like using their free time to do coursework. Several options exist for dealing with this difficulty: The best way to get students interested in online classes is to make them lively and visually appealing.

## CONCLUSION

The use of technology has gone a long way in the language classroom. To improve the teaching of English as a foreign language in schools, it is anticipated that it will go even further by providing richer and more pertinent affordances. The benefits of modern educational technology are not without their share of difficulties for both instructors and their learners. If the advice given is carefully examined, they can be somounted.

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## CHINESE BLUFF IN MALACCA

### The Future Security Architecture of the Region and China's Indian Ocean Strategy

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#### ABSTRACT

*The rise of China has been the subject of in-depth research in international politics. Beijing's rapid rise appears to be mostly driven by trade-driven economics. China made an equal contribution to the expansion of world commerce from 2007 to 2017 as did all other nations. China's trading route, the Indian Ocean, thus, became into Beijing's key lifeline. In fact, China has talked publicly about its maritime vulnerabilities, with the so-called Malacca problem generating the most discussion. Contrary to Beijing's portrayal of the Malacca problem, China seems to be playing on its fragility in order to assert its control over these straits. China plans to accomplish this in order to exert dominance across a larger portion of the Indian Ocean (IOR), which it has begun to view as its proper sphere of influence. China's strategy towards the IOR is long-term and might have a destabilising effect, necessitating a cooperative security architecture in the area. This article begins by examining the Malacca conundrum from a Chinese perspective, as well as China's solutions to the conundrum. The Malacca bluff, the underlying Chinese IOR plan, and its effects are then examined. Finally, the article suggests that the area implement a multilayered security system.*

**KEY WORDS:** IOR, SLOC, IORA, Strait of Malacca

China's energy needs increased significantly as it became the global hub for industry. At the start of the twenty-first century, China's domestic oil consumption grew by 30% annually.<sup>3</sup> Chinese domestic oil production, however, was falling behind. Compared to 2003, China's oil imports increased by 40% to 120 million tonnes, while local oil production increased by only 2%.<sup>4</sup> The usage of natural gas increased in lockstep with this. Between 1993 and 2007, China's natural gas consumption increased by 3.4 times, from 13.7 million tonnes to 60.6 million tonnes.<sup>5</sup> Despite being able to fulfil demand, domestic gas production, according to the International Energy Agency, may soon be unable to keep up with rising domestic consumption.<sup>6</sup> The writing was very obvious on the wall. If China wanted to maintain its economic expansion, it would have to rely more and more on importing fossil fuels from the Middle East and Africa via ships. The legitimacy of the Chinese Communist Party (CCP) swiftly grew entwined with the ability to satisfy the nation's expanding energy needs in order to maintain economic growth. The CCP's fundamental requirement in a nation with a history of exploding regimes is to have a grasp over the enormous populace. The CCP's propaganda of being the only force behind the "century of humiliation"-era Chinese state's renewal is essential to establishing this need. The CCP had to take all necessary measures to protect its marine lines of communication due to China's increasing dependence on oil imports, which were essential for domestic stability and economic progress. (SLOC).<sup>7</sup> The stability of domestic affairs and the CCP's tight control over its population were directly impacted by any vulnerability in oil transit. In this way, the CCP's survival in a fast growing economy and, thus, a national or regime security imperative, became inexorably related to energy security. The Malacca Dilemma was coined as a result of the need to secure the maritime trade routes that required passage through the Malacca Strait in order to ensure energy security.

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<sup>3</sup> You Ji, "Dealing with the Malacca Dilemma: China's Effort to Protect Its Energy Supply," Strategic Analysis 31, no. 3 (18 September 2007), 469.

<sup>4</sup> You, "Dealing with the Malacca Dilemma," 469.

<sup>5</sup> Chen Shaofeng, "China's Self-Extrication from the 'Malacca Dilemma' and Implications," International Journal of China Studies 1, no. 1 (January 2010), 5.

<sup>6</sup> Chen, "China's Self-Extrication from the 'Malacca Dilemma'," 5.

<sup>7</sup> You, "Dealing with the Malacca Dilemma," 470.



Understanding the topography of the strait and its surroundings is crucial to comprehending China's alleged predicament. The phrase "Malacca dilemma" was coined by President Hu Jintao in 2003 during a CCP economic work meeting.<sup>8</sup> According to Hu, geography plays a major role in the straits' vulnerability. There are few entry or exit points and significant distances between them on the East-West trade routes between China and the oil-producing nations.<sup>9</sup> The Malacca Strait, which has a length of 1,100 km and a width of 2.8 km at the Phillips Channel, is a crucial point of entry and exit. Hu stated unequivocally that this geography provides a possible chokepoint that is crucial to the Chinese economy and, consequently, its security.<sup>10</sup> He added, "Certain powers have all along encroached on and tried to control navigation through the strait."<sup>11</sup> This was not a fresh development; it was a covert attack against the US presence in the neighbourhood. Experts who believed this story went on to explain that the strait was vulnerable to accidents, piracy, and terrorist strikes, particularly after 9/11.<sup>12</sup> Chen Shaofeng asserts that as a result, the Malacca Strait turned into a weakness for China that might be used by rivals and non-state players in order to hold Beijing hostage to their demands.<sup>13</sup> By viewing the issue via a Chinese lens, one can better comprehend how Beijing wants the international community to perceive China's responses. Concerning this article, Beijing's responses to the Malacca conundrum are mostly divided into two categories. The military plan is the first step in ensuring safe passage for Chinese ships travelling through the Malacca Strait. According to the CCP, the People's Liberation Army Navy (PLAN) must play a bigger part in ensuring that commerce vessels may transit through the straits safely. This is required as a strictly defensive measure. Beijing believes that by promoting free and open seas and enhancing overall regional security, this will lessen China's vulnerability. Second, China has to discover alternate routes that avoid the Malacca Strait. These initiatives include the Kur Strait in Thailand, the Myanmar Oil Pipeline to Kunming, China, and the China-Pakistan Economic Corridor (CPEC), which connects the Gwadar Port in Pakistan with the Xinjiang Province in China.<sup>14</sup> In a nutshell, the ideas appear simple and appropriate for any state seeking wealth and security. The Chinese solutions, however, have significant regional implications and necessitate a microscopic examination of this purported conundrum to comprehend Beijing's genuine objectives.

### **MALACCA BLUFF: LOOKING BEYOND THE CHINESE VERSION OF THE MALACCA DILEMMA**

Numerous ambiguities external to the Malacca Strait are revealed by a thorough analysis of China's Malacca conundrum. Geographical, security, and behavioural ambiguity are the main three. When looking at the geographical ambiguity, one must first zoom out from the Malacca Strait and avoid viewing it in isolation, as Beijing would have the rest of the world do. The Malacca Strait is not the sole exit from the IOR, according to a macro-analysis of the area. The Sunda, Lombok, and Makassar are three more nearby straits, and taking this diversion is not as expensive economically as the CCP story suggests. The Strait of Hormuz would serve as a chokepoint if one were necessary.<sup>15</sup> Hu contends that China is thus faced with a Malacca issue, but if so, why not a Hormuz dilemma, or even a Sunda, Lombok, or Makassar dilemma?<sup>16</sup> Geographically, the Hormuz and the entire IOR are significantly more vulnerable because that area is not the PLAN's typical bastion but rather one where the United States and India have a distinct advantage. For three reasons, Beijing exaggerates China's security worries in the Malacca Strait. First, the Malacca Straits are surrounded by three neutral nations: Indonesia, Malaysia, and Singapore. These nations oppose any international administration of the straits, including US plans, because of worry that it would undermine their regional cooperation efforts.<sup>17</sup> Second, there is conflict on the local level on the main danger to the straits. On the one hand, the waterways' susceptibility to terrorism and piracy is highlighted by the United States and Singapore. Malaysia and Indonesia, on the other hand, think that certain nations are using the threat of terrorism and piracy as justification for establishing a strategic dominance over the region.<sup>18</sup> These opposing arguments rule out the targeted blockade of the strait by a single player. In addition, Beijing is equally concerned about terrorism and piracy, which are global problems that affect both China and the West.<sup>19</sup> The three neighbouring nations' coordinated maritime patrol efforts successfully decreased piracy assaults from 38 in 2004 to just four incidents in 2008.<sup>20</sup> Third, as previously mentioned, given that the US Navy has

<sup>8</sup> Marc Lanteigne, "China's Maritime Security and the 'Malacca Dilemma,'" *Asian Security* 4, no. 2 (2008), 143, <https://doi.org/>.

<sup>9</sup> David Brewster, "An Indian Ocean Dilemma: Sino-Indian Rivalry and China's Strategic Vulnerability in the Indian Ocean," *Journal of the Indian Ocean Region* 11, no. 1 (2015): 48–59, <https://doi.org/>.

<sup>10</sup> Lanteigne, "China's Maritime Security and the 'Malacca Dilemma,'" 144.

<sup>11</sup> Lanteigne, "China's Maritime Security and the 'Malacca Dilemma,'" 145.

<sup>12</sup> Lanteigne, "China's Maritime Security and the 'Malacca Dilemma,'" 146.

<sup>13</sup> Chen, "China's Self-Extrication from the 'Malacca Dilemma,'" 2.

<sup>14</sup> Chen, "China's Self-Extrication from the 'Malacca Dilemma,'" 10.

<sup>15</sup> You, "Dealing with the Malacca Dilemma," 472.

<sup>16</sup> Brewster, "An Indian Ocean Dilemma," 49.

<sup>17</sup> Lanteigne, "China's Maritime Security and the 'Malacca Dilemma,'" 146.

<sup>18</sup> Chen, "China's Self-Extrication from the 'Malacca Dilemma,'" 8-9.

<sup>19</sup> You, "Dealing with the Malacca Dilemma," 472.

<sup>20</sup> Chen, "China's Self-Extrication from the 'Malacca Dilemma,'" 8.



undisputed superiority in the former, the US is more likely to favour Hormuz than Malacca when seeking to enforce a blockade against the Chinese. Even in an unlikely scenario where the US imposes a costly blockade on Malacca and all the nearby straits, China may respond by imposing a similar blockade on US allies like Japan, South Korea, and Taiwan via the East and South China Seas. Discussing Malacca Straits, You Ji, a professor at the University of Macau, argued, “SLOC risks are often overstated, by seeking to portray SLOC insecurity as a matter of life and death for nations, in view of its adverse impact on economy.”<sup>21</sup>

It looks unusually inconsistent for a Chinese president to have highlighted the Malacca Strait as China’s Achilles’ heel on the party conference stage in 2003. Historically, the propaganda around the party’s crucial role in the advancement of the Chinese country and future action plans has taken centre stage at party conferences. This highlighting of a behavioural contradiction and a strategic weakness may be a cunning strategy to justify China’s pivot to the IOR and signal to the rest of the world that China’s ambitions are growing. Or, to put it another way, China wants to control the straits and use them as a base for its naval presence in the IOR. Overall, the three variables expose China’s Malacca bluff and explain the underpinnings of its approach to the IOR.

### INDIAN OCEAN STRATEGY OF CHINA

In relation to the importance of the IOR for Beijing, China made the Malacca bluff. China consequently adopted a “Two Oceans” strategy to assert control over the Indian and Pacific Oceans. For China to continue to prosper, both oceans are essential. For China’s demands in energy and raw minerals, the Indian Ocean serves as a maritime thoroughfare. The Pacific Ocean serves as the country’s economic highway. Despite the fact that the United States and its allies pose a strong threat to China in the Pacific, the IOR’s power vacuum and its fragmented security system provide a fantastic opportunity for Chinese growth. The new Chinese approach in the IOR is not impromptu. Instead, it’s a carefully thought-out and formalised attempt at doctrine. This shift in emphasis from “China does not station troops or set up military bases in a foreign country” to “distant force projection” can be seen in China’s defence white papers from 1998 to 2008.<sup>22</sup> Chinese ideas about the West’s collapse and how China may lead the world to economic rebirth were strengthened by the global financial crisis of 2008. China looks to be pursuing this goal in the IOR with a three-pronged strategy that may be broken down into diplomatic, military, and economic lanes.

First of all, China is aware of the power of money in a region with weak nation-states. The IOR states, which include Bangladesh, Sri Lanka, Pakistan, and Myanmar, have historically been vulnerable to outside influences and struggle with a combination of military coups, shaky economies, and poor democratic institutions. Under the Belt and Road Initiative (BRI), which President Xi Jinping has referred to as a “win-win” endeavour for all parties, Beijing has partnered with these countries on massive infrastructure projects. Each of these IOR states is a participant in the project, which involves Chinese businesses building port infrastructure and adopting unfeasible debt management practises.<sup>23</sup> The Seychelles, Maldives, and Madagascar have also received lucrative infrastructure assistance from China.<sup>24</sup> By offering alternate transportation routes, normalising Chinese presence in the IOR, and enabling greater oversight of maritime routes, the infrastructure allays China’s SLOC worries. However, the initiatives have not yet shown to be economically successful, let alone contributing to the progress of the host nations. However, the initiatives offer a great chance to include China and give Beijing a more powerful voice in the IOR. Additionally, these debt traps strengthen China’s control over internal politics and policymaking in these states and give it the opportunity to influence the IOR narrative.

Second, while geoeconomics influence Chinese policy, the Chinese strategy of regional hegemony depends on a strong military presence in the IOR. As a result, the PLAN became the primary consideration in upcoming military strategy. China’s 2008 White Paper highlights the urgent need to build capabilities for remote water, arguing that “Struggles for Strategic Resources, Strategic Locations, and Strategic Domination have Intensified.”<sup>25</sup> The 2015 white paper unambiguously stated, “China will work to seize the strategic initiative in military competition.”<sup>26</sup> China’s military presence in the IOR therefore dramatically grew. China’s military IOR presence has grown significantly, from the first deployment of a nuclear submarine in the IOR in 2013 to a satellite-tracking ship making a port call in Hambantota in 2022.<sup>27</sup> China has made its long-term goals in the IOR known with evacuation operations in

<sup>21</sup> You, “Dealing with the Malacca Dilemma,” 472.

<sup>22</sup> David Brewster, ed., *India and China at Sea: Competition for Naval Dominance in the Indian Ocean*, 1st edition (New Delhi: Oxford University Press, 2018), 113-15.

<sup>23</sup> Frédéric Grare and Jean-Loup Samaan, *The Indian Ocean as a New Political and Security Region* (Cham, Switzerland: Palgrave Macmillan, 2022), 23.

<sup>24</sup> Brewster, *India and China at Sea*, 118.

<sup>25</sup> Brewster, *India and China at Sea*, 114.

<sup>26</sup> Brewster, *India and China at Sea*, 114.

<sup>27</sup> Grare and Samaan, *The Indian Ocean as a New Political and Security Region*, 26; and Yvette Tan, “Chinese ‘spy Ship’ Yuan Wang 5 Docks in Sri Lanka despite Indian Concern,” BBC News, 16 August 2022, sec. Asia, <https://www.bbc.com/>.



Yemen, the establishment of a naval facility in Djibouti in 2017, and agreements for military access to ports in Bangladesh, Myanmar, Pakistan, and Sri Lanka, along with joint military drills with the host countries.<sup>28</sup> Beijing furthered its position in the IOR by denying any competing claims made by a regional player by asserting that the Indian Ocean does not belong to India.<sup>29</sup> Beijing appears to be planning to create offensive and counteroffensive capabilities in case of a larger crisis and avoid any sea-based blockage of its commercial routes, according to China's undersea intelligence-gathering and mapping operations. In other words, for China to secure trade and project economic strength in the IOR and its environs, a significant naval presence is essential.

Third, Beijing has used diplomatic pressure to firmly establish China's position in the international forums of the IOR. China actively responded to the expanding economic and security requirements of the island nations and secondary powers in the IOR. Due to their shared animosity with India, Beijing has long had a "all-weather friendship" with Pakistan, but it also became Bangladesh's largest partner for the import of textiles and military hardware.<sup>30</sup> In a similar vein, China has established relations with four IOR island nations—Sri Lanka, Maldives, Mauritius, and Seychelles—that are strategically located near its maritime trade routes. China is Sri Lanka's top export market and has been a significant supplier of military equipment to Colombo. The importance that these "new natural partners" hold for China is demonstrated by the more than 50 high-level visits that have taken place between China and these nations, as well as post-BRI announcements. The support of these secondary powers and island nations ultimately paved the way for increased Chinese influence in regional organizations such as the Indian Ocean Rim Association (IORA) and the Indian Ocean Commission (COI).<sup>31</sup> To put it simply, Beijing is using a combination of hard- and soft-power strategies to gain access to the IOR. China has room to manoeuvre on the diplomatic and military fronts thanks to financial levers. Beijing has been actively advancing its three-pronged plan to assert its dominance as a regional hegemon and fill the power vacuum that has developed in the IOR as a result of a perceived lack of Indian response and a relative US decline.

The future trajectory of the IOR appears unstable, notwithstanding Beijing's claims that the greater Chinese presence in the IOR is for the improvement of collective security. Two causes can be identified for this instability. First, the extraordinary Chinese presence heightens the security conundrum between India and the US. In the past, India has viewed the IOR as its sphere of influence and has rejected outside involvement. The situation exacerbates New Delhi's sense of insecurity and subsequent responses as China rejects any such Indian claims and builds potential dual-use infrastructure all around the Indian peninsula, referred to as the "string of pearls."<sup>32</sup> Similar to this, China's naval manoeuvres in the area with Iran and Russia pose a threat to US dominance.<sup>33</sup>

Chinese infrastructure projects and investments typically have a destabilising effect. Due to the hesitation of international institutions to provide help of this magnitude, Chinese economic aid proved profitable to host nations<sup>34</sup>. It therefore came as no surprise that countries like Pakistan, Sri Lanka, and others failed to make loan payments to China. Additionally, the growing number of Chinese citizens and private security companies in these nations is perceived as a type of neocolonialism, complete with all the injustices of that age.<sup>35</sup> Baloch opposition to the Gwadar project and growing domestic opposition to the Colombo Port project both serve as examples of how these countries' populations feel about Chinese influence. The future of the IOR doesn't seem particularly secure with Sri Lanka declaring bankruptcy, a nuclear-armed Pakistan facing financial difficulties, and worries that Bangladesh and Myanmar are retreating from democracy. In order to address security concerns in the area, there is an urgent need for action due to the instability.

<sup>28</sup> Grare and Samaan, *The Indian Ocean as a New Political and Security Region*, 26.

<sup>29</sup> Brewster, *India and China at Sea*, 114.

<sup>30</sup> Anu Anwar, "China-Bangladesh Relations: A Three Way Balance between China, India and the US," *Merics*, 18 August 2022, <https://merics.org/>.

<sup>31</sup> Grare and Samaan, *The Indian Ocean as a New Political and Security Region*, 30-32.

<sup>32</sup> Virginia Marantidou, "Revisiting China's 'String of Pearls' Strategy: Places 'with Chinese Characteristics' and Their Security Implications," *Issues & Insights* 14, no. 7 (June 2014), 28, <https://www.files.ethz.ch/>.

<sup>33</sup> "Iran, Russia, China Hold Joint Naval Drill Amid Growing Ties," *Radio Free Europe/ Radio Liberty*, 21 January 2022, <https://www.rferl.org/>.

<sup>34</sup> "China Hesitates on Bailing Out Sri Lanka, Pakistan as Debt Soars," *Bloomberg*, 13 April 2022, <https://www.bloomberg.com/>; and ANI, "Pakistan Following Sri Lanka's Path to Land in Chinese Debt Trap," *WION*, 18 June 2022, <https://www.wionews.com/>.

<sup>35</sup> Behram Baloch, "Gwadar Protesters Threaten to Block CPEC Projects," *Dawn*, 14 November 2022, <https://www.dawn.com/>; and Bharatha Mallawarachi, "Sri Lankan Protest Chinese Funded Port City Project," *Seattle Times*, 4 April 2016, <https://www.seattletimes.com/>.





## A MULTILAYERED SECURITY ARCHITECTURE: RECOMMENDATIONS

China's investments and growing influence in the IOR destabilise the area's economy and security. Despite this, the region's increased security conundrum cannot be resolved by a formalised security architecture. There are frequent requests to formalise Indo-Pacific forums like Quadrilateral Security Dialogue (Quad) into an Asian NATO without considering the region's history of such organisations' failure. Within 25 years of their founding, the post-World War II treaty organisations for Southeast Asia (SEATO) and the Central Pacific (CENTO) both failed.<sup>36</sup> Due to existing physical, political, economic, cultural, and historical diversity, the region is mostly inappropriate for this type of construction. Furthermore, a group like this that doesn't include China will simply exacerbate Beijing's security issue and further destabilise a volatile region. Additionally, removing small but important nations close to these dangerous chokepoints from a security architecture causes unrest and is perceived as extra-regional intrusion.

A multilayered and inclusive security framework that includes both major powers and regional players is required due to the complexity and divergent opinions in the IOR. There are three different ways to express this arrangement. Such a plan should first address the worries of neighbouring states about regional problems like piracy and terrorism. For instance, Malaysia, Indonesia, and Singapore should be in charge of maintaining security in the Malacca Straits. Powerful governments' contributions will be confined to developing capability and exchanging maritime domain awareness. This will not only allay the worries of smaller governments but also shift the crucial ownership to more pertinent parties, maybe resolving the shared security conundrum of the region's large powers. Second, the major nations must carefully consider how they act in forums like the Quad and the United States-Australia-United Kingdom (AUKUS) trilateral. Cooperative international forums have the potential to either exacerbate or, by strategic signals, alleviate an adversary's security challenge. The AUKUS and Quad's naval exercises must be carried out in a way that sends a balanced message rather than merely being power plays that invite an equal response from the opposition. In addition, Quad and AUKUS should include systems that allow additional states to watch and take part in joint activities.

Third, there has to be more coordination and communication between regional groups like the IORA and COI, as well as maritime security-focused groups like the Indian Ocean Naval Symposium (IONS) and the Malacca Strait Patrols. (MSP).<sup>37</sup> In a region that is in chaos, formalised political and military interaction will help to create a shared understanding of maritime issues and may even help to resolve sources of contention. In other words, copying NATO is not the answer to the IOR's instability, and China cannot remain isolated either. India and the US need to accept that there will always be Chinese influence in the IOR. Beijing must also understand that, while developing naval capabilities, its security concerns in the IOR are overblown and that China cannot rule the region.

## CONCLUSION

It is paradoxical that an apparently anti-imperialist China is displaying the features it claims to detest—basically participating in a sort of neocolonialism—in its ambition for resource hoarding and military dominance in the IOR. The IOR goal of China is straightforward: to gain political clout, it must make vulnerable nations economically dependent. Beijing seeks to legitimise its dominance and utilise the Malacca Straits as a gateway to control the strategically significant Indian Ocean by portraying the straits as a weakness. A comprehensive and all-encompassing security architecture is required because of the rising militarization of the area and the divergent perspectives of the IOR governments. Local concerns of neighbouring governments should be addressed, and strategic communication concerning issues and disputes between big countries should be improved. On the other hand, sticking to a traditionalist security approach will only make large players' security issues worse and increase the likelihood that they will start fighting among themselves. The key is to normalise Chinese activity in the IOR without jeopardising stability or compromising the legitimate domains of influence of major players.

<sup>36</sup> Jagannath Panda, "The Elusive Quest for an 'Asian NATO,'" *Strategic Analysis* 45, no. 1 (2021): 58, <https://doi.org/>; and Ani Prakash, "Communist Containment in the Middle East: Emergence of the Central Treaty Organization (CENTO)," *Association for Diplomatic Studies & Training*, 27 June 2022, <https://adst.org/>.

<sup>37</sup> Grare and Samaan, "The Indian Ocean as a New Political and Security Region, 205-14; and Collin Koh Swee Lean, "CO16091 | The Malacca Strait Patrols: Finding Common Ground," *RSIS Commentary*, 20 April 2016, <https://www.rsis.edu.sg/>.



# A REVIEW ON CHANGING SCENARIO OF DOMESTIC VIOLENCE SINCE A DECADE IN TELANGANA AND INDIA

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## ABSTRACT

*Domestic violence is pervasive, as evidenced by the fact that it has been documented in diverse cultures and societies across the globe. There is a growing realization that domestic violence is a global phenomenon and a significant problem in developing nations as well. Despite this, domestic violence takes on distinct forms and patterns based on the local context and is recognized as a significant public health concern. Abuse is the leading cause of nonfatal injuries among women, who suffer, blame themselves, and choose not to report it. In fact, women often rationalize and internalize their abuse by believing that they provoked the abuser, thus justifying and accepting it as their fate so that they can continue to live with it. domestic violence committed by a spouse or companion is reported to have severe consequences for the physical, mental, and reproductive health of women, as well as a high mortality risk.*

*In addition to emphasizing the prevalence of domestic violence, the studies in this review emphasize the mental, physical, sexual, and reproductive health effects of domestic violence on the lives of many Indian women. We found higher domestic violence change hence, The stricter laws are needed to India to protect women from domestic violence.*

**KEY WORDS:** Domestic violence, silence domestic violence, trauma, women abuse.

## 1. INTRODUCTION

Domestic violence is pervasive, as evidenced by the fact that it has been documented in diverse cultures and societies across the globe. There is a growing realization that domestic violence is a global phenomenon and a significant problem in developing nations as well. Despite this, domestic violence takes on distinct forms and patterns based on the local context and is recognized as a significant public health concern. Abuse is the leading cause of nonfatal injuries among women, who suffer, blame themselves, and choose not to report it. In fact, women often rationalize and internalize their abuse by believing that they provoked the abuser, thus justifying and accepting it as their fate so that they can continue to live with it. domestic violence committed by a spouse or companion is reported to have severe consequences for the physical, mental, and reproductive health of women, as well as a high mortality risk.

The prevalence of domestic violence in India ranges from 6% to 60%, with substantial variation between states and settings. However, the magnitude, scope, and burden of the problem in the country have not been adequately accounted for, as reporting on the issue remains insufficient. In India, there are few community-based micro level studies that focus on physical violence, but there is scant evidence on psychological and sexual violence. There is also lack of empirical evidence regarding its numerous antecedents, outcomes, and relationships. Various South Asian studies on domestic violence have identified a number of associated individual and household risk factors, indicating that certain demographic factors, such as age, number of surviving male children, and

living in an extended family, are associated with domestic violence. In developing countries, protective factors include higher socioeconomic status, women's economic independence, the quality of marital relationships, and higher levels of education among women. Globally, women who are younger, have a lower household income, are less educated, belong to a lower caste, are not employed, have a partner who drinks or gambles, etc. are at a greater risk of experiencing domestic violence. However, the issue of domestic violence and its underlying social determinants in developing nations, particularly India, remain understudied.

## 2) OBJECTIVES

To review on the women facing violence, physical and emotional and psychological violence at home or work place, to understand the changing scenario of domestic violence, to understand the silence domestic happening at family and households.

## 3) METHOD

Systemic review of literature and narrative search. Our initial search of DV articles published in PubMed, OVID, Cochrane Reviews, Psyc INFO, and CINAHL between 1 April 2003 and 1 January 2020 yielded 50 articles We identified many articles using search terms 'domestic violence' and 'India', 20 articles using 'intimate partner violence' and 'India', 10 articles using 'spouse abuse' and 'India', 10 articles using 'partner violence and India', 10 articles using 'gender-based violence' and 'India'



#### 4) FINDINGS

The last decade of quantitative India domestic violence research has included a variety of large regional and international studies in addition to lesser scale, single-state studies. However, the virtually exclusive use of cross-sectional designs in this literature has limited the ability to draw causal inferences. The investigations at the national and regional levels employed larger Typically, nationally or sub nationally representative samples (average sample size: 25,857 women; range: 111–124,385) are used to provide international or regional epidemiologic comparisons. The single-state studies utilized reduced sample sizes (average: 1109 women, range: 30–9639) to provide a more in-depth evaluation of domestic violence experienced by a specific population of women.

Only 12% (17/137) of the reviewed studies employed a prospective design in order to draw causal inferences. Six of these 13 utilized the NFHS-2 and four-year follow-up data from the rural regions of four states to evaluate the effect of domestic violence on mental health disorders (Shidhaye & Patel, 2010), a woman's adoption of contraception, unwanted pregnancy occurrence (Stephenson et al., 2008), uptake of prenatal care (Koski et al., 2011), early childhood mortality (Koenig et al., 2010), functional autonomy and reproduction (One study used a case-control design to examine the association between domestic violence and child mortality (Varghese, Prasad, & Jacob, 2013), and another used a randomized control design to examine the effectiveness of a mixed individual and group women's behavioral intervention in reducing domestic violence and marital conflict over time (Saggurti et al., 2014). The remaining prospective studies evaluated the causal association between domestic violence and incident STIs and/or attempted suicide (Chowdhary & Patel, 2008; Maselko & Patel, 2008; Weiss et al., 2008), domestic violence and maternal and neonatal health outcomes (Nongrum et al., 2014), the effect of the type of interviewing (face-to-face versus audio computer-assisted self-interviews) on domestic violence reporting (R face-to-face versus audio computer-assisted self-interviews) on domestic violence reporting (Rathod, Minnis, Subbiah, & Krishnan, 2011), trends in domestic violence occurrence over time (Simister & Mehta, 2010), and the effect of the type of interviewing (face-to-face versus audio computer-assisted self-interviews) on domestic violence reporting (Rathod, Minnis, Subbiah and the effect of a woman's or her partner's employment status change on her exposure to domestic violence (Krishnan et al., 2010). Only 61% (84/137) of studies reported employing a validated scale or attempting to validate the instrument they ultimately employed. When the use of a validated instrument was reported, the majority (82% or 69/84) were designed for the North American cultural context. Europe (i.e., the modified CTS, the Abuse Assessment Screen, the Index of Spouse Abuse, the Woman Abuse Screening Tool, the Partner Violence Screen, the Composite Abuse Scale, and the Sexual Experience Scale). In actuality, only 15 of the studies reporting the use of a validated questionnaire adapted or developed their instrument to the Indian context by surveying themes raised by the prior qualitative literature (i.e. use of

belts, sticks, and burning to inflict physical abuse, restriction on return to natal family home, prohibition on natal family visiting marital home). As anticipated, these studies found higher rates of domestic violence. Some authors who did not use validated, widely used domestic violence scales (i.e. CTS) cited space constraints and inadequacy of extant tools for measuring domestic violence in the Indian cultural context in private communications. Some authors who chose not to use validated, widely used domestic violence scales (i.e. CTS) stated they did so due to space constraints and the inadequacy of existing measurement instruments. Domestic violence in the cultural context of India.

#### 5. CONCLUSION

In India and South Asia, domestic violence research has experienced phenomenal development over the past decade. Our systematic review contributes to the growing body of evidence by providing an essential summary of the epidemiologic studies conducted during this crucial time period and by highlighting the magnitude and severity of the ongoing epidemic in India. Comprehensively, the reviewed literature suggests that four out of ten Indian women (when polled) are pregnant. About multiple forms of abuse) have experienced domestic violence in their lifespan, and one-third have experienced domestic violence in the past year. This is consistent with the WHO lifetime estimate of 37.7% (95% confidence interval: 30.9%–43.1%) in South-East Asia (defined as India, Maldives, Sri Lanka, Thailand, Bangladesh, and Timor-Leste) and is higher than the WHO regional estimates for Europe, the Western Pacific, and possibly the Americas. In addition to emphasizing the prevalence of domestic violence, the studies in this review emphasize the mental, physical, sexual, and reproductive health effects of domestic violence on the lives of many Indian women. The stricter laws are needed to India to protect women from domestic violence .

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# A NOVEL TABLE TENNIS ROBOT USING ARDUINO

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## ABSTRACT

*In this work, a Smart Ping Pong Robot has been suggested. This robot is being used exclusively for table tennis applications so that the player can practise or play without an opponent. The ball is automatically thrown by the robot so that players can compete against it. In this system, the actuator, also known as the crank shaft piston, is powered by a power source. 12 volts DC are created by converting the power source (230V AC). The crank shaft piston moves mechanically as a result of the electrical energy. The ball is fed from the basket to the end effector using this piston (Ball delivery). When a DC wiper motor is activated, a DC wiper motor is fixed at the bottom of the disc, and the disc is turned 45 degrees to the left and 45 degrees to the right. in order for the ball to be delivered in the forehand and middle forehand directions. Moreover, the ball is given top, side, and reverse spin by this robot. The design of the work has one degree of flexibility, and it rotates to deliver balls in various directions. Thus, our robot plays a positive role in the robot table tennis development.*

**KEY WORDS-**DC wiper motor, Forehand, Forehand middle

## 1.INTRODUCTION

A robot is an artificial mechanical or virtual entity that is typically an electro-mechanical device that is controlled by electronic circuitry or a computer programme. In addition to humanoids like Honda's Advanced Step in Innovative Mobility and the Ping Pong Playing Robot, robots can also be autonomous or semi-autonomous. Other types of robots include industrial robots, swarm robots that are controlled by a group of robots, and even microscopic nanorobots. A robot may appear intelligent or have thoughts of its own by emulating a human appearance or automating movements.

However, the Robotics Industries Association (formerly the Robotics Institute of America) provided the definition that has been regarded as appropriate in the current state-of-the-art in November 1979. "A reprogrammable multipurpose manipulator designed to move material, parts, tools, or specialised devices via multiple programmed motions for the performance of a variety of tasks" is how an industrial robot is described.

Robots are recognised to reduce resource waste, increase quality, and improve working conditions. Robots are entering a new phase of adaptability and usability that will make them omnipresent helpers that will enhance our quality of life by providing effective services in our homes, workplaces, and public spaces. Robots can be categorised according to the purpose for which they are used. Robots in society, industrial robots, service robots, educational robots, general-purpose autonomous robots, etc.

Industrial robots typically have a multi-linked manipulator with jointed arms and a fixed-surface end effector. A gripper assembly is one of the most popular types of end effectors. A manipulating industrial robot is defined by the International Organization for Standardization in ISO 8373. For use in industrial automation applications, "an automatically controlled, reprogrammable, multipurpose

manipulator programmable in three or more axes, which may be either fixed in place or movable"

The International Federation of Robotics, the European Robotics Research Network and other national standards bodies all utilise this concept.

The most common types of industrial robots used in the production and delivery of goods are fixed robotic arms and manipulators. Less is known about what a "service robot" is. The International Federation of Robotics' suggested definition of a service robot is "a robot that runs semi- or fully autonomously to perform services useful to the well-being of humans and equipment, excluding manufacturing activities."

Teachers employ robots to assist them in the classroom. Beginning in the 1980s, turtle-shaped robots were employed in classrooms and were programmed in the Logo programming language.

Moreover, there have been robot-shaped gadgets such as Michael J. Freeman's Leachim teaching computer from 1974 and 2-XL, a robot-shaped game/teaching toy based on an 8-track tape player.

The general-purpose autonomous robots are capable of a wide range of tasks on their own. Generally speaking, general-purpose autonomous robots are able to move around autonomously in familiar environments, manage their own recharging requirements, interact with electronic doors and elevators, and carry out other simple duties. The general-purpose robots can connect to networks, software, and accessories to expand their utility, just like PCs can. They may be able to identify individuals or items, communicate, be a companion, keep an eye on the environment, react to alerts, gather supplies, and carry out other helpful functions.

The general-purpose robots can carry out a number of tasks at once or switch between duties throughout the course of the day. Some of these robots attempt to mimic humans and may even look somewhat human-like. A humanoid robot is one of this kind. Since no humanoid robot

has been able to successfully explore a room it has never been in before, humanoid robot technology is currently in a very early stage. Consequently, despite their intelligent behaviours in their well-known surroundings, humanoid robots are actually extremely constrained.

## II. DESCRIPTION OF TABLE TENNIS

Two or four players use a table tennis bat to strike a light ball back and forth in the game of table tennis, often known as ping pong. A net divides the hard table on which the game is played. Players must return a ball so that it bounces on the other side of the table after only one bounce on their side, with the exception of the first serve. When a player fails to return the ball in accordance with the rules, points are earned. Play is brisk and necessitates quick responses. The ball's altered trajectory and decreased alternatives due to spinning provide the hitter a significant edge. The hitter has a strong chance of scoring when doing so if the spin is successful.

A robot cannot successfully play table tennis or any other continuous interaction sport without quick and precise perception and control. Since it is a traditional real-time "eye-hand" platform, academics from around the world have been becoming increasingly interested in it. John Billingsley unveiled the first robot capable of playing table tennis in 1983. Since then, a number of robot systems for playing table tennis have been created. Industrial robotic arms were used to create numerous prototype systems.

*a. Table Tennis Robot:* Fig.1 shows the block diagram of the system

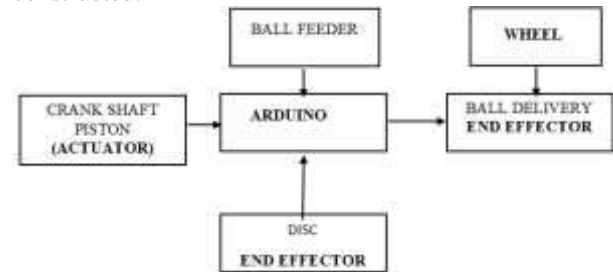
In order to play the game, each sport basically requires two players or two teams. Unfortunately, one participant may be interested in playing while the other may not. We created a robot specifically for the game of table tennis in order to get around this ambiguity. It only possesses one degree of freedom. When a player is battling this robot, the robot automatically throws the balls every second at a distance of one second. The current table tennis robot was created with the aid of a microcontroller and another programming device. But, utilising mechanical components, we created a Ping-Pong robot to lower the cost and complexity. Using a crank shaft piston as a manipulator, a 12 volt DC source is employed to excite or power it (actuator). An end-effector that rapidly launches the ball is a wheel. The ball will pitch towards the player as it lands on the table tennis board.

DC motor, PVC pipe, DC wiper motor, wheel, and basket are some of the main parts that went into our design. The crank shaft (Manipulator), which moves back and forth and propels the ball towards the end effector, is powered by a DC motor. This motor's specs are 12 volts, 1 amp, and 1000 revolutions per minute. The metal disc may rotate at an angle of 180 degrees thanks to the usage of a DC wiper motor. We achieve one degree of freedom with this mechanism. 12 volts, 40 watts, 1-1.5 amps, and 40 rpm are the motor's specifications.

The piston motion and the tubing used to feed the balls are made of PVC. Moreover, it serves as the pathway for the ball's delivery outside. The end effector of this mechanism, which turns the disc at a 180-degree angle, is made of mild steel with

a 3 inch thickness and 225 inch diameter. The foundation that supports the entire body is made of mild steel with a 6mm thickness.

The piston arrangement's crank shaft is designed first. PVC pipe was used in the piston's construction. One ball at a time will be pushed by the piston because of the way it is constructed.



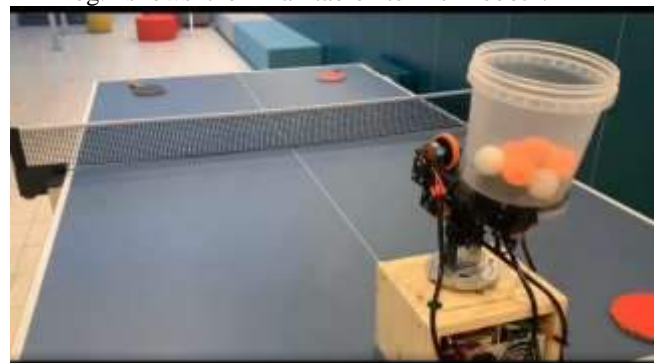
**Fig.1. Block diagram of the Proposed system**

The bolt is attached to the drill that has a 5 mm diameter hole in the disc. A bolt is welded onto the screw's top. The wiper motor shaft is fastened into the hole (bolt) after being inserted. The shaft moves back and forth when the motor is turned ON. This back-and-forth movement contacts the bolt, which causes the disc to rotate at a 45-degree angle to the left and the right.

The top of the manipulator is equipped with a basket that can accommodate 80 to 100 balls. A gear motor with a 60 rpm speed is kept at the bottom of the basket to push the balls one at a time to the manipulator. The motor's shaft is constructed so that it feeds only one ball at a time, one at a time, down to the manipulator. The ball is pushed or forced towards the end-effector by the piston.

The wheel, which is connected to the motor shaft and rotates when the motor is turned on, is fixed by a PVC pipe that has been carved into the end effector. At the side of the PVC pipe, a setup is constructed to hold the motor. The wheel is positioned so that it touches the ball's upper surface. The ball at the end-effector is delivered quickly towards the player when the motor is turned ON.

Fig.2 shows the final table tennis Robot .



**Fig.2. Table Tennis Robot**

Depending on the position of the wheel, this robot may give the ball top, side, or reverse spin. The ball will spin top-down if the wheel is positioned as in picture 3. The ball will spin in the opposite direction if the wheel is locked at the bottom as indicated in figure 4. The side of the ball is revealed if the wheel is fixed at the side.



**Fig.3.Top Spin**



**Fig.4Side Spin**



**Fig.5.Reverse spin**

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### III.CONCLUSION

Our research's main output is a clever ping pong robot that we designed. As a result, we created a smart ping pong robot that solves the issue that other robots created on an electrical platform had. Hence, by using this design, we have created a robot that performs well while costing less than previous robots. So, our robot will aid table tennis players in honing their talents. We can avoid the circuitry difficulty that could arise with an electrical platform because our design is for a mechanical platform.

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# STRESSORS AND COPING MECHANISM OF BPED STUDENTS DURING THE PANDEMIC

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## ABSTRACT

*This research study is all about the Stressors and Coping Mechanisms of BPED Students during the Pandemic at Nueva Ecija University of Science and Technology.*

*The descriptive research design was used. Descriptive studies are usually the best methods for collecting information that have been demonstrated the relationship and described the world as it exists. An online survey questionnaire was used in collecting the data that needed to make the research study successful.*

*Researchers adopted the study of Shannon E. Ross, Bradley C. Niebling and Teresa M. Heckert (2008) about the four factors of stress that affects the students in an International School. In this research study we have the Interpersonal, Intrapersonal, Academic and Environmental Factors that affect the students, and each factor have five questions provided.*

*As a finding in the study, the Bachelor of Physical Education Students were stressed mostly on intrapersonal factors particularly in scenario of change in sleeping habits. Whilst students are never stress in the scenario of Serious argument with Teacher/Instructor under the academic factor.*

**KEYWORDS:** *stressors, interpersonal factor, intrapersonal factor, academic factor, environmental factor*

## INTRODUCTION

Students in today's generation are more likely to be with stress, even before the new normal setting of classes. We, the researchers, pursued to conduct this study because of the needs of new information regarding on the factors of stress that affects the academic performance of student, in relation to their mental health. The (3) three foreign researchers, Shannon E. Ross, Bradley C. Niebling and Teresa M. Heckert, already conducted this topic more than a decade ago.

Stress is our body's response to pressure. Many different situations or life events can cause stress. It is often triggered when we experience something new, unexpected or that threatens our sense of self, or when we feel we have little control over a situation (mentalhealth.org.uk, 2021) Stress is your body's way of responding to any kind of demand. It can be caused by both good and bad experiences. Stress can affect our everyday routine. Stress can also affect the studies, especially the students. And stress is not only experienced by the students, but also the people around us who is suffering with stress.

Psychology says that there are two kinds of stress, the positive and the negative stress. Positive stress helps to improve our performance. Sometimes it also plays as a factor in motivating ourselves. While the negative stress may lead our body to risks such as depression.

## MATERIALS AND METHODS

This research was conducted on BPED students of College of Education at Nueva Ecija University of Science and Technology to know and to be clear the Stressors and Coping Mechanisms of BPED Students during the Pandemic.

The researchers used the simple random sampling as the sampling technique. It is the effective way of choosing the sample population to show a non-biased and by chance for the respondents.

The data collected using a survey questionnaire. The researchers provided or applied the questionnaires to the respondents and get the information on the selected population.

The questionnaire was divided into four factors of stress: interpersonal, intrapersonal, academic, and environmental stress. There were five questions in every factors of stress provided.

Scales with their corresponding weights and ranges for each point was used to determine the factors of stress affecting the academic performances of the students.

Sampling is the process of choosing a group from a population to participate and be part of the study. It is the process of selecting several individuals for a study in such a way that the individuals selected represent the large group from which they were selected.

The sample size was determined using the Slovin's formula. The formula of this is:

$$n = \frac{N}{1 + Ne^2}$$

Where:

- N = Population
- e = Margin of Error
- n = Sample Size

The said formula was applied to compute the sample size of the population. The population of Bachelor of Physical Education Students at Nueva Ecija University of Science and Technology are 355, by the used of 5% margin of error, there were 188 students involved in this study. The researchers used the stratified random sampling procedure technique to highlight the subgroups within the sample size.

## RESULTS

The first and specific questions of this study are the sex, age, year level and locality of Bachelor of Physical Education Students at Nueva Ecija University of Science and Technology.



**Table 1. Respondents According to Sex**

Sex	Frequency	Percentage
Male	99	52.7%
Female	89	47.3%
<b>Total</b>	<b>188</b>	<b>100%</b>

As shown in table 1, respondents according to sex, one of the major factors that considered in the profile of students of Bachelor of Physical Education was their sex. In the tabular presentation, there were 99 (52.7%) male respondents and 89 (47.3%) female respondents of Bachelor of Physical Education Students who participated on the study and served as the

respondents of the research. Male students have the more dominant participation on the given study.

In accordance with these findings, the Bachelor of Physical Education Student of Nueva Ecija University was composed of many males than the female students that was participated on the given study.

**Table 2. Respondents According to Age**

Age	Frequency	Percentage
18 Below	2	1.1%
19-20	116	61.7%
21-22	66	35.1%
23 and Above	4	2.1%
<b>Total</b>	<b>188</b>	<b>100%</b>

As shown in table 2, respondents according to age, most of the respondents were in the age between 19-20 years old. It was composed of 116 (61.7%) respondents. Followed by the age between 21-22 years old with 66 (35.1%) respondents. There were only 4 (2.1%) respondents in the age of 23 and

Above. And last, the 2 (1.1%) respondents were fell in 18 Below.

In accordance with these findings, the Bachelor of Physical Education Student of Nueva Ecija University of Science and Technology was in the normal range of their age for a College Students.

**Table 3. Respondents According to Year Level**

Year Level	Frequency	Percentage
First Year	15	7.97%
Second Year	105	55.81%
Third Year	68	36.17%
<b>Total</b>	<b>188</b>	<b>100%</b>

As we can noticed in table 3, respondents according to year level, second year students have the more dominant participation on the given study with 105 (55.81%) respondents.

Followed by the third-year students with 68 (36.17%) respondents and 15 (7.97%) respondents for the first-year students.

**Table 4. Respondents According to Locality**

Locality	Frequency	Percentage
Urban Area	68	36.2%
Rural Area	120	63.8%
<b>Total</b>	<b>188</b>	<b>100%</b>

In accordance with the respondent's locality in table 4, most of the Bachelor of Physical Education Student at Nueva Ecija University of Science and Technology are currently living in

Rural Area with 120 (63.8%) respondents. For the Urban Area, a number of 68 (36.2%) respondents have gathered.

Most of the respondents from Bachelor of Physical Education are currently living in Rural Area than Urban Area.

**Table 5. Findings of the Study**

Factors of Stress	Frequency	Weighted Mean	Verbal Interpretation	
<b>Interpersonal Factor</b>				
1. Trouble with parents	1	50	1.87	Sometimes
	2	112		
	3	26		
2. Trouble with friends	1	63	1.74	Sometimes
	2	112		
	3	13		
3. Roommate conflict	1	92	1.58	Never
	2	82		
	3	14		
4. Be with people you don't know	1	52	1.86	Sometimes
	2	111		
	3	25		



5. Change in social activities	1	20	2.09	Sometimes
	2	131		
	3	37		
<b>Intrapersonal Factor</b>				
1. Financial difficulties	1	9	2.32	Sometimes
	2	110		
	3	69		
2. New responsibilities	1	7	2.34	Sometimes
	2	110		
	3	71		
3. Death of family member	1	97	1.6	Never
	2	70		
	3	21		
4. Change in sleeping habits	1	4	2.58	Always
	2	72		
	3	112		
5. Change in eating habits	1	6	2.48	Always
	2	85		
	3	97		
<b>Academic Factor</b>				
1. Lower grade than anticipated	1	22	2.07	Sometimes
	2	130		
	3	36		
2. Increased class workload	1	3	2.38	Sometimes
	2	110		
	3	75		
3. Serious argument with Teacher/Instructor	1	123	1.41	Never
	2	52		
	3	13		
4. Missed too many classes	1	71	1.73	Sometimes
	2	97		
	3	20		
5. Many school activities and events	1	11	2.33	Sometimes
	2	105		
	3	72		
<b>Environmental Factor</b>				
1. Messy living condition	1	42	1.95	Sometimes
	2	112		
	3	34		
2. Change in living environment	1	40	1.94	Sometimes
	2	119		
	3	29		
3. Waited in a long period of time	1	18	2.12	Sometimes
	2	129		
	3	41		
4. Placed in unfamiliar situation	1	30	2.03	Sometimes
	2	122		
	3	36		
5. Vacation/Breaks	1	42	1.89	Sometimes
	2	124		
	3	22		
<b>Grand Weighted Mean</b>			<b>1.94</b>	<b>Sometimes</b>

As the results from the online survey derives in table 5, findings of the study, the respondents that rated the interpersonal factor was sometimes stressful when it comes to trouble with parents, as an evidence the weighted mean ranged into 1.87. The trouble with friends weighted mean was 1.74 and with verbal interpretation of sometimes stressful. Followed by roommate conflict with a weighted mean of 1.58 and a corresponding verbal interpretation of never stressful. Work with people you don't know gained 1.86 weighted mean with an interpretation of sometimes stressful. And last for interpersonal factors was

change in social activities that considered sometimes stressful for the respondents with a weighted mean of 2.09.

In interpersonal factor, change in social activities was the most stressful for the respondents with the highest weighted mean of 2.09 and roommate conflict has the lowest number of stress answered by the respondents with the weighted mean of 1.58.

Under the second factor, the intrapersonal, respondents were rated the financial difficulties as sometimes stressful with a



weighted mean of 2.32. Another factor was new responsibilities, rated as sometimes stressful of the respondents with a weighted mean of 2.34. The death of the family members was rated as never stressful for the respondents with a weighted mean of 1.6. Change in sleeping habits was rated as always stressful for respondents with a weighted mean of 2.58. And lastly, the change in eating habits was rated as always stressful with a weighted mean of 2.48.

In intrapersonal factor, death of family members was the least stressful for the respondents with a weighted mean of 1.6 and change in sleeping habits had the greatest number of stress to a student with a weighted mean of 2.58.

The third one, we have the academic factor; respondents were rated the lower grade than anticipated as sometimes stressful with a weighted mean of 2.07. Another factor is increased class workload rated as sometimes stressful with a weighted mean of 2.38. Serious argument with Teacher/Instructor was rated as never stressful with a weighted mean 1.41. Missed too many classes were rated as sometimes stressful with a weighted mean of 1.73. And lastly, many school activities and events were rated as sometimes stressful with a weighted mean of 2.33.

In academic factor, Serious argument with Teacher/Instructor had the lowest number of stress to a student with a weighted mean of 1.41 and increased class workload was the most stressful for the respondents with the lowest weighted mean of 2.38.

In environmental factor that respondents marked their selves sometimes stress when it comes to messy living condition with a weighted mean of 1.95. Another factor of stress is change in living environment with a weighted mean of 1.94 with a verbal interpretation of sometimes stressful for the respondents. Followed by the waited in a long period of time with a weighted mean of 2.12 and verbal interpretation of sometimes stressful. Placed in unfamiliar situation had a weighted mean of 2.03 with a verbal interpretation of sometimes stressful for the respondents. And lastly, vacation/breaks which was considered as sometimes stressful for the respondents with a weighted mean of 1.89.

In Environmental factor, the least stressful scenario or factors is vacation breaks that comes from the respondents with a weighted mean of 1.89 and the greatest number of stress factors is the waited in a long period of time that comes from the respondents with a weighted mean of 2.12.

Among the four factors of stress and its given questions, change in sleeping habits marked as always stressful under the intrapersonal factors for the students of Bachelor of Physical Education, with a corresponding weighted mean of 2.58. On the other hand, serious argument with Teacher/Instructor ranked least or never stressful among the questions under the academic factor with a weighted mean of 1.41.

## SUMMARY OF FINDINGS

This study was conducted to know the Stressors and Coping Mechanisms of BPEd Students during the Pandemic. By the used of stratified random sampling procedure, one hundred eighty-eight (188) respondents were involved for the study conducted. The Slovin's formula was used to compute the sample size. The online survey questionnaire was the instrument used to gather a data to the students.

The following are the specific questions on this study and their findings:

How may the profile of students be described in terms of their Sex, Age, Year Level and Locality?

Therein 99 (52.7%) male respondents and 89 (47.3%) female respondents of Bachelor of Physical Education Students who participated on the study.

As to their age, most of the respondents were in the age between 19-20 years old. It was composed of 116 (61.7%) respondents. Followed by the age between 21-22 years old with respondents of 66 (35.1%). There are only 4 (2.1%) respondents that in the age of 23 and Above. And last is the 2 (1.1%) respondents wherein 18 Below.

In the grade level, second year students have the more dominant participation on the given study with 105 (55.81%) respondents. Followed by the third-year students with 68 (36.17%) respondents and 15 (7.97%) respondents for the first-year students.

And for the locality, most of the Bachelor of Physical Education Student at Nueva Ecija University of Science and Technology are currently living in Rural Area with 120 (63.8%) respondents. For the Urban Area, a number of 68 (36.2%) respondents have gathered in accordance with their socio-demographic profile.

Which factors of stress mostly affect the academic performance of students in terms of Interpersonal Factor, Intrapersonal Factor, Academic Factor and Environmental Factor?

In interpersonal factor, change in social activities was the most stressful for the respondents with the highest weighted mean of 2.09 and roommate conflict has the lowest number of stress answered by the respondents with the weighted mean of 1.58.

In intrapersonal factor, death of family members was the least stressful for the respondents with a weighted mean of 1.6 and change in sleeping habits had the greatest number of stress to a student with a weighted mean of 2.58.

In academic factor, Serious argument with Teacher/Instructor had the lowest number of stress to a student with a weighted mean of 1.41 and increased class workload was the most stressful for the respondents with the lowest weighted mean of 2.38.

In Environmental factor, the least stressful scenario or factors is vacation breaks that comes from the respondents with a weighted mean of 1.89 and the greatest number of stress factors is the waited in a long period of time that comes from the respondents with a weighted mean of 2.12.

Among the four factors of stress and its given questions, change in sleeping habits marked as always stressful under the intrapersonal factors for the students of Bachelor of Physical Education, with a corresponding weighted mean of 2.58. On the other hand, serious argument with Teacher/Instructor ranked least or never stressful among the questions under the academic factor with a weighted mean of 1.41.

## CONCLUSION

1. Among all the stress factors presented, the findings revealed that change in sleeping habits was the most stressful for Bachelor of Physical Education students and this is under intrapersonal factors. This factor has a significant impact on the students. This type of stress has an impact on the students' academic performances.
2. There is a significant effect between the demographic profile of the students and the factors of stress.



3. There is a significant relationship between stress and the academic factors of the students.

*the Philippines and Argentina. The Journal of Psychology, 150(3), 281–299.*

<https://doi.org/10.1080/00223980.2015.1024595>

## RECOMMENDATION

1. Students who pursue a bachelor's degree in physical education should develop coping strategies in dealing with changes in sleeping habits, which is a major stressor that has an impact on their academic performance.
2. Teachers can collaborate to help make learning less stressful for students by assisting them in managing their stress.
3. Parents can also assist by regularly monitor their children to ensure that they are performing well and having positive coping mechanism in managing stress.
4. The students must undergo seminars or training in stress coping mechanism so that they may be able to learn how to handle stress with regards to their daily school activities.
5. Additional studies on factors of stress affecting the academic performances of students are encouraged to support the results of this study.
6. Use a larger sample respondent not only some students not only from Bachelor of Physical Education for more accurate and clear findings.
7. The future researchers can use the survey questionnaire of the researcher and suggested to be modified that will be inclined on the situation of new normal setting.

## ONLINE SOURCES

1. [http://www.academia.edu/students\\_factors\\_of\\_stress](http://www.academia.edu/students_factors_of_stress)
2. <http://web.ebscohost.com/ehost/delivery?vid=21&hid=5&sid=7bb67b43-f19a-44df-bba4-7a>.
3. <https://dx.doi.org/10.22161/ijaems.511.6>
4. <https://www.tandfonline.com/doi/ful.10.1080/02673843.2019.1596823>
5. <https://edarxiv.org/praz/download?format=pdf>
6. <https://doi.org/10.13005/bpj/1404>
7. <https://doi.org/10.1080/00223980.2015.1024595>

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## ENTREPRENEURIAL INTENTION THEORIES

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### ABSTRACT

*The rising rate of unemployment in the Indian economy implies the need to shift the perceptions of the young graduates from job seeker to job creator. Entrepreneurship serves as the suitable sustainable solution to the rising unemployment. With the thriving interest in the studies on entrepreneurship through the entrepreneurial intention, the current study will try to elaborate on the two most cited theories of entrepreneurial intention i.e. The Theory of Planned Behavior developed by Ajzen and Entrepreneurial Event Model developed by Shapero and Sokol. The Theory of Planned Behavior posits that attitude towards behavior, subjective norms and perceived behavioral control influences entrepreneurial intention which in turn predicts entrepreneurship behavior. According to Entrepreneurial Event Model a new venture is created only when there is a positive or negative displacement in the life event of an individual. With the occurrence of displacement a new company is form based on the perception of desirability and perception of feasibility. Based on the available, the study found Entrepreneurial Event Model as slightly superior to the Theory of Planned Behavior.*

**KEYWORDS:** *Entrepreneur, Entrepreneurship, Entrepreneurial Intention, Employment Generation*

### INTRODUCTION

In recent decades, entrepreneurship has emerged as one of the most crucial tools for addressing the unemployment issue. Along with economic growth, entrepreneurship also raises per capita income and lowers poverty rates (Goetz et al., 2012). The actions that a person takes to launch a new firm are referred to as entrepreneurial activities. Since the variables that affect entrepreneurship may have various effects, no proximal variable can reliably forecast entrepreneurship behavior. Entrepreneurship is a type of planned activity, it may best be predicted by intention, which involves an active cognitive process that directs beliefs, perceptions, and other exogenous inputs into the intention to act and subsequently the actual action (Ajzen, 1991). Before beginning the entrepreneurial process, it is essential to comprehend entrepreneurial aim as it relates to the reason for launching a new business (Gelderen et al., 2008). Intentional studies are strongly advised to understand the predictors of entrepreneurial behavior because starting a new business necessitates deliberate and planned decisions (Ajzen, 1991).

Numerous academics from all around the world have defined entrepreneurial intention with the idea of an individual's thinking at its core. According to Thompson (2009), having an entrepreneurial intention is having a conscious understanding of one's capacity to launch a new business and a belief in one's potential to do so in the future. According to Chhabra, Raghunathan, and Rao (2019), entrepreneurial intention is a mindset that ultimately leads a person to creating a new business concept and pursuing an entrepreneurial career. It shows how much work a person is willing to put forth to launch a new business. Entrepreneurial

intention can be defined as a person's perception of a problem and conception of a plan to address it by starting a business in the future.

Since the early 1990s, there has been a significant increase in the number of research publications with an entrepreneurial focus. The analysis of this published literature, including journals, articles, conference proceedings, theses, and other works, is the primary method for obtaining the necessary knowledge of the relevant field. Journals offer greater insight among the accessible sources of literature because they are continually being improved. Numerous research on entrepreneurial intent have been done throughout the years using a single theory or a combination of theories and models. The two ideas that are most frequently cited are the entrepreneurial event model and the theory of planned conduct. Many academics have used these models and improved the original models over the past 20 years to create new models. The Theory of Planned Behavior and the Entrepreneurial Event Model continue to serve as the foundation for studies on entrepreneurial purpose.

As a result, it became essential to comprehend the Theory of Planned Behavior and the Entrepreneurial Event Model in great detail. The current study will provide a deeper understanding of the aforementioned theories and their restrictions when applied to entrepreneurial purpose.

### ENTREPRENEURIAL INTENTION

Numerous academics from all around the world have defined entrepreneurial ambition with the individual's attitude as the key concept. According to Chhabra, Raghunathan, and Rao (2019), entrepreneurial intention is a mentality that



eventually motivates a person to create a new business idea and pursue an entrepreneurial career. Entrepreneurial intention is the will to learn more, engage in entrepreneurial activities, and launch a new firm with the goal of being self-employed (Tkachev & Kolvereid, 1999; Choo & Wong, 2006 as cited in Nguyen, 2018). The effort a person is willing to put out to engage in that entrepreneurial conduct is shown by their entrepreneurial ambition (Ismail et al., 2015). Entrepreneurial intention can be defined as a person's perception of a problem and conception of a plan to solve it by starting a business in the future.

## LITERATURE REVIEW

In the last two decades, studies on entrepreneurial intention have increased rapidly. The existing models and theories applicable to the study of entrepreneurial intention were developed by Bandura (1977). "the social learning theory", Bird (1988), Shapero and Sokol (1982) "Entrepreneurial event model", Ajzen (1991) "The theory of planned behavior, Krueger and Brazel (1994). Researchers and academicians have made the effort to point out the most accurate theory or model that could be adopted in the study of entrepreneurial intention. The two most cited theories were the Theory of planned behavior developed by Azjen (1991) and entrepreneurial event model developed by Shapero&Sokol (1982).

The applicability of the theory of Planned behavior still remains consistent as tested by Linan& Chen (2006) on two different cultural environment, Autioetal. (2001) also tested the applicability of the theory of Planned behavior across international border and found that all the independent variables had significant relationship with the dependent variable, Subjective norm was found to have the weakest influence on the dependent variable, additional variables were also added to the existing theory of Planned behavior as moderating variables or as an extension to the existing model, in order to overcome the limitations of the original model Karimi et al., (2013), Kautenen et al., (2009), Padmavidhi (2009), Linan (2006), Linan (2009) and Hajek et al., (2014).

Entrepreneurial event model was developed specifically to study the entrepreneurship process through the entrepreneurial event model in their studies uses either two of the variable or the entire variables. Ali et al. (2016) investigated entrepreneurial intention by taking two variables from entrepreneurial event model and adding self- efficacy to the study while Yamina et al. (2019) took only perceived desirability and perceived feasibility both the studies confirm the positive impact of desirability and feasibility on entrepreneurial intention. Rangaet al. (2019) and Ngugi et al.

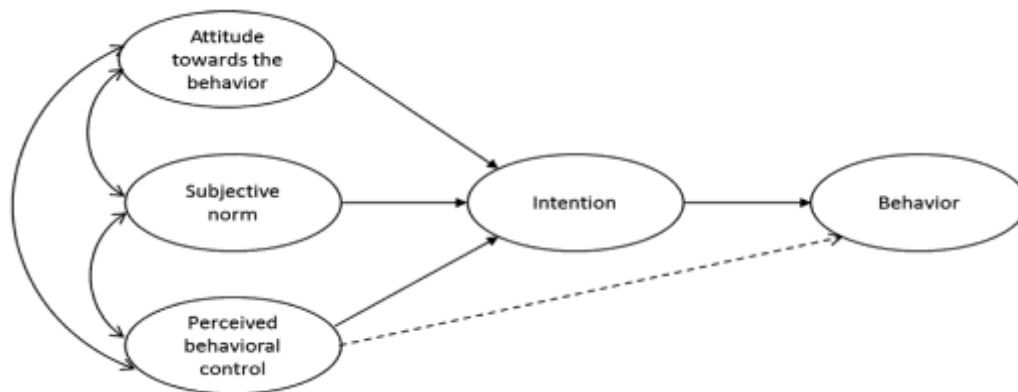
(2012) inferred that all the three independent variables of the Entrepreneurial Event Model have a positive relationship with the dependent variable. In another study conducted by Ndaghu et al. (2016) the independent variables of the model explained only 64.7% of the attributes that influence entrepreneurial intention, the study proposed further research to explore other factors that contribute in the formation of entrepreneurial intention.

(Rai et al., 2017 ; Mwange, 2018 ) Review and evaluated all the existing models of entrepreneurial intention which might have limited their effort to provide a comprehensive insight into each of the models whereas Krueger et al., (2000) conducted a study on both the theories which implied that attitude and subjective norms of Theory of Planned behavior as related to perceived desirability of entrepreneurial event model while perceived behavioral control as related to perceived feasibility, the study suggested Entrepreneurial event model as slightly superior to the theory of Planned behavior in studying entrepreneurial intention. Therefore the main purpose of the study is to give a simplified and comprehensive insight on the two mentioned theories.

## THEORY OF PLANNED BEHAVIOR

The theory of planned behavior is an enhancement of the theory of reasoned action (Ajzen & Fishbein, 1975) which proposed a model to predict the execution of a behavior with attitude toward behavior and subjecting norms as the predicting variables, with intention acting as a mediator between the variables and the behavior. The theory of planned behavior was developed to address the problem with the theory of reasoned action's inability to explain behavior over which people have only partial control, i.e., the ability to choose whether or not to engage in the activity in question (Ajzen, 1991).

The theory of planned behavior bases its addition of perceived behavioral control to the theory of reasoned action on the premise that people behave in line with their intentions and perception of control over their behaviors. According to the idea, perceptions of behavioral control, subjective norms, and attitudes toward the activity all function independently as drivers of intention. Three salient beliefs are thought to have an impact on the aforementioned determinants: behavioral beliefs, which are thought to affect attitudes toward behavior, normative beliefs, which serve as the underpinnings of subjective norms, and control beliefs, which serve as the foundation for the perception of behavioral control (Ajzen, 1991).



Source: Ajzen's Theory of Planned Behavior, 1991

### Attitude towards the Behavior

The attitude toward the behavior is the first factor in the theory of planned behavior that determines intention. It deals with a person's interpretation of the outcomes brought about by engaging in a particular conduct. It is calculated by evaluating how desirable the results of the specified conduct are. According to Fishbein & Ajzen (1975), attitudes logically grow out of people's beliefs about their conduct in relation to characteristics like the behavior's outcome or cost. The individual pre-values the characteristics that influence behavior, therefore an attitude toward the behavior is naturally established and may be pleasant or negative depending on the results of engaging in the specified behavior (Ajzen, 1991).

### Subjective Norms

The subjective norms, which refer to the approval or disapproval of significant referents such as family, friends, or role models, are the second predictor of intention in the theory of action. It is concerned with the peer pressure to act in a certain way or not. The degree to which a person is willing to conform to the judgments of the significant referents determines their level of readiness to engage in an action, which in turn produces their normative beliefs. The response provided by the respondent to the question addressing the approval or disapproval of significant individuals on the performance of a certain activity is frequently used to create an overall measure of subjective norms (Ajzen, 1991).

However, a person whose referents endorse the activity will have high subjective norms, which suggests that they will be more motivated to engage in the behavior. An individual, on the other hand, will have weak intention to engage in the action if their referents disapprove of it.

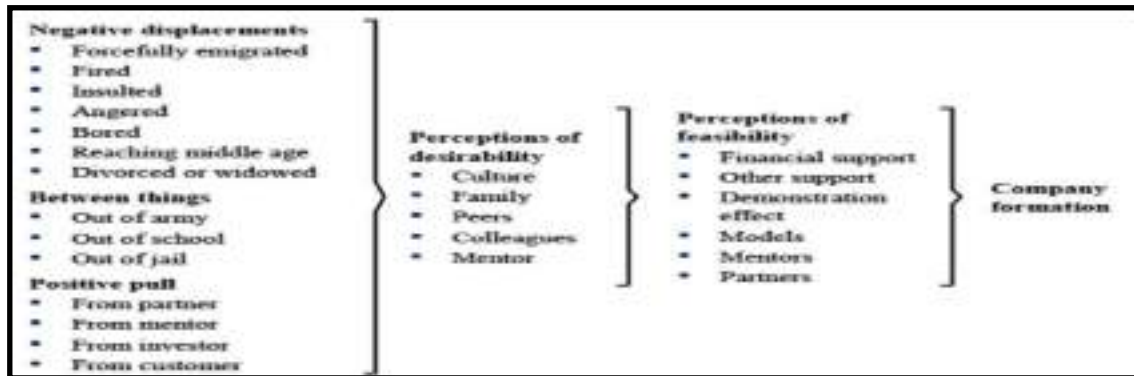
### Perceived Behavioral Control

The third antecedent of intention is perceived behavioral control, which relates to assessments of one's

capacity to carry out the courses of action necessary to handle upcoming circumstances. This antecedent is thought to reflect prior knowledge as well as anticipated possibilities and challenges. It depends on how much power an individual has over the variables that help or hinder the execution of an activity. When people think they have more possibilities and resources, or when they anticipate fewer obstacles, their perception of their behavioral control is higher (Ajzen, 1991).

### Entrepreneurial Event Model

The concept of entrepreneurial intention was created specifically for the purpose of examining people's intentions with regard to the field of entrepreneurship. It makes an effort to comprehend the venture formation process from a practical perspective as opposed to a functional perspective. In order to include both part-time and full-time entrepreneurs, Shapero and Sokol (1982) conceptualized the entrepreneurial career as an entrepreneurial event. This event is characterized by initiative taking, resource consolidation, management of the organization, relative autonomy, and risk taking. According to entrepreneurial event model, a new venture is created only when there is a displacement in the life of an individual, which can be either positive or negative. Taking entrepreneurship as a career choice requires powerful force or small continuous forces to consciously or unconsciously opt for a major change in life events. This displacement can be external or internal to the individual. Negative displacements tend to have more influence in creating a new venture as compare to positive displacement. Some of the externally imposed displacements are political or religious refugees, migrants, job displacement etc. and internal displacement occurs due to the passage of time without depending on any other factors. The outcome of this change in life event is affected by perception of desirability and perception of feasibility, which is implanted by cultural and social environment.



Source: Shapero & Sokol (1982)

### Perceived Desirability

In order to understand the concept of perceived desirability, Shapero conducted a study by collecting data from entrepreneur’s family, peer groups, ethnic groups, work experience, classmates, colleagues and mentors. According to the study, family, more specifically the father and the mother played the most important role in generating desirability for entrepreneurial career. Since mentors play the part of advising nascent entrepreneurs, they are respected and have powerful influence. Shapero concluded that in a society where starting business is considered prestigious, more individuals will choose to become entrepreneurs as compare to society with contrasting value. Perceived desirability refers to the extends to which to which a person desires to start his own business. It acts as a motivational factor and determines how much a person is willing to put effort in starting business

### Perceived Feasibility

Perceived feasibility refers to an individual’s confidence in his capacity in his capability to start a new business. It shows whether an individual considers starting a business as possible or not. Generally, more ventures are created when capital is available easily in a community, the availability of financial support plays an important role in the formation of a business. According to Shapero(1982), perceived feasibility and perceived durability are the two face of a coin; If a person considers starting a business as unfeasible, one may conclude it as undesirable too and if a person considers starting a business as undesirable, one may never considers it’s feasibility.

### Propensity to Act

Propensity to act refers the proneness of an individual to act on his decision whenever there is an opportunity to start a business. It is one of the key variable of entrepreneurial event model as it does not only have direct linked with entrepreneurial intention but also acts as the moderating variable between entrepreneurial intention and its factors. Shapero (1975) considered propensity to act before considering the perceived feasibility and perceived desirability in the entrepreneurial event model. In order to measure propensity to act shapero suggested using the scale of internal locus of control. An entrepreneur may have the intention to

start a business but without a propensity to act, the execution of the planned behavior would be very difficult.

### DISCUSSION

Like any other theories and models the theory of planned behavior has some conceptual issues even though intention is the best approach to study performance of a behavior, an individual with strong intention may not actually perform the behavior in the future, it does not considered the personality of the individual. The second variable in the theory of planned behavior i.e. social norms is less relevant when it comes to an individual who has high locus of control, this type of individual are not easily affected by the opinions of referents. The theory does not take into account the exogenous factors that influence behavior indirectly. The capacity of the theory to predict behavior differs depending on the situation and the concerned behavior, moreover perceive behavioral control becomes extremely effective only when there is less volitional control over behavior (Ajzen, 1991). Exogenous factors may include personality traits, demographic factors, education, gender etc. (Krueger et al. 1993). The theory considers normative influences but it had excluded the environmental, economic and political factors that influence an individual intention to perform a behavior to a great extent.

As mention in Ajzen (1991), theory of planned behavior is still open to the inclusion of additional predictors. In fact the theory itself is an expansion of the Theory of Reasoned Action. Therefore, over the past years many researchers have conducted studies using The Theory of Planned Behavior with additional variables in order to cover the original limitation and making it more integrated model to study behavior.

The entrepreneurial event model was developed specifically for the study of entrepreneurial intention but it does have conceptual setbacks. The incompleteness of the model is marked by its focus on the psych sociological perception of the individual. In order to have entrepreneurial intention, the theory assumes that an individual must face a displacement in life to take up entrepreneurship career, this displacement maybe in the form of negative or positive displacement, this assumption ignores the potential of the individual to start a new business. Even though the theory attempt to include situational, social and individual variables in the model through perceived feasibility, perceived





desirability and propensity to act, many researchers still argue that additional variables may increase the variance in the prediction of entrepreneurial intention, moreover the sufficiency of the model depends on the context and environment where it is applied.

## CONCLUSION

The purpose of this study was to provide a brief understanding of the two most cited theories of entrepreneurial intentions i.e. the theory of planned behavior and entrepreneurial event model, both the theories have their own limitations but these two theories provide a very effective instrument to understand the process of venture creation. The progressing interest in the entrepreneurship as a career choice necessitates the understanding of why an entrepreneur decides to start his own business. Intention based model can be a helpful tool since entrepreneurship is a planned behavior and understanding the antecedents of intention implicit understanding the behavior (Ajzen, 1991).

The quantity and quality of entrepreneurs maybe diagnosed but in order to improve the structure, the Government and the educators needs to know where to focus their effort, the application of intention based models in conducting studies have emerged as an important catalyst. These intention models will assist in estimating the future entrepreneurial scenario, which will in turn help in grasping the prospective employment generation capacity of the concerned economy. The theory of planned behavior may be applied in any study concerning a planned behavior whereas the entrepreneurial event model is specifically developed for the study of entrepreneurial intention. Although each theory has its own conceptual problems, it is clear from the literature review that each model can be altered to fit the needs of the study. Therefore, further research maybe conducted to validate the applicability of the modified models.

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## THE USE OF EXTERNAL AND INTERNAL MONOLOGUE IN THE PRESENTATION

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### ABSTRACT

*This article highlights the use of external and internal monologue in the presentation.*

**KEYWORDS:** *Abdulla Kadiri, feuilleton, works, external and internal monologue, literature.*

## ИСПОЛЬЗОВАНИЕ ВНЕШНЕГО И ВНУТРЕННЕГО МОНОЛОГА ПРИ ИЗЛОЖЕНИИ

**Турсунова Фариди Ганиевна, старший преподаватель  
Ферганский Политехнический Институт  
Узбекистан, Фергана**

**Аннотация:** В данной статье освещено использование внешнего и внутреннего монолога при изложении.

**Ключевые слова:** Абдулла Кадыри, фельетон, произведения, внешнего и внутреннего монолог, литература.

Абдулла Кадыри в своих сатирических произведениях и фельетонах при изложении событий очень часто обращается к внешнему монологу героев. Во внешней монологической речи персонаж вслух излагает собственную речь. В нашей работе, судя по тому, к кому или к чему обращен внешний монолог в сатирическом произведении, мы подразделили его на 3 вида и путём классификации проанализировали следующие примеры: 1. Речь, обращённая к большинству. 2. Речь, обращённая к отдельной личности. 3. Речь, обращённая к предмету.

Произведение начинается с внешнего монолога Калвака, обращённого к толпе, народу:

*“Эй боши бўш донолар, эй қовоқ кийган диндошлар, вой мусулмони комиллар!” // “Эй пустоголовые мудрецы, эй тыквоголовые единовверцы, мои истинные мусульмане!”* (. Стр.238)

Из этой горькой речи Махзума можно увидеть достойное сожаления состояние беспомощного муллы, переживающего за свой народ, но не способного его защитить. Из его слов о том, что *одежда стала короче, волосы длиннее; мужчины в облике женщин, женщины - в облике мужчин*, – виден его горький смех, злая ирония над людьми без чувства достоинства, которые будучи мусульманами, подражая Европе забывают свой менталитет, не тревожатся за свой народ, которые равнодушно взирают на девушек и женщин в свое время, ставшими носить короткие платья и короткую причёску, а также на юношей, отрастивших длинные волосы и играющих женские роли на театральной сцене.

Речь, обращённую к отдельной личности мы исследовали, выделив примеры речи тётушки Шарвон, обращённой к Бувхамфе, речь Тошпулата, обращённую к Махаму, речь Кахрамона,



обращённую к Мочалову, речь Тошпулата, обращённую к Жулкуну. Например, речь, обращённая к Маххаму: *Хабаринг йўқ ҳали, Маҳкам полвон, кеча исполқўмидаги ҳезимкашларнинг “канасирти”га боруб қолубман.... Санга ёлгон, худога чин, нуқул ҳез, нуқул толмача... Вой ўлай-қутулай дебман... Битта ҳезалак, олимпасумол ўзи, битта отинчага осилган бўладир... Вой шўрим қурсун, дедим. // Ты ещё не знаешь, Махкам-полвон, я вчера случайно забрёл на “канасирит” женоподобных парней из исполкома.... Ты не поверишь, но истинно перед богом, там только малодушие, только увливание ... Я подумал умереть бы, не видеть бы этого... Один женоподобный, сам фронт-франтом, привязался к скромной женщине... Я воскликнул: Позор! Глаза мои не видели бы этого!* (Стр. 326)

Тошпулат возмущается недоброкачеством концертов, организуемых исполкомом, жалеет о бесполезно потраченных деньгах зрителей. Он смеётся над мужчинами, исполняющими на сцене женские роли, над юношами, пристающими к “женщинам”. Даже если его выражения *вой ўлай-қутулай, вой шўрим қурсун // умереть бы, не видеть бы этого...*, *глаза мои не видели бы этого* свойственны речи женщин, вызывают лёгкий смех и представляют собой горький намёк, что в действительности они отражают злую иронию над танцовщиками того времени. В этом фрагменте с сожалением отображается возмущение героя, расплывшимися в обществе женоподобными мужчинами и мужеложством. В данном фрагменте писатель равнодушен к подобным порокам в обществе, он раскрывает указанные изъяны, посредством речи героя, возмущённого случаями, отрицательно влияющими на моральный облик народа.

**Речь, обращённая к Мочалову.** Обратимся к фрагменту, взятому из шутильной интермедии “Помрешь со смеху ...”: *“Отингдан айланай, Мочалов... Исми шарифингни эшитсам, бутун борлигимга сирқироқ кирадир, Мочалов!..”*. //

*“Милый мой, Мочалов... Как услышу твоё имя, я весь дрожу и ною, Мочалов!..”* ( Стр. 153).

Писатель высмеивает садистов-руководителей вроде Мочалова, проявлявших злобное недовольство над всем народом и получающими от этого удовольствие; от этих слов, высказанных с намёком злой иронии, автор словно испытывает тревогу за героя, впавшего в уныние - перед нашими глазами возникают трагические события и чёрные дни 30-х годов. Герой посредством злого смеха изображает своё возмущение над чиновниками вроде Мочалова, которых мельница жизни заставила лететь кувырком. При анализе примеров, сравнивая речь персонажей, мы выявили своеобразие монологической речи героев из вышеприведенных весёлых рассказов “Шарвон хола нима дейди?”, “Тошпўлат тажанг нима дейди?” // “О чём говорит тётушка Шарвон?”, “ О чём говорит Тошпулат вспльчивый?”.

**Речь, обращённая к предмету.** В весёлых рассказах писателя можно встретить ситуации, в которых монолог героя обращён не только к личности, но также и к предмету. Например, в шутильном рассказе, начинающимся словами *“Гўшит...Отингдан ўргулай, ўргулай гўшит!.. Нега мунча ўзингни биздан азиз тутдинг? Биз сенинг кадрингга етмадикми?... // “Мясо...Милое моё, миленькое мясо!. Почему же ты всегда обходишь нас стороной? Или мы недостойны тебя?..”*, посредством речи персонажа описывается печальное душевное состояние людей, чья бедность даже в месяц Рамазан не позволяет им готовить блюда с мясом. Здесь в очень шутильно-смехотворном и грустном тоне повествуется об ограниченной возможности семьи, зависящей от весьма скудной государственной системы распределения мяса, при которой мясная пища стала недостижимой мечтой.

В зависимости от того, какие события отражены в монологической речи, выразительность проявляется в различных видах. Поскольку в сатире Кадыри речь идёт о характере выражения, то его можно классифицировать по смыслу выражения приводимого в нём монолога следующим образом:



В этом параграфе мы уделили внимание также внутреннему монологу, использованному в сатире. Абдулла Кадыри весьма уместно пользовался методом отображения при помощи монолога в раскрытии внутреннего мира героев, а также при описывании сюжета, композиции и действительности. Например, "...ҳалиги бадбахтнинг озгидан "Ассалому алайкум" чиқиб қолмасунми? – бошда "Мазақ қилдиёв бу кофир!", – деб ўйладимда, менга қараб келаятгани учун "кофирнинг саломига алик жойизми, йўқми?" деган шубҳада қолдим". // "... я подумал « а если не дай бог из уст того безбожника прозвучит «Здравствуйте»? – "Ох и посмеётся же надо мной этот безбожник!", - сначала пришло мне в голову, и поэтому увидев, что он идёт навстречу мне, я засомневался, "а следует ли отвечать на приветствие безбожника?" (Стр. 349).

Отсюда видно, что беспокойные думы и мысли, бродившие в голове Калвака, выражены автором посредством характерных для него слов. Во внутреннем монологе героя нашли свое отображение несколько достоинств и изъянов, свойственных характеру Калвака. Вместе с нищетой его духовного мировоззрения, раскрывается запрет, наложенный на нашу веру. Или обратим внимание на следующий фрагмент, приведенный из сатирического рассказа "Из воспоминаний Калвак махзума": "...Ҳа, энди ўзимиздан ҳам булохтир, десатнай, анжирнай, сакратар ва кофиралилар етушуб қолди-да, деб ўйласам ҳам, кўнглимга: "Она тилини маҳкамаларда

ишлатиш жойизмикин, йўқмикин", – деган шубҳа келди. // "...Даже если я и думаю, что теперь и из нас самих выходят булохтера, десатнай, анжирнай, сакратар и кофирные, мне все же приходит в голову сомнение: "А стоит или не стоит использовать родной язык в конторах?" (Стр.241).

Как известно, во времена бывшего союза наш язык подвергался дискриминации, говорить на родном языке в государственных учреждениях и даже произносить свое имя на узбекском языке считалось бескультурием. Из приведённого фрагмента, являющегося внутренним монологом персонажа, видно, что он оказывается в смешном положении, неправильно произнося слова бухгалтер, инженер, секретарь, с другой стороны, он переживает за молодых людей, работающих в государственных учреждениях и оказавшихся в крайне тяжёлой ситуации невозможности говорить на родном языке, но в конце-концов он боязливо приходит к выводу, что оказывается можно и нужно говорить на родном языке.

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*Faridahon Ganievna. The place of letters in Abdulla Qodiriy's comics.*

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# THE PROBLEM OF TEACHING ENGLISH IN ESP CLASSES

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## ANNOTATION

*The article is devoted to the problem of lexical interference in teaching translation to linguistic students. With the development of the translation training, the interest in identifying and preventing problems associated with translation has also increased. Nowadays, a comprehensive consideration of these problems is traditional in courses of theory and practice of various types of translation. Since no one is immune from translation errors caused by interference, i.e. the influence of the first language system on the second one, there was a need to study this phenomenon when teaching professional translation in more detail.*

**KEY WORDS:** *Interference; linguistic interference; assimilation; lexical interference; linguistic influence; translation.*

In the 19th century, scholars came to the conclusion that languages influence each other. At that time, language monitoring was carried out in the United Kingdom, France, Russia, the United States and other countries. The term "interference" (lot. inter - "meanwhile, mutual" and ferentis - "carrier") was borrowed from psychology by linguistics (psychology took it from physics) and was first used by scientists of the Prague School. [8] The confusion of languages is manifested in the fact that each language assimilates certain elements inherent in the second language, and thus individual parts of the language are less distinct. [9]

In the next definition, various aspects of linguistic interference are considered: interference is the interaction of language systems in the context of bilingualism, which develops either during linguistic communication, or in the process of individual assimilation of a language that is not characteristic of the native language; expressed in the deviation from the norm and system of the second language. [10]

Interference, which usually occurs in the process of learning a new language, is further developed if the two languages are typologically related. [11] The problem of lexical intervention is important for linguistic students studying German or French in addition to English. In the process of mastering a foreign language, the semantic affinity between the two languages can "facilitate the process of mastering a foreign language, since many words have a similar meaning". [7]

In other words, the opinion of scientists who support this point of view is that if words have a common origin, they will be much easier to learn, and this will help develop language skills and improve vocabulary. [12] Many scholars believe that the level of lexical translation depends on the connection between the two languages. At the same time, the

proximity between the two languages is a major factor in the intensity of linguistic influence, allowing the Predicting of possible errors and the use of various methods and techniques when teaching students to translate. [15]

Moreover, learning a foreign language can also "affect the native language (or primary language system), and perhaps rebuild a person's cognitive abilities" Another important aspect of second language acquisition is the weight of the context: background knowledge "becomes an important factor affecting semantic construction, since the newly processed information must correspond to the information we said earlier". [16] The subject's communication experience is a major factor influencing the outcome of the assignment. [6]

At the lexical level, interference is an intervention of the mother tongue dictionary into the language dictionary being studied due to the similarity of the lexical units of the two languages. [13] This is reflected in terms of content and expression. The phonetic closeness of words leads to an involuntary violation of the target language norm when using the word of the target language. [17] In this case, students are often faced with the problem of "fake friends of the interpreter". [5] S. Saidaliyev points out, due to negative interference, the lexical similarity of different languages can not only lead to mistranslation, but also prevent the acquisition of a second language [18] in general. For the manifestation of interference, objective conditions created by the peculiarities of the language are necessary: the presence in it of differential characteristics that can be placed in opposition in one language or in contact with the mother tongue, that is, the presence of a language inside and a language. inter-linguistic contradictions. [19]



Anyone who has learned two or more languages is not immune from translation errors caused by the influence or interference of the first language system with the second. [4] This assumes a more detailed study of the phenomenon in the linguistic-methodological aspect. Analyzing and identifying certain patterns associated with this problem can help prevent interference errors and optimize the teaching process of a foreign language and translation. [20] We had previously formulated the following tasks: to describe the phenomenon of interference as a problem in teaching translation; to consider lexical interference as one of the types of linguistic interference; [21]

**Research Method:** to generalize existing knowledge, the analysis of the literature helped to develop a methodology for conducting [3] our own experiment, the purpose of which is to analyze the results obtained. 60 respondents took part in this experiment. [22] They are directly related to the study of foreign languages in an artificial environment and have not only theoretical knowledge, but also practical experience in translation. For the purity of the experience, we gave them little time to translate some sentences without the use of AIDS.[23]

1. For the second stage of the experiment, we gave the students English sentences for translation: His delegation believed that they had such special expertise.[24]
2. He was a genial and kind man.
3. You need someone to lift your morale.
4. The U.S. Army adopted a new ammunition.
5. Apologies should, however, be followed by rehabilitation.

**Results:** The results of the first stage after the first stage of the experiment, we achieved the following results.

In the first sentence, sympathy (46%) and the phrase he liked (23%) were very frequent changes for translation. This result suggests that 46% of readers were influenced by false friend and misidentified the word. 23% of students were unsure of the correctness of choosing an equivalent to avoid error, and used a synonym translation, slightly changing the sentence. In this case, a suitable word for translation - the word "affection" - is found in only 3% of the answers. [2] The rest show different variants of the translation: "liked her", "a great affection", "sympathy", "great attack", "very nice for her", "was about to fall in love", "feeling", "felt in love".[25]

All this proves the existence of cross-language lexical intervention or the negative impact of [1] one language on another in teaching translation, which is manifested when the ambiguous meaning of a word is transmitted when translating words from the native language to a foreign language. In general, interference is an inevitable phenomenon for all foreign language learners, including translators. [26] Nevertheless, the topic published in this article requires additional research to teach foreign languages and carefully develop the technique of eliminating lexical interference in translation.[27]

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# PRINCIPLES OF COHEERENT SPEECH AND ITS PRACTICAL REFLECTIONS

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## ANNOTATION

*In this article dedicated principles of coherent speech and its practical reflections. Students in technical institutions who are studying for their bachelor's degree are usually with different academic backgrounds and mixed ability students in terms of language skills. In order to satisfy the needs of modern language learners we teachers have to be very inquisitive, resourceful and well aware of modern trends in language teaching. As it is known for many years Grammar translation method dominated in our ELT context which means teaching focuses were mainly linguistic awareness and competence of learners through teacher centered pedagogy. Being far away from criticism of traditional methods of language teaching I realized the urgent need for transferring to modern ways of teaching according to the educational context and its specifications.*

**KEY WORDS:** *coherent speech, principles, reflections, developing, technical, ESP classes, mixed level.*

My target is reading comprehension skills and in particular the effect of the limiting pre-reading activities on students reading comprehension in this graduation paper, because I teach at university modules called "Coherent speech" which I chose as a target to analyze during my project work tasks. [1] I teach this university course to second year students and have gained so far certain achievements and as well as faced some challenges. While participating this teachers' professional development course even though it is online mode I started to realize the reasons and influential factors which my achievements and challenges rooted from. [2] The positive sides of my activity as a language teacher have been that I could create a "safe zone" for my learners to communicate and promoted their interaction and integration of language skills throughout the procedure while the negatives were related to preparing my learners for successful communication in the target language when in the real situation. I used to focus on teaching planned amount of reading and pre-reading activities with the help of examples definitions even in context, however, I realized now, that competences shouldn't be or cannot be developed in isolation or by segregated way, vice versa language is also social event which should be taught in relation with real world situations and conditions. As a target lesson for my project work I have chosen one class when I taught students reading skills and strategies that can help them read efficiently while reading intensively. [3] As I mentioned above during the lesson I made a great effort to make the process as communicative and student centered as possible and develop my learner reading skills where I had some challenges to teach appropriate tips which can be useful in Uzbek cultural context and interlink into my objectives pragmatic and sociolinguistic competences. [4]

Regarding to the notion of linguistic competence I have clear understanding namely linguistic competence is the knowledge or ability to understand particular language's grammar, vocabulary, phonetics, semantic and stylistic features. Linguistic competence – is knowing how to use the grammar, syntax and vocabulary of a language. [5]

When it comes to the definition of the word competence, it is the state of being adequately qualified to do something well. Competence is what you know. And when we refer competence with a language that means to be able to understand the structure of it and qualified enough to apply it in practice and be able to analyze its linguistic construction. As I mentioned in my previous task until this period of language teaching linguistic competence has had priority over other communication competences, learners were taught with much effort of the teacher just without interlinking their language skills with social context or pragmatic needs of a target language to be taught. [6]

The target lesson of mine could be enriched best with focusing on the effect of the limiting pre-reading activities on students reading comprehension and while-reading activities by exposing learners to work on the words and phrases as parts of speech and learning their functions from the perspective of syntax such as what specific words they are learning are nouns, verbs, adjectives, adverbs applying proper pre, while and post reading strategies such as scanning, skimming, reading for detail, reading between lines and contextual guessing. Another linguistic input could be through identifying synonyms, antonyms and homonyms of the chosen words and phrases for the lesson. [7] According to the poster presentations that students worked on teaching modal verbs or positive and negative imperative sentences can be applied to



highlight the linguistic focus of the lesson. Investigating vocabulary from the point of linguistic awareness has had a priority for a long time, now realizing the urgent need for integrating linguistic awareness into communication competences which is the achievement of ELT system of our community. [7]

It is not exaggeration to say that this teacher development course served as golden opportunity for me to extract deeper meaning of the communication competences, their role in language teaching, effectiveness and successful integration with other language skills, specifically pragmatic competence has been a new dimension in my experience here in teacher development course. From my personal understanding, pragmatic competence mainly focuses on the meaning of words within different contexts since many words can come with literary or figurative meanings, or develop different contexts. [8]

Concerning the matter of implementation of pragmatic competence into Reading and writing classes, I can say from my experience that this approach helped me and my students to interact and working out the proper meanings while reading, communicate with others with a clear view of the meanings in social, real-life situations. In linguistics, *pragmatic competence* is the ability to use language effectively in a contextually appropriate situation. [9] Pragmatic competence is a fundamental aspect of a more general communicative competence which is understood as the knowledge of the linguistic resources available in a given language for realizing particular illocutions, knowledge of the sequential aspects of speech acts, and finally, knowledge of the appropriate contextual use of the particular language's linguistic resources. [10] For the reason that I am a language teacher and really enthusiastic about preparing my learner for successful communication in the real setting and feel responsible before my students for getting them ready to be interpreted appropriately and be able to interpret others appropriately, avoiding any misunderstandings and cultural clash with the help of my instruction. I never intend my learners to appear impolite, uncaring or unfriendly, so pragmatic instruction has to become an integral part of the lessons in all educational establishments. In the classroom I want my students to learn how to interpret language in the same way they have learnt to render the rules of their mother tongue. [11]

In terms of pragmatic focus into my reading lesson I considered to add some activities focusing on extracting deeper and appropriate meanings of the words and chunks according to context. [12]

As the name of the competence suggests its meaning one can work out the definition for the concept of sociolinguistic competence which means to understand cultural and traditional variables. As I figured out the notion in the way of my thinking sociolinguistic competence is the process when the speaker's utterance is understandable for the hearers. [13] Culture and attitude may impact on hearers' acquisition. For example, the same phrase can be interpreted differently. Not all of teachers are able to connect culture with language. In Uzbek culture the power is in assessments, source of knowledge is a teacher, the distance between student and teacher is high. In European culture the power is in criteria's,

the teacher is a guide, and the distance between teacher and student is low. Because of sociolinguistic competence it is normal that not all the words have the same meaning within cultures, or represent different meanings and notions in various situations. Based on my speaking classes, I would apply sociolinguistic competence by getting my students to read or listen to jokes on target language, do storytelling. So that they recognize sociocultural words differentiate between experiences and practices. [14] I choose words that will help my students to develop their skills, ability to recognize different words with different meaning in different culture. That's why we should teach students that the speaker has to pay attention to the context while making some speech, whether his speech is understandable for the listener (if the listener has another culture and traditions). [15]

Concerning the matter of sociolinguistic input in order to enrich my lesson plan and broaden the focus I would expose my learners to investigate reading strategies in order to raise their effectiveness in reading comprehension competence, develop useful tips for efficient reading habits in Uzbek culture and in European culture later to discuss the specifications, similarities and differences to be successful readers in two contexts. [16]

From my personal perspective I would define the notion of strategic competence as the knowledge how to use the language to communicate in order to deliver intended meaning. Communicative competence has key components which are grammatical, pragmatic, socio-linguistic and strategic competence. Students can improve their competence in each of these areas at various rates, but all of them are important in improving communicative competence. [17] Communicative activities should address both the learners' overall skills in successfully conveying information and their ability to use communication strategies when the process of conveying information meets a problem. [18] Teachers can encourage students to use these strategies by providing both opportunities for practice and actual instruction in their use. Instructions can be direct or indirect and should be based on classroom activities. When we teach English we come across with some problems. Any person who is not a native speaker or a true bilingual must rely on some incomplete and imperfect competence. [19] As for teaching effective reading strategies to develop, reading comprehension can be a segregated skills to develop, vice versa it should be in integrated way with other language skills and aspects, students might be limited to identify dictionary meaning of the delivered words and phrases of the lesson. Learner may confuse to choose the appropriate contextual strategy to convey the meaning in both oral and written speeches. In this case using authentic materials and their usage in the classes can be a useful tip in order to form students' strategic competence. [20]

We said that strategic competence is the ability to cope with unexpected problems when no readymade solutions are available. If we meet a problem, we have two basic choices to solve i.e. can avoid the problem by adopting a reduction strategy. On the other hand, we solve it by achievement strategy. We take the risk and expand our communicative resources. [21]



I would like to outline my gained understanding and realization of all notions and statements regarding teaching, with the help of new experiences pursued through this online professional development course and existing foundation knowledge that new ones build upon makes me a teacher I am now. [22] My own language teaching statement mainly comprise of principles such as meaningful learning, communicative competence and intrinsic motivation. [23]

My teaching philosophy is mostly based these three major values, because I think, I need these three objectives most during the lessons in order to achieve my students' proficiency and fluency in speaking classes, to develop comprehension competence by applying appropriate reading activities and strategies. [24] I will describe these three principles below and explain my own way of teaching considerably more broadly. [25]

For me, the purpose of teaching is to give the meaning (rather than description or definition). So, students should grasp the meaning, purpose and intention of what they are studying so as to be successful at it. [26] I've seen that in many cases, traditional principle that is based on learning by memorization did not provide better results and academic performance since students don't usually get the meaning in depth and easily forget words related to the topic which they learnt by heart, if don't revise it from time to time. Meaningful teaching, on the contrary, helps to deal with these drawbacks. [27]

**Communicative Competence.** I am at developing their competence on communication by exposing them to a more speaking environment, asking them to be engaged with more authentic resources. [28] Also, I give them different speech exercises taken from real telephone conversation tasks (authentic material) to develop their response and reaction. In that way, I also help them to deal with difficulties when they lack knowledge by using communicative teaching techniques and strategies. In brief communication competence is the ability to use the language with other people in a real spoken environment. [29]

One thing should be mentioned, is that we cannot teach someone who does not feel that they really need it or teach them completely against their will as on obligation. [30]

We should understand that we can make the best of it, when we are able to keep our students in interest, when we can develop something like "inner energy" within themselves to enhance language skills and competences. [31]

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# TO REVIEW THE DESCRIPTION IN THE SOURCES OF THE HISTORICAL AND GEOGRAPHICAL STATE OF UZGEN AT THE BEGINNING OF THE XX CENTURY

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## ANNOTATION

*The article highlights the historical and geographical position of the city of Uzgen in the Republic of Kyrgyzstan in various sources.*

**KEYWORDS:** *Uzgen, geography, Turkomstaris, minaret, sultan Egilmoziy, Malikshakh, Sotuk Bugrakhan, Sultan Sanjar*

## К ОБЗОРУ ОПИСАНИЯ В ИСТОЧНИКАХ ИСТОРИКО-ГЕОГРАФИЧЕСКОГО СОСТОЯНИЯ УЗГЕНА В НАЧАЛЕ XX ВЕКА

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## Аннотация

В статье освещается историко-географическое положение города Узген Республики Кыргызстан в различных источниках.

**Ключевые слова:** Узген, география, Турккомстарис, минарет, султан Эгилмозий, Маликшах, Сотук Буграхан, Султан Санджар

После обретения независимости Узбекистан сделал первый шаг к объективному взгляду на свою историю с новой точки зрения. Историки разумно использовали этот шаг, сделали объективный научный анализ материального и духовного наследия наших предков и открыли широкие возможности для изучения памятников древности наших предков.

Принимая это во внимание мы учли обоснованным процитировать следующие высказывание нашего первого президента И. А. Каримова: "Конечно, духовность любого народа или нации невозможно представить без его истории, уникальных обычаев и традиций, жизненных ценностей. В этом отношении, естественно, духовное наследие, культурное богатство, древние исторические

памятники являются одними из важнейших факторов"[1. – Б. 29–30.].

Хорошо известно, что в советское время существовало заблуждение, что каждая местная культура была отсталой, а принятая со стороны развитой. В 1920-1930-е годы политически некорректные лозунги, такие как "Национальный по форме, социалистический по содержанию" и постановление государства от 1956 года "Об устранении излишеств в проектировании и строительстве", были нацелены на объединение творческой деятельности и строительства в один общий шаблон[2. – Б. 3.].

1920-е годы были особым этапом в изучении истории материальной культуры Узбекистана. Особое место в этом отношении занимал Комитет по



искусству и природе, охране древностей и музейному делу («Туркомстарис»), созданный в 1921 году при Туркестанском народном комиссариате просвещения.

После национального размежевания государства в 1925 году эта организация была переименована в Средазкомстарис (для региона Средней Азии) и действовала до 1928 года. Благодаря усилиям этой организации был проведен ряд работ по сохранению материальных и культурных памятников Средней Азии, изучению их истории, организации музейной работы. В работе по выявлению и реставрации памятников истории и культуры прослеживалась активная деятельность не только российских ученых, но и национальной интеллигенции. Потому что они правильно поняли, что историческое прошлое народа передается следующему поколению через его материальные и духовные памятники. Патриоты своего народа, входившие в состав организованных организацией научных экспедиций, проделали большую работу по изучению истории строительства и состояния существующих исторических памятников в стране. Свои наблюдения они опубликовали в статьях в виде отчетов. В этой связи следует отметить службу национальной прессы. Потому что они стали трибуной для обращения к народу среди интеллектуалов, которые защищали интересы нации и работали на развитие общества. В частности, особое место в периодической печати занимает журнал «Просвещение и учитель», издаваемый Наркоматом просвещения, с его авторитетными статьями не только о народном образовании, но и о развитии культуры и духовности Туркестана. На странице журнала виднейшие национальные интеллектуалы того периода М. Абдурашидхонов, Ш. Рахими, Фитрат, М. Саиджанов, Чолпон, Боту, Г. Зафари и другие в своих статьях подняли проблемы сохранения и защиты истории народа, материального и культурного наследия как актуальные проблемы своего времени, анализ которых сегодня является одной из важнейших задач.

Например, в научной статье «Город Бухара и его старые постройки» известного прогрессиста М. Саиджанова рассматриваются древние памятники Бухары, в основном исторические места Бухары, такие как Арк, Шахристан, Регистан, а также постройки периода Аштарханидов и периода Саманидов М. Саиджанов в этой статье дает ценную информацию об изучении средневековой топографии Бухары, истории некоторых памятников города. В этой связи стоит отметить статью Шокирджона Рахими «Исследование

исторических произведений в Узгене»[3. № 1. 113 - 114]. Под историческими произведениями автор имел в виду не только рукописи, но и памятники архитектуры. В ней были затронуты вопросы состояния материального и духовного наследия края, необходимость их изучения. Эта статья была опубликована в журнале «Просвещение и учитель», дополнена фотографиями.

В работе, написанной в виде отчёта, основное внимание уделяется историко-географическому положению Узгена, столицы во времена Караханидов, построенным здесь зданиям, особенно башне XI-XII веков до монгольского нашествия, и небольшим гробницам вокруг нее (в статье они представлены под названием "турба" - М.М.), источникам по истории прошлого, сведения о документах, которые имеют научную ценность даже для современных исследователей.

### Ш. Рахимий

#### Исследование исторических произведений в Узгене Вступление

По заданию Туркестанского комитета по сохранению исторических памятников (Турккомстарис) комиссия из четырех человек 17 сентября этого года (1925) выехала из Хоканда и 19 сентября посетила Узген. Перед нами была поставлена задача изучить старинные ценные произведения времен древних монголов (Чингисхана) в Узгене.

Мы пробыли в Узгене 4-5 дней, собрали дополнительную информацию, сделали необходимые снимки и уехали, избрав там постоянную комиссию.

Мы предоставляем следующую информацию, чтобы познакомить читателей журнала с тем, что мы видели в Узгене..

Профессор Д. Еникеев - представитель Ассоциации восточных искусств в Москве, З. Осипкин - заместитель председателя Самаркандской комиссии по сохранению памятников древности, и мы, четверо, с еще одним инженером.

#### Географическое положение

Хотя Узген известен как великий город в Средней Азии и центр Ферганской области, сейчас он известен как село в Ошском районе. Узген расположен к северу от Оша, между Ошем и Джалал-Абадом, и является очень важным селом на торговом пути между Туркестаном и провинцией Кашгар в Китае. Хотя другой маршрут находится в 25 км от станции Хан-Абад на Джалал-Абадской железной дороге и в 45 км от Оша на повозке, путь очень труден, первый



маршрут проходит через Кара-Дарью, верховье Сырдарьи, второй маршрут проходит через несколько перевалов, называемыми 33 холмами.

В Узгене 25 махаллей с населением 7-8 тысяч человек. Это узбеки и кашгарцы, и есть люди, турки, близкие к узбекам, (говорят, что они приехали в эту страну из Туркменистана 6-7 веков назад, а потом остались здесь, суффикс "мен" отпал из их названия и стали они турками). В селе есть школа для девочек, 2 школы для мальчиков (шураи), клуб, одна школа грамотности, один врач, 2 кооперативных магазина, несколькими тоговых магазинов и караван. Воздух выше Оша, очень чистый и приятный.

### Исторические произведения

Узген чрезвычайно богат историческими объектами, зданиями, которые сейчас находятся в нем, сооружениями и старыми монетами, которые время от времени находили под землей, всё это указывают на то, что он, несомненно, был землей с развитой культурой в прошлом. Среди исторических зданий в Узгене сейчас есть большая башня и хорошо спроектированная усыпальница с тремя гробницами. Знаменитый путешественник Нушираван в своём дневнике путешествий пишет: «Шейх не потрудился отдать эту книгу 3 дня назад».

За последние 32 года здесь были найдены 27 хаммамов, множество монет и других инструментов. Узгенцы называют эти монеты «попок чака». Еще они берут из под земли много кирпичей и используют их в строительстве.

### Великий минарет

Самая известная из старинных произведений в Узгене - большой минарет, с длиной более 25 аршин. Этот минарет в настоящее время не связан с мечетью или молельным домом, вокруг пусто, одна сторона большая улица. С одной стороны его есть рынок пшеницы и он один возвышается над всем вокруг. Выглядит восхитительно и завораживающе.

Хотя неясно, когда была построена башня, она представляет собой по форме старые минареты, украшенные узбекской росписью, до прихода монголов из Исфахана и Мерва, и считается, что она была построена 7-8 сотен лет назад.

До прошлого года минарет сохранялся в прежнем виде и оставался неизменным. 43 года назад сделали в нем окошечко. Из рисунка видно, что верх минарета был стёрт, низ рассыпался, а некоторые части были разрушены. Но в прошлом году (в 1923 году), за шесть месяцев с мая, человек по имени Гойиб Обид Расул

оглы отремонтировал минарет (лучше бы он оставил её как есть). Обрушившуюся землю под минаретом он отремонтировал из русского кирпича. Он поставил на него купол с 8 окошками, но оставил его незавершённым.

Хотя минарет не утратил былой изысканности и истории, его ремонт остаётся нескладным. Даже после землетрясения 6 июня этого года купол минарета потрескался в 2-3 местах. О минарете была получена следующая интересная информация: 1. Будучи невежественными и не зная о том, что надо сохранить памятник древности, люди таили обиду на минарет. Они сломали лестницу первого этажа башни, откопали основание и забрали кирпичи, говоря, что если мужчина вылезет на минарет и сверху он оглянется, то увидит их дома и их жен. 2. Во время ремонта 1923 года, когда были проведены раскопки для определения дна, под землей, с четырех сторон минарета, для его подпорки были построены кирпичные столбы длиной в 10 сажень и толщиной в один аршин.

### Гробницы

По пути к югу от Большого минарета находится медресе, построенное около ста лет назад. Узгенцы называют его «Кладбище Хазрата Султана». Там, где находится кладбище Хазрата Султана, есть три соединенные между собой гробницы, обращенные спиной на восток. Гробницы тянулись с юга на север. Одна из гробниц (на юге) - гробница Султана Илига Мозий, другая (на севере) - статуя-памятник Санджара бин Маликшаха, средняя неизвестна. Внутри каждой из трех гробниц есть похожие друг на друга могилы. Однако ни у одной из них нет надгробия. Что касается могил, то северная и южная могилы очень украшены, а средняя - последняя, соединяет две гробницы. Гробницы удивительно художественно украшены и можно часами любоваться мастерством создателей. По словам профессора, который был с нами, этого мастерства не существовало на всем Востоке, кроме могилы знаменитого Исмаила Сомони в Бухаре.

Вся конструкция здания построена из кирпича, керамики и камня, и хотя оно было построено несколько сотен лет назад, верхушки были полностью разрушены. Но узоры, нижняя сторона которых все еще сплошная, состоят из надписей, некоторые из которых имеют разную форму, а некоторые из них представляют собой элегантные формы и линии, нарисованные в соответствии с последним (модным) стилем архитектуры восточного стиля. Мы разделили



узоры и надписи на экстерьере этих зданий на 14 частей и взяли образцы из каждой.

### Южная гробница

Известная по сей день как «Гробницы Султана» или «Султан Элигмозий», судя по надписям вокруг нее, известно, была построена в 582 г. Хиджры (1186–1187 гг. н.э.).

Это вид на здание. Хорошие порталные колонны, если смотреть с каждой стороны востока, вид украшен арками с обеих сторон, арки с обеих сторон изношены, а верх полностью исчез: есть также ряд надписей, некоторые из которых были снесены, с изгибом внутри арки, заканчивающимся справа и слева. Рядом с этими надписями разделенная кирпичом строка, от которой расположены надписи в другой форме (которые не удалось прочесть автору статьи) и столбцы из кирпичных складок с двух сторон. На одной из верхних сторон узорчатых стен, которые расположены напротив друг друга с трех сторон, ясно и красиво начертаны слова «вперед свет ...» на отдельной 2-й стене «Олдина сол фиджол хатлаа». Дверь гробницы - это простая дверца из ореха или шифера. Внутри здания из одной могилы растет сосна. Внутри загнута к куполу.

### Северная гробница

Эта гробница немного новее южной гробницы, и на ней больше узоров и орнаментов. В народе это здание называют гробницей султана Санджара. По форме это здание похоже на другое: две арки с исчезнувшим верхом с обеих сторон, вписанные узоры из маленьких кирпичей и глины внутри крыльца, а затем каменная колонна с кирпичным узором с обеих сторон (В правой части колонки есть слово «Маликшо», сделанное из керамики, которое здесь не имеет никакого отношения к этому месту). Вверху колонны непонятные надписи в виде дуги, а вверху надписей в виде дуги - глазок из голубой керамики (такой керамики сейчас не существует). В верхней части крыши также написаны слова с заголовочным арабским. Большое внимание было уделено чтению фразы «Алгиркор ...» в заголовке. Затем, что касается интерьера здания, над дверью было написано сура «Оятул-курси» в виде пояса со смесью письменных стилей сулсий и шаджарий. Дверь этого здания, даже сама обычная дверь, новее южной гробницы, и, судя по внутреннему куполу, она могла быть сломана, в ней все еще оставалось с поларшина. Когда дело доходит до того, кто находится внутри здания, это понимается как построенная в память знаменитого султана

Санджара. Здание также названо в честь султана Санджара. Ясно видно слово «Маликшах» внутри колонны на изображении здания, когда-то было слово «Санджар бин Маликшах», от которого осталось только это здание. Дверь этого здания такая же простая, как и предыдущая.

### Средняя гробница

В нем не так уж много орнаментов. На открытом пространстве между северной и южной гробницами было построено здание, причем обе гробницы были закопаны вместе. Купол его полностью сломан. Внутри растут два дерева. На вопрос "Чья это могила?" знающие люди отвечают "Отца его величества султана". Больше никакой информации.

Вид из этого среднего здания не такой изящный. По необработанному кирпичу в разрушенных местах также известно, что они были отремонтированы попечителями.

### Результат

Из этих проверок мы делаем следующий вывод, основанный на доказательствах, которые все еще доступны в книгах, находящихся в нашем распоряжении.

- До прихода Чингисхана было очень светлое время для Узгена. Когда-то Узген был центром не только Ферганы, но и даже всего Мавераннахра (земля между Сырдарьей и Амударьей).

- Южная гробница - могила Элликхана бин Али, брата известного кашгарского хана Сотука Буграхана, родившегося в 383 году Хиджры и умершего в 403 году Хиджры. Хотя в некоторых историях говорится, что Элликхан умер в Самарканде, неудивительно, что его тело было доставлено сюда. В Самарканде нет могилы султана Элика.

Северная гробница - не что иное, как «памятник» султану Санджару бин Малик Шаху, одному из знаменитых саманидских ханов. Об этом открыто заявляет известный историк Бартольд в своей книге «История Туркестана». Второе доказательство - настоящая гробница султана Санджара Мозий находится в Марве.

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# A PROMISING NEW APPROACH TO FINANCIAL INCLUSION THROUGH PAYMENTS BANKS IN INDIA

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## ABSTRACT

*Among the various financial inclusion initiatives introduced by the government and the RBI over the years, Payment banks (PBs) were introduced by the RBI in 2014 to further the motive of financial inclusion in the unbanked areas across the country targeting the poor households, small businesses and migrant workers. The study is of descriptive nature and is analyzed using tables and charts. The paper discusses the importance of PBs in financial inclusion by comparing with the commercial banks and PPIs, and highlighted their contributions in financial inclusion. The paper also analyzed the achievements of PBs in the cashless revolution by comparing with other entities providing the same type of services.*

**KEYWORDS:** Banking Services, Customers, Financial Inclusion, Online Transactions & Unbanked areas

## 1. INTRODUCTION

The government of India and the Reserve Bank of India (RBI) had introduced many initiatives in the recent years to promote financial inclusion in the country. Financial Inclusion has been defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost (RBI, 2008). (Sarma, 2008) defined Financial Inclusion as a process that ensures the ease of access, availability and usage of the formal financial system for all members of an economy. (Aggarwal & Klapper, 2013) defined Financial Inclusion as the ownership and use of a checking or savings account at a formal financial institution such as commercial bank, microfinance institution, credit union, cooperative or post office.

Majority of the financially excluded population are from the rural areas where they have no access to any formal financial institutions. So, the RBI in 2014 introduced a new type of bank called Payments Banks (PBs) which will cater to the unbanked areas including the poor households, small businesses and migrant workers who were ignored by the formal financial institutions. A PB is a differentiated bank which combines the features of a PPI model and commercial banks but with no credit facilities. It is like any other bank but operating on a smaller scale with a maximum deposit limit of up to Rs. 2 lakh per individual customer (RBI, 2014). The deposit limit was set at Rs.1 lakh initially but raised to Rs. 2 lakh in 2021 (Motiani, 2021). PBs will fill the gap where the traditional banks failed to penetrate due to their profit motives.

The present study attempts to highlight the importance of PBs in the financial inclusion drive. The paper also presents a brief picture of the achievements of the active PBs and the contributions made so far in the financial inclusion of the country. The rest of the sections are structured as follows. Section 2 will present the literatures available related to my study. Section 3 includes the objectives of the study. Section 4 will explain the Research Methodology for the study. In section 5, the Data Analysis and discussions will be presented. Section 6 will conclude the study.

## 2. REVIEW OF LITERATURES

### 2.1. Evolution of Payment banks

Taking into account the success stories of other countries like Kenya (Vyas et. al., 2016), EU, Japan, Brazil, South Africa, etc., in allowing non-banks participation in the payment mechanism and the need of an innovative approach to develop financial inclusion in the country, the RBI formed a committee on 23 September 2013 which was headed by Nachiket Mor to devise a good strategy on financial inclusion. The Committee recommended the formation of a new type of bank called Payment bank which will have all the features of a PPI model and in addition, provide the basic banking services similar to a commercial bank (RBI, 2014). The Committee submitted its report on 7 January, 2014.

On 27 November 2014, the RBI released the final guidelines for PBs. The minimum capital requirement to open up a payments bank is INR 100 crore. The RBI would grant full licenses under section 22 of the Banking Regulation Act, 1949, if the conditions laid down are fulfilled. On 19 August



2015, the RBI gave ‘in-principle’ license to 11 entities to launch PB out of 41 applicants (RBI, 2014).

### 2.2. The Active Payment Banks at Present

Out of the 11 licensed players, 5 of them had surrendered their licenses. Cholamandalam Distribution Services, Sun Pharmaceuticals and Tech Mahindra have surrendered their licenses even before starting their operations owing to doubts of profitability due to the stringent regulations by the RBI (Bhakta, 2016). On July 15, 2019 Vodafone M-Pesa had shut shop due to regulatory curbs and stress in the sector (Kurup, 2019). Aditya Birla also discontinued their services from July 28, 2020 due to unanticipated developments in the business landscape which have made the economic model unviable (PTI, 2020). There are 6 active PBs currently which are Airtel PB, FINO PB, India Post PB, Paytm PB, NSDL PB and Jio PB.

Taking the cases of other countries where non-banks participation in the payment mechanism were quite successful (Goel & Manrai, 2016; Sakpal & Soni, 2019; Vyas et. al., 2016) and considering the various drawbacks of the PPI model (RBI, 2014), the RBI had introduced PBs where large customer-based non-bank companies were given licenses to fulfil the purpose of financial inclusion in the country. The main advantages of these PBs over the traditional banks are the higher interest rates on savings deposits offered, no minimum balance maintenance requirements, ease of opening bank accounts and providing banking services through their outlets which are available in nearby stores in every localities (Shivnani & Siwach, 2017). The customers can also open accounts and avail all the banking services of these banks through their mobile phones without having to go out from their homes (Sidkar & Kumar, 2017).

Despite the various benefits and prospects available for PBs to thrive in the financial inclusion drive, there are also many challenges faced by these niche banks. The regulatory frameworks and the stringent guidelines imposed by the RBI

## 5. ANALYSIS OF DATA

### 5.1. Importance of Payments banks

**Table 1: Comparison between PBs, commercial banks and PPIs**

Mode of Comparison	PBs	Commercial banks	PPIs
<b>Services Provided</b>	Saving A/Cs, Current A/Cs, withdrawals, online purchases, transactions, PPIs, bill payments through their online apps or nearby local stores and third-party products through their partner banks	Deposits, Loans, withdrawals, Investments, PPIs, Insurance and Pension products, online transactions through net banking or apps of the particular banks etc.	Purchases of goods and services through cards or digital wallets, withdrawals and transactions.
<b>Deposits</b>	PBs allows deposits of up to Rs. 2 lakh per individual customer.	Commercial banks have no limit on deposits.	The maximum amount that can be stored in a prepaid card is up to Rs. 50,000. However, the amount that can be stored also varies depending on the type of PPIs.
<b>Interest on deposits</b>	Pays interest on deposits.	Pays interest on deposits.	Does not pay interest on deposits.
<b>Loans</b>	PBs are restricted from providing credit cards and loans.	Provides loans and credit cards.	No loans are provided.

on PBs, the large investments required to grow the business and the nature of the business model makes it difficult for the PBs to survive and compete with other financial institutions (Goel & Manrai, 2016; Pramani & Iyer, 2022; Sakpal & Soni, 2019). In fact, there are still many unbanked people who are unaware of the services or reluctant to adopt the services provided by PBs due to low awareness level, low education, low income, trust issues and availability of low-cost alternatives (Kuriakose & Johnson, 2021; Pramani & Iyer, 2022).

The study attempts to highlight its importance, contributions and achievements made so far in the financial inclusion drive. The study also attempts to give some suggestions on how to improve the system to further thrive in the field which will be helpful for the policy makers and executives of PBs.

### 3. OBJECTIVES OF THE STUDY

The objectives of the study are:

- I. To highlight the importance of PBs in the financial inclusion drive of the country.
- II. To present a brief picture of the contributions made by the PBs in financial inclusion.
- III. To analyse the achievements made so far by the PBs in the cashless revolution with regard to financial inclusion of the country.

### 4. RESEARCH METHODOLOGY

The data have been collected from various secondary sources like Journals, Company Websites of the PBs, newspaper articles and RBI website related to the subject of the study. The study uses quantitative data and is analyzed using charts and tables. Data have been collected with regards to 6 active PBs. The analyses of data are grouped under three main heads- Importance, contributions and achievements of payments banks in financial inclusion.



<b>Examples</b>	Airtel PB, Fino PB, PayTm PB etc.	SBI, HDFC, Bank of Baroda etc.	PhonePe, Amazon Pay, Oxigen etc. are non-bank PPIs. Banks issuing PPIs includes Airtel PB (e.g., Airtel money wallet), Paytm PB (e.g., paytm food wallet), HDFC bank (HDFC prepaid cards) etc.
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Source: RBI website

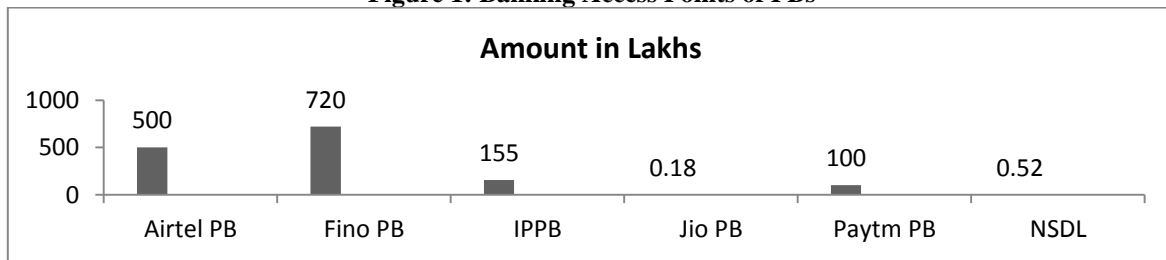
PBs provides all the services given by the commercial banks and PPIs. Interests are paid on the deposits unlike the PPIs. PBs does not provide credit services or loans unlike the commercial banks. So, PBs are a mixed model of the PPIs and commercial banks which sets it apart from other financial intermediaries. These banks can also partner with other traditional banks to provide third-party services such as mutual funds, pension and insurance products, sweep account facilities etc. These banks can act as business correspondents for the commercial banks. What sets PBs apart from PPIs and commercial banks is that PBs has outlets in almost every store in the local areas where formal banks are not available. Customers can avail basic banking services from the local

stores or through their mobile phones without having to travel to a bank.

A Commercial bank provides all the services of deposits, lending and interest payments but since it is a profit seeking entity, it fails to deliver the purpose of financial inclusion to the poor segments of the society. PPIs has so many drawbacks regarding KYC issues, customer authentication issues, non-payment of interest on deposits, contagion risk etc. So, to ease the drawbacks and limitations of PPIs and penetrate the segments where the traditional banks ignored, PBs were introduced to fill the gap.

### 5.2. Contributions of Payments banks in Financial Inclusion

Figure 1: Banking Access Points of PBs

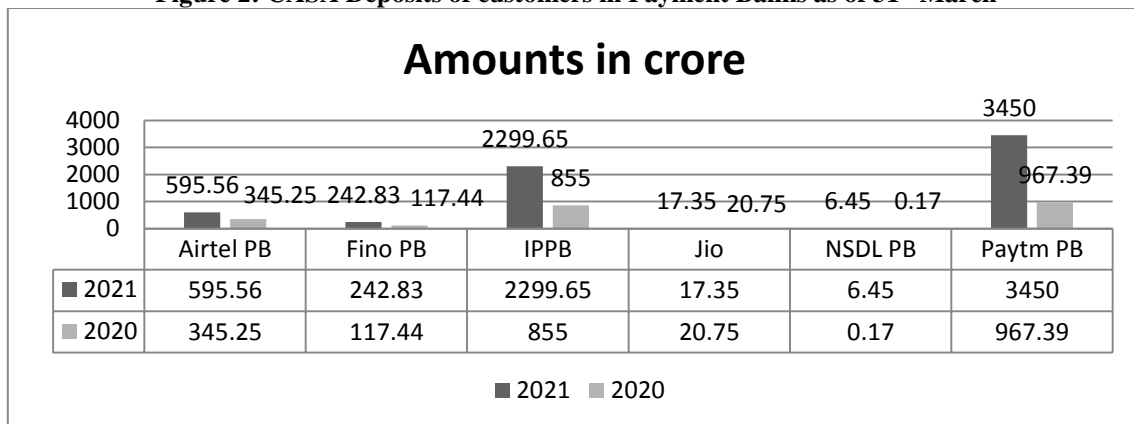


Source: Websites of the PBs

Banking access points are any places where transactions or basic banking services can be availed either through agent outlets or branches of the PBs. Fino PB has the largest banking access points which are 720 lakhs followed by Airtel PB which has 500 lakh banking points. Jio PB and NSDL PB

have the lowest banking points as compared to their rivals which are 0.18 lakh and 0.52 lakh respectively. In addition to 155 lakh banking points in the post offices across the country, IPPB also has 1.9 lakh Postmen and GDS who enables doorstep banking to the customers.

Figure 2: CASA Deposits of customers in Payment Banks as of 31<sup>st</sup> March

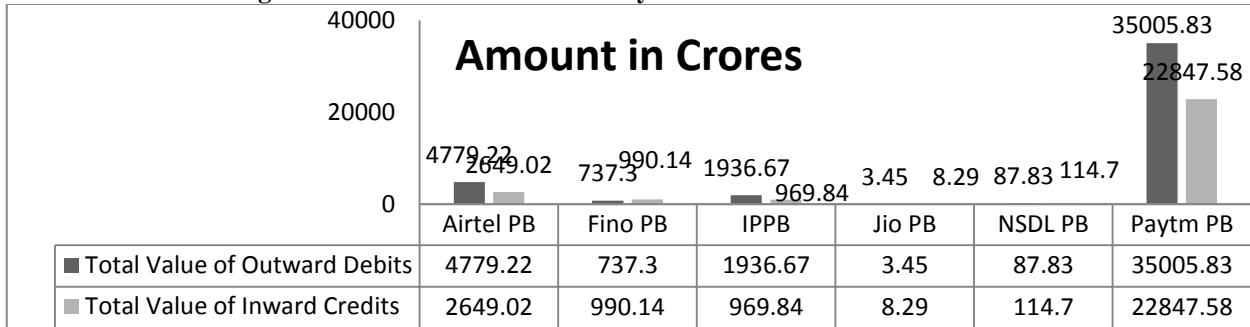


Source: Annual reports of the PBs, RBI Data Releases

Figure 2 shows the CASA (Current Account Savings Account) deposits of PBs by the customers for the FY2021 and FY2020. Paytm PB records the highest CASA deposits of

customers in both the financial years of 2020 and 2021 which was followed by IPPB and Airtel PB respectively.

**Figure 3: NEFT Transactions of Payment Banks as of December 2022**

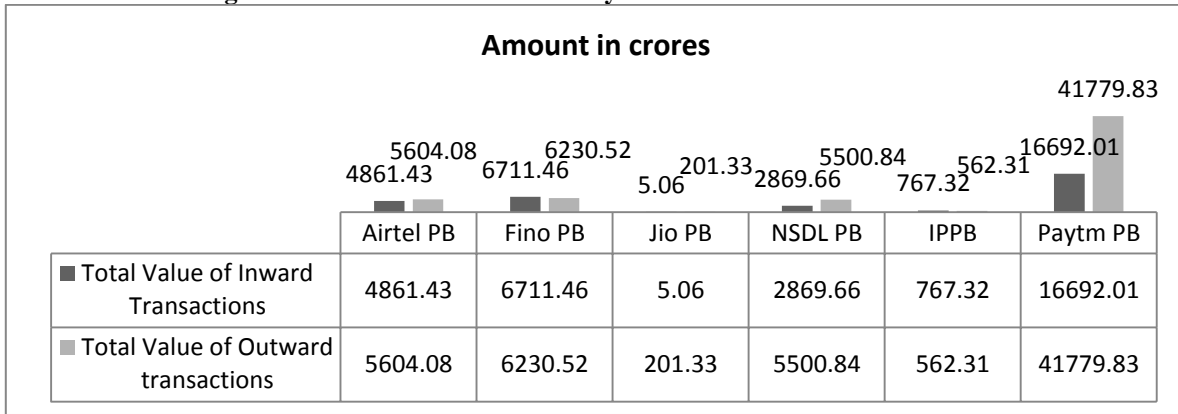


Source: RBI Data Releases

Paytm has the highest value of both inward and outward NEFT transactions which stands at Rs. 22847.58 crore and Rs. 35005.83 crore respectively. Jio PB has the lowest NEFT transactions with an outward debit of Rs. 3.45 crore and an

inward credit of Rs. 8.29 crore. Though Jio PB has not yet launched debit cards for its customers, it provides platform for transaction through its online Jio payments bank app for NEFT and RTGS transactions.

**Figure 4: RTGS Transactions of Payment Banks as of December 2022**



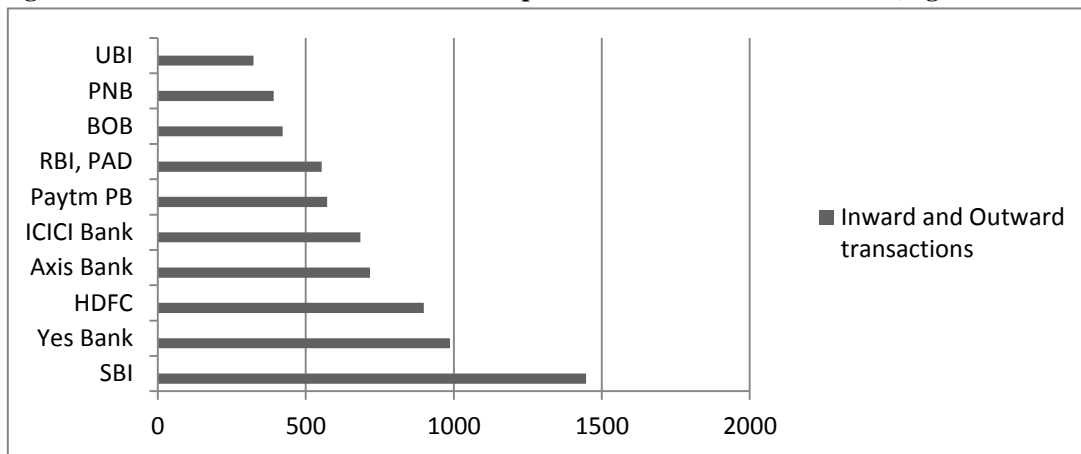
Source: RBI Data Releases

Paytm PB has the highest value of RTGS transactions with an inward of Rs.16692.01 crore and an outward of Rs. 41779.83 crore. Jio PB has the lowest transaction value in inward and

outward RTGS transactions which are Rs. 5.06 crore and Rs. 201.33 crore respectively.

**5.3. Achievements of Payments banks in Financial Inclusion**

**Figure 5: Volumes of NEFT transactions of top 10 banks as of December 2022 (Figures in Lakhs)**

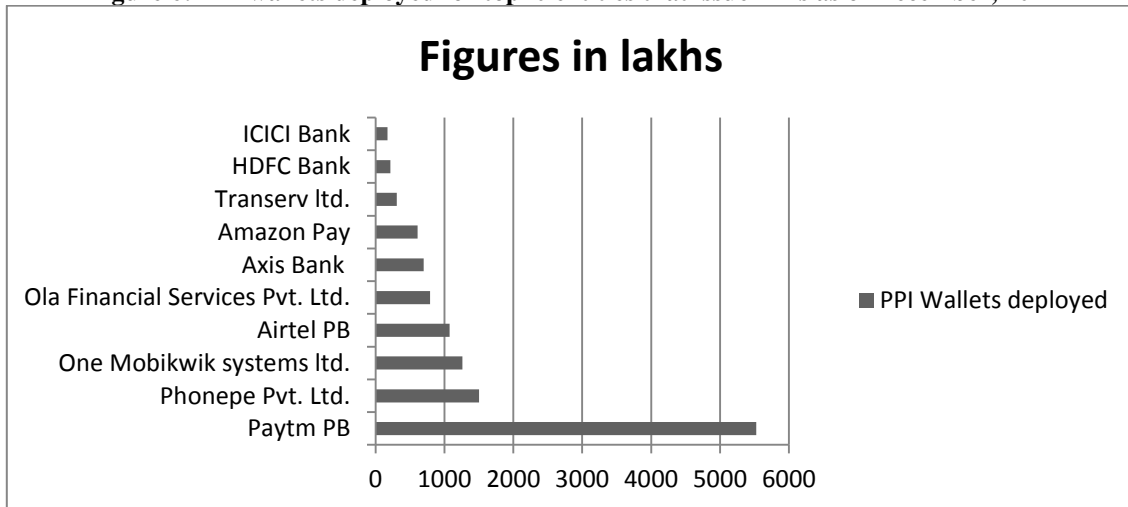


Source: RBI Data Releases

Among the top 10 banks in volumes of NEFT transactions, Paytm PB ranks 6<sup>th</sup> from among the banks that facilitate NEFT transactions with 572.19 lakh volumes of outward and inward

NEFT transactions. This ranking is done among a total of 229 banks that supports NEFT transactions.

**Figure 6: PPI wallets deployed for top10 entities that issue PPIs as of December, 2022**

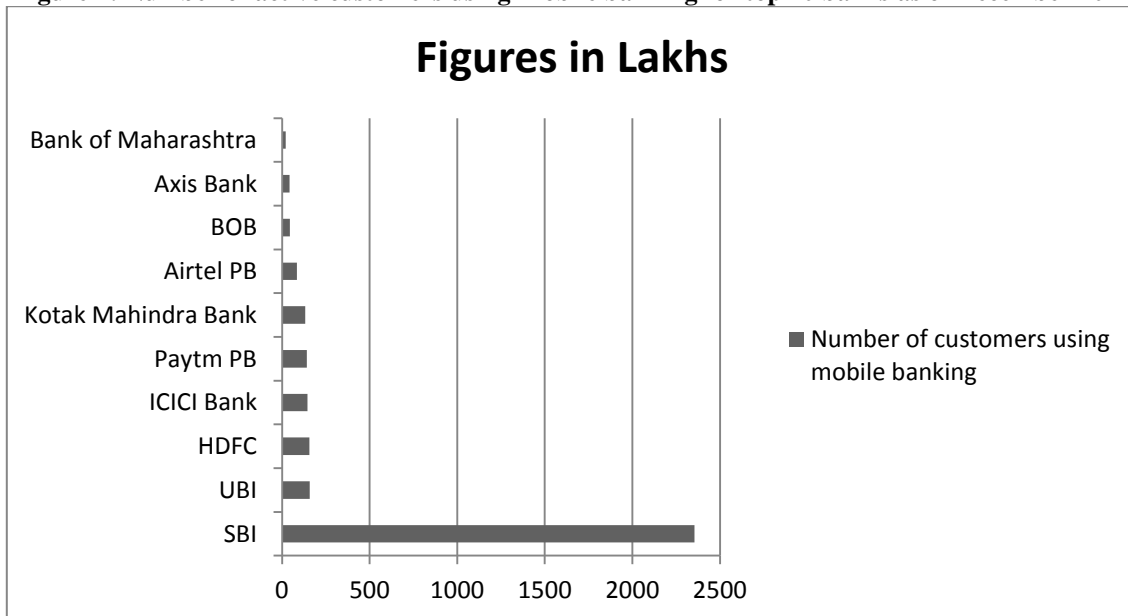


Source: RBI Data Releases

Out of 75 entities that issue PPIs, Paytm PB deployed the highest number of PPI wallets which is 5523.95 lakhs wallets

as of December, 2022. Airtel PB ranks 4<sup>th</sup> among the highest number of PPI wallets deployed.

**Figure 7: Number of active customers using Mobile banking for top 10 banks as of December 2022**



Source: RBI Data Releases

Out of 483 banks, the top 10 banks which have the highest number of customers using mobile banking are presented in figure 7. Paytm PB ranks 5<sup>th</sup> while Airtel PB ranks 7<sup>th</sup> from among the banks which provide mobile banking facilities.

## 6. CONCLUSION

Payment banks (PBs) are still in their developing stages as their operations started only few years ago. It will take some few more years for these PBs to recover from the expenses as these banks are prohibited from lending and they can earn only through service charges and by selling third-party products. The study was done on the 6 active PBs to present a brief scenario of financial inclusion through PBs. The analyses of data are done under three major heads viz., Importance, contributions and achievements of PBs in financial inclusion.

PBs has come a long way since its introduction in 2014 by the RBI. These banks have contributed tremendously in the financial inclusion drive in terms of savings, online transactions, utility bill payments etc. and most importantly, in the cashless revolution. The PB model is a great initiative to ease the banking experiences of the unbanked areas and it could achieve more if the rules laid down for these banks are eased and modified to meet their demands rather than shifting them into small finance banks. Most of the PBs are planning to shift to small finance banks due to the tight regulations imposed by the RBI, the low scope of earnings and the excessive expenditures required to run the businesses. It is time for the regulators to rethink and ease the regulations so that the intended purpose of PBs will be met. For the PBs to



thrive and survive in this competitive industry, the RBI should increase the deposit limit cap up to the demanded amount of Rs. 5 lakh per individual. The executives of the PBs should also focus on the remote areas where formal banks are not available instead of the urban and semi-urban areas where formal banks are available to fulfil the intended purpose of introducing these banks.

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## THE ROLE OF KARAKALPAK FOLK EPOS IN SPIRITUAL AND MORAL EDUCATION OF STUDENTS INSTITUTIONS OF HIGHER EDUCATION

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The transition of modern society to a market economy has led to a decline in humanistic values, a crisis of spirituality, individualism, a developing cult of money, which is especially destructive for the least adapted part of society - the youth. As the socio-cultural practice of the development of society shows, these negative influences can be resisted by a stable system of spiritual and moral values, which is offered by national culture in the form of folklore.

The issue of spiritual and moral education of the younger generations is one of the most significant issues of modern pedagogical science, because today's youth is the future of our country.

Spirituality is the need to aspire to the heights of being, listen to your inner voice and selflessly show love, mercy and compassion for all living things. In this regard, spiritual and moral education is a purposeful pedagogical process of student interaction with elements of spiritual culture.

Spirituality is a complex and multifaceted concept. It covers many aspects of human consciousness, thinking, beliefs, cultural heritage and the system of modern scientific and artistic values, customs, traditions, rituals, religion and religious practice.

Morality is a special form of social consciousness and a type of social relations, one of the main ways to regulate human actions in society with the help of norms. Unlike simple norms or traditions, moral norms are substantiated in the form of ideals of good and evil, due, justice, etc.

Morality is morality, a set of norms and principles of human behavior in relation to society and other people; the oldest form of social consciousness; a social institution that performs the functions of

regulating human behavior. Unlike a simple custom or tradition, moral norms receive an ideological justification in the form of ideals of good and evil, due, justice, etc.

Morality in its direct meaning is a custom, a habit, a rule. Often the word ethics is used as a synonym - habit, habit, custom.

Spiritual and moral education is a purposeful and systematic impact on the consciousness, feelings, and behavior of students in order to form their moral qualities that meet the requirements of public morality.

The highest goal of spiritual and moral education, the ideal towards which education should strive is a perfect person.

The main tasks of spiritual and moral education:

- Formation of spiritual and moral consciousness;
- Education and development of spiritual and moral feelings;
- Development of skills and habits of spiritual and moral behavior.

Spiritual and moral education includes: - the formation of a person's consciousness of connection with society, dependence on it, the need to coordinate their behavior with the interests of society;

- Familiarization with spiritual and moral ideals, the requirements of society, proof of their legitimacy and reasonableness;

- The transformation of spiritual and moral knowledge into spiritual and moral convictions;

- The formation of stable spiritual and moral feelings and spiritual and moral qualities, a high culture of behavior;

- the formation of spiritual and moral habits.



The spiritual and moral education of the younger generation is based on both universal human values, enduring moral norms developed by people in the process of the historical development of society, and new principles and norms that have arisen at the present stage of development of society. Spiritual and moral qualities include honesty, justice, duty, decency, responsibility, honor, conscience, dignity, humanism, disinterestedness, diligence, respect for elders.

Folk epic - heroic epics and songs of patriotic content with a historical basis, performed by folk singers, usually to the accompaniment of a national musical instrument. Folk epic is more traditional than other genres of folklore, it is characterized by a wide coverage of events in time and space, completeness of the image. The folk epic also has its own specific features.

The hero of the epic is a hero, a warrior, in whom the best features of the national character are embodied. He is distinguished by extraordinary strength, courage; he is a fighter for the independence of his native land and native people, the images of which in the epic are of great ideological significance.

Karakalpak folk epics for many centuries had a significant impact on the spiritual and moral education of the younger generation.

The folklore of the Karakalpaks is very rich, epics occupy a special place in it. At the moment, 100 volumes of epics have been published by the Karakalpaks, most of which are purely Karakalpak epics.

Dastans "Alpamys", "Edige", "Maspatscha", "Koblan", "Sharyar", "Kyryk Kyz", "Garip Ashyk", "Yer Shora", "Bozuglan", "Yer Ziyuar", "Kurbanbek", "Kanshayim", "Sayatkhan-Khamre", "Gorugly", "Yusup-Akhmet", "Bozaman", "Ilimkhan", "Dauletiyarbek" and others have been performed by zhyrau folk singers for several centuries.

Folk epics instill in students a love for everything beautiful, sublime, diligence, heroism, courage, patriotism, love for real life, the beauty of nature. Social experiences and feelings of folk heroes have a great influence on the education of students.

Thus, folk epics can contribute to the formation of students' love and respect for their people, native land, family, man, his material and spiritual culture, work, creativity, art and other basic spiritual and moral values.

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## OPPORTUNITIES FOR FOOD FUSIONS

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### ABSTRACT

*Food is an integral part of any culture. Changes occurring in food culture can indicate changes in the cultural environment of the society. In the modern era, the demand for new taste and new recipes are increasing day by day. Instead of traditional food, people want to try something new. With adequate nutrients in such situation, people are moving towards food fusion to change the taste. This chapter will deal with food fusion. Food fusion is the preparation of a new dish by mixing two or more traditional dishes and providing them a new flavour. In short, food fusion is the modernization of traditional dishes with lots of nutritional value. It provides variety in food to the people. Food fusion has been very popular in recent decades. It is one of the fastest growing food trends across the global. Food fusion gives people a chance to enjoy new cuisines. Indian food fusion is also gradually making its own identity in the world. Food fusion provides an opportunity for local foods to be recognized globally. Presently food fusion is becoming an alternative to fast food.*

**KEYWORDS :- Food Fusion , Food Philosophy , Food Cuisine .**

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### INTRODUCTION

The way to heart goes through stomach. A good and tasty food wins everyone's heart. The craving for delicious food is always present in human nature. That's why many types of recipes were invented.

In the process of making food more palatable, new recipes were created. The process of making new recipes existed earlier, is still present today and will continue for future. With time, people's food taste is also changing. Along with the types of dishes, the way of eating is also changing. In the modern era, the demand for new tastes and new dishes is increasing. Instead of traditional food, people now want to try something new. The medium of communication, especially television and mobiles, has created interest in different planning patterns for cooking. As our world becomes increasingly interconnected, we are exposed to more new cultures and cuisines than ever before. In this era of technology, recipes for new experiments are presented on social media as Facebook and YouTube etc. Which encourages people to do some new experiments in food. A dish with a different taste that suits us. In such a situation, the effect of fusion food is increasing. You must have heard a saying that 'we are what we eat'. The philosophy of food reflects the ethical, political, social, artistic, identity-defining aspects of food. This ideal food philosophy saves us from junk food and fast food and motivates us to take practical healthy diet. Food fusion has become very popular in recent decades. In such a situation, people are moving towards food fusion to change the taste.

### WHAT IS FOOD FUSION

Food fusion is the preparation of a new dish by mixing two or more traditional dishes. Food fusion is the presentation of the best of traditional dishes by doing some unique experiments with them. Food preparation methods from different cultures mix to produce new types of cuisine. Food fusion is a cuisine that combines elements of different traditions to create a fusion of them with new flavors.

We can define food fusion as innovation in food. Food fusion can take place between several traditional cuisines of a regional region that are used to flavors the dish.

This changes the tastes of the people and gives them a chance to enjoy new dishes. Food fusion gives us variety by giving a new taste and new look to the existing dishes and making them special dishes. In short, it is a mix and match of different cuisines. Food mash ups are also a form of food fusion which is one of the fastest growing food trends across the globe.

### BACKGROUND OF FOOD FUSION

Slowly moving towards modernity, as the means of communication and transportation increased, humans entered from one culture to another will exchanged of taste and cuisine. The increasing influx of migrants has played an important role in popularizing fusion food. The history of fusion food is so complex that its origins cannot be easily determined. It is in the nature of man to try to create something new by mixing cuisines. Food fusion has been adopted since the 16th century to adapt the cuisines of different cultures. Food fusion was defined in the late 1900s. Wolfgang Puck is considered one of the pioneers of



food fusion who created food fusion combining French and Chinese traditions at the Imperial Dynasty restaurant in Hanford, California in the 1960s.

Food fusion was created by mixing French and Chinese traditions in the restaurant of Imperial Dynasty. Chef Norman van Aken was the first to use the term 'fusion cooking' when he gave a speech in 1988 at a symposium in Santa Fe to several well-known food industry people about how food fusion has always existed. He mentioned the use of coffee in Italian cuisine. In the 1970s, French chefs experimented with adding other ingredients to some of their dishes. Japanese cooking techniques were combined with French techniques in France. For example, after Japan won the claim of its island nation from China, the Chinese noodle was made in its own way by the Japanese and it became known as Shin Soba - Chinese Noodle. Food fusion is classified according to a particular cuisine or style. It is the art of creativity and innovation. Food fusion has been included in the list of foodies.

The term fusion food was added to the Oxford English Dictionary in July 2002. It was defined as "fusion cuisine". Basically it is a style of US cuisine that blends cuisine methods from different cultures.

### **SIMILARITIES BETWEEN MODERN CUISINE AND FOOD FUSION**

Modern cuisine includes creative and innovation, in which new dishes are made by adopting new techniques. In food fusion too, along with traditional dishes, innovative methods and other elements are incorporated and made in a new delicious form. The food is diversified by presenting many traditional dishes in a modern form. These are presented in the form of exquisite dishes. Food fusion can be defined as modern cuisine. Which brings a change in the traditional way of eating, making it more delicious and exciting. Food fusion combines local cuisine with international techniques to give it a sophisticated twist.

### **SIMILARITIES BETWEEN TRADITIONAL CUISINE AND FOOD FUSION**

Traditional cuisine is food that has been consumed for many generations and has established its identity as a national cuisine or local cuisine. They are related to the feelings of the people. These traditional dishes are presented in a new form by including some other elements and methods. Fusion cuisine can also be considered as a modern form of traditional cuisine. Food fusion is a combination of different traditional dishes. Food fusion helps in giving these traditional dishes a unique identity by creating innovative methods.

### **BENEFITS OF FOOD FUSION**

Following are the benefits of Food Fusion -

1. The main advantage of Food Fusion is that there will be an opportunity to come forward with traditional recipes.
2. A new identity will be available to them. It gives a modern look to traditional dishes. Food Fusion creates diversity in foods. Variations and creativity are added to the dishes by changing the food items.
3. Food fusion provides an alternative to fast food. People get it in the form of some new and tasty dish. One of the main benefits of food fusion is to enhance food habits and inspiring to enjoy new flavours to public.
4. Food fusion provides new business opportunities. Directs people to prepare dishes using required knowledge and various skills. Due to which new innovative jobs are created in this type of food industry.
5. Food fusion makes dishes more delicious. Provides variety to food and makes it tasty. The importance of food fusion increases even more due to the increasing interest of people to taste new cuisines.
6. Food Fusion combines the cuisines of different countries by combining them. Incorporating elements of one's own culture into the cuisine of another culture inspires one to create something different without compromising on one's own taste.
7. Food fusion gives an opportunity to stamp our identity on new cuisines. Provides support in creating a global identity of local cuisine. Provides opportunities for local food brands to rise.
8. Food fusion enhances the quality of cuisine and makes it cost effective.

### **INDIAN FOOD FUSION**

In Indian culture, where good food and especially sweets are an integral part of celebrating festivals. These traditional sweets are the pride of Indian festivals. The food of different states and regions has its own distinct identity and taste. Now food fusion is the best way to create something innovative with desi touch which blends the best and makes something creative. It appeals more to the younger generation. There are many cuisines around the world such as British, Irish, Scottish, French, Italian, Spanish, German, Russian, Swiss, Scandinavian, Middle Eastern, American, Mexican, Caribbean and African etc. There are Indian, Pakistani, Thai, Chinese, Korean, Japanese and Indonesian culinary systems in Asia and South Asia. The ingredients and methods of preparation used in the cuisine of all these countries are quite different. India itself has a wide variety of regional cuisines from north to south and east to west. Even if the same food items are available, the methods of making them are different and their taste is also different. For example, Khichdi is a dish that is eaten all over India but is prepared in different ways in each state. It is prepared by different cooking methods. Food fusion combines different culinary traditions of the same country. It tries to establish an emotional relationship



by increasing reconciliation between them and Works to connect people. Establishes mutual love and brotherhood among them. In this way, we can say that food fusion is an art of connecting the heart along with connecting the dishes.

## CONCLUSION

The foods that we eat today actually represents a fusion of ingredients, flavour, components, recipes styles and food philosophy. Food fusion is combination of ingredients and techniques from different parts of the world. Food fusion is an emotionally bonding element for human being and family. Food fusion combine different tradition dishes of a single country. Food fusion establishes emotional bonding by increasing reconciliation.

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## RURAL ENTREPRENEURSHIP: A KEY TO RURAL REVITALIZATION

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### ABSTRACT

*Rural entrepreneurship is now a day major opportunity for people who live in rural areas. Entrepreneurs are driven to achieve success in their business along with the qualities of a Leader, Manager, Dreamer, Innovator, risk taker, continuous learner, and decision maker & most important to implement all of these qualities into the work. There are a lot of examples of entrepreneurs in North East India who are now called synonymous with 'Success'. They saw the bigger picture but wisely started their business as a very small unit. Entrepreneurs set the example of turning their dream into reality, but success is not always as easy as it looks. It is also a fact that the majority of rural entrepreneurs are facing many problems due to the non-availability of primary amenities in rural areas of developing states like Manipur. Lack of education, financial problems, and insufficient technical and conceptual ability it is too difficult for rural entrepreneurs to establish industries in rural areas. This paper makes an attempt to find out the level of emotional intelligence towards rural entrepreneurship in Senapati District of Manipur. The findings of the research activity could help policy planners to enhance the economics development of rural entrepreneurs in Senapati district of Manipur, India.*

**KEYWORDS:** *Emotional Intelligence, Rural Entrepreneur, Entrepreneurial Issues, Prospects of Entrepreneurship, Economic Development.*

### INTRODUCTION

Since entrepreneurship is a major contributor to economic growth, it has assumed special significance in today's dynamism of the commercial world. Establishing new businesses fosters economic growth in their areas and significantly boosts regional economies. Numerous municipalities that have started entrepreneurial development plans over the past 20 years have made this principle very clear. Undoubtedly, fewer than half of all new enterprises remain in business after their first few years, and even fewer go on to experience rapid development (Malecki, 1988).

The problem is essentially lopsided development which is a development of one area at the cost of development of some other place, with concomitant associated problems of underdevelopment. For instance, we have seen unemployment or underemployment in the villages that has led to influx of rural population to the cities. What is needed is to create a situation so that the migration from rural areas to urban areas comes down. Migration per se is not always undesirable but it should be the minimum as far as employment is concerned. Rather the situation should be such that people should find it worthwhile to shift themselves from towns and cities to rural areas because of realization of better opportunities there. In other words, migration from rural areas should not only get checked but overpopulated towns and cities should also get decongested. If it is so, ways can always be found out. One is by forcibly stopping villagers from settling in the slums of towns and cities, making use of all powers to clear the slums so the villagers are forced to go back. But such practices have

not achieved the desired results in the past. Apart from causing suffering to the poor people and adding to the expenditure of the Government, social tensions and economic hardships created by the government officials and their staff in every demolition of slums is not desirable from a sane government. Moreover, when a slum is demolished people do not move out of urban localities. They only relocate to a nearby place because they are entrenched in the economy of the town or city. Though governments have tried out various schemes for generating incomes in the rural areas such as government initiatives have not stopped people from moving out of villages to cities. This is because such government initiatives are not on their own capable of enabling people to earn adequately and ameliorate their conditions. There has to be some committed enterprising individual or a group of people.

Still, entrepreneurs are now recognized as vital sources of economic growth to local communities, and that has spawned new entrepreneurship programmes (Leicht & Jenkins, 1994). Entrepreneurs connected their communities to the larger, global economy, produced new jobs, and raised local incomes and wealth. These advantages did, however, fluctuate significantly between various types of entrepreneurs. Some business owners founded their companies in an effort to improve their quality of life. Other businesspeople launched ventures that would experience rapid growth. While many new businesses fail, those that do frequently create jobs, raise salaries and add new wealth to a community (Henderson, 2002).



Different people assign different meanings to the phrase "rural entrepreneurship." It can be characterised as rural entrepreneurship. In other words, the industrialization of rural areas was implied by rural entrepreneurship. Any business with a population of under 10,000 people in a rural area, or any other business that produces goods or provides services with or without the use of electricity, and whose fixed capital investment per worker does not exceed a thousand rupees, is considered a rural enterprise (Soundarapandian, 1999). The rural business was encouraged with the justifications of labour-intensive spirit, employment possibilities, balanced regional development, fostering art and creativity, etc. for the growth of rural enterprise (Matthani, 1978). However, there were a number of obstacles to the growth of entrepreneurship in rural areas, including a lack of financing available, the use of antiquated technologies, subpar quality standards, and unsafe infrastructure. The introduction of effective measures for fostering entrepreneurship in rural areas depended on rural entrepreneurship (Mandal, 2011). Entrepreneurs, according to Meridith et al. (1983), were self-assured, task-result-driven, risk-takers, possessing leadership abilities, and future-oriented. Entrepreneurial characteristics include self-assurance, independence and individuality, optimism, a need for success, a profit-oriented mindset, persistence and perseverance, determination and hard work, drive and energy, initiative, risk-taking ability and a desire for challenges, leadership behaviour, responsiveness to suggestions and criticism, innovative and creative thinking, flexibility, resourcefulness, versatility, knowledge, foresight, and perceptiveness.

According to Nandram & Samsom (2007), in order to be a successful entrepreneur, a person must be vigilant to notice the chances needed to launch an entrepreneurial activity and be convincing when requesting collaboration or investment. To work effectively, he must be able to draw lessons from his own experiences and be goal-oriented. Entrepreneurial qualities included being decisive, pragmatic to reduce uncertainty, flexible in their surroundings, and self-assured to handle successes and mistakes. Entrepreneurial traits, according to Nurwahida & Manaf (2012), were crucial to identify among entrepreneurs given that they have drawn attention on a global scale. More research has been done on the factors that influence an entrepreneur's success as an entrepreneur. According to Ramalingam & Gayatri (2009), innovation can be employed as a tactical tool for the growth of entrepreneurship. The study came to the conclusion that tiny

innovations in rural areas would undoubtedly catch up with the rest of the population, improving the quality of life for many individuals across the nation. Personality factors may indirectly affect entrepreneurial performance, according to Tsai et al. (2008). As a result, it is possible to consider entrepreneurship as a mediator between personality qualities and entrepreneurial intention.

Sherief (2005) made an effort to comprehend the factors that influence rural entrepreneurship and the circumstances that support its growth. The study came to the conclusion that entrepreneurship needed to be encouraged in order to hasten economic development in rural areas. According to Dollingers (2003), entrepreneurship was defined as the act of innovating in a risky and unpredictable environment to form a new economic organisation. The Big Five Scale was considered the most reliable scale to measure a measurable personality attribute. According to Goldberg (1981) and Peabody (1987), the big five personality traits conscientiousness, extraversion, openness to experience, and agreeableness significantly and positively influence entrepreneurship, while neuroticism significantly and negatively influences it.

After analysing the literature, it was discovered that little research had been done on the level of emotional intelligence towards rural entrepreneurship in Manipur's Senapati area. As a result, it was decided to take up the study on the level of emotional intelligence towards rural entrepreneurship in the Senapati district. This study sought to identify the numerous entrepreneurial features among Senapati District's rural entrepreneurs as well as to acclimatize them to those traits.

**METHOD**

The study was exploratory in nature. The primary data was used to meet the objectives of the study. Keeping in view the aforesaid objectives in mind, the rural entrepreneurs in the district were included as the research population. The study was conducted in the Senapati District of Manipur where two blocks, namely Karong and Tadubi, were selected as the study area. In order to find out the level of emotional intelligence towards rural entrepreneurs 19 and 22 sample entrepreneurs were selected from each of the two blocks respectively. A total of 41 entrepreneurs were administered with a well-structured schedule.

**Table No. 1  
Sample Design**

Coverage	Senapati District, Manipur
Sample Unit	Rural Enterprises have the existence of minimum 3 years or more with a minimum of 2 workers.
Sample Element	Enterprise owner
Sampling Technique	Simple Random Sampling
Population	205 Enterprises
Sample Size	41 Enterprises (20% of the population)

The primary data was collected from the enterprise owners through a well-designed schedule. A personal interview method of data collection was also adopted to

collect primary data from the entrepreneurs. The five-point Likert scale was used in designing the schedule. Different responses were grouped into a number of categories and



analyses were made on the number falling into the groups. statistical package for social sciences (SPSS) software.  
 Collected data were presented in the statistical tables using

**Table No. 2**  
**Mean and Standard Deviation of emotional intelligence towards rural entrepreneurship**

Descriptive Statistics				
	N	Mean	Std. Deviation	Rank
I seek out to meet the group’s mission	41	3.6097	1.18063	14
I adapt to the changing circumstances	41	2.3902	1.18063	16
I am organized and careful with my work	41	4.5121	0.59673	1
I can reflect and learn from my experience	41	4.2782	. 0.67172	2
I provide original solutions to problems	41	4.0587	. 0.70538	6
I always look for new ideas	41	4.0000	. 0.94868	8
I take strong positions based on my principles	41	4.0975	. 0.83080	5
I adopt new perspectives and approaches	41	3.0731	1.23268	15
I am aware of my capabilities and my limitations	41	3.8536	1.01392	11
I fulfill my commitments and my promises	41	3.8780	. 0.92723	10
I have a strong motivation to achieve	41	3.7804	1.01272	12
I realize the power relationships within a group	41	4.0487	. 0.66900	7
I am aware of when to make a change	41	3.7560	1.13535	13
I promote the enthusiasm of the people	41	3.8780	1.12238	10
When necessary, I take decisions independently	41	4.1707	. 0.94610	4
I believe in mutual beneficial relationships	41	4.1951	. 0.95445	3
I am very committed to train others	41	3.9268	1.10431	9

Source: Primary Data

The analysis indicates the mean and standard deviation of the statements of the scale towards the level of emotional intelligence. The scale consists of seventeen statements with a five-point Likert scale. The mean value ranges from 4.51 to 2.39. The mean value shows that there is a minor difference in the statements. The calculated standard deviation lies from 1.23 to 0.59. It is found that statement “I am organized and careful with my work” has shown the highest secured of the mean value (4.51), followed by the statement “I can reflect and learn from my experience” comes second in the order (4.27). The statement “I believe in mutual beneficial relationships” comes third in the order (4.19). The statement “When necessary, I take decisions independently” comes forth in order (4.17). The statement “I take strong positions based on my principles” comes fifth in order (4.09). The statement “I provide original solutions to problems” comes sixth in order (4.05). The statement “I realize the power relationships within a group” comes seventh in order

(4.04). The statement “I always look for new ideas” comes eight in order (4.00). The statement “I am very committed to train others” comes under ninth in order (3.92). The next two statement “I fulfill my commitments and my promises” and “I promote the enthusiasm of the people” comes tenth in order (3.87). The statement “I am aware of my capabilities and my limitations” comes eleventh on order (3.85). The statement “I have a strong motivation to achieve” comes twelve in order (3.78). The statement “I am aware of when to make a change” comes thirteen in order (3.75). The statement “I seek out to meet the group’s mission” comes 14<sup>th</sup> in order (3.60). The statement “I adopt new perspectives and approaches” comes 15<sup>th</sup> in order (3.07). And the statement “I adopt new perspectives and approaches” comes 16<sup>th</sup> in order (2.39).

The above analysis depicts the standard deviation value concerning the level of emotional intelligence towards rural entrepreneurship is found to be at a similar level.



**Table No. 3**  
**Distribution of the respondents by the level of emotional intelligence towards rural entrepreneurship**

Factor	Frequency	Per cent	
Level of Emotional Intelligence	Very High	8	19.51
	High	3	7.32
	Moderate	26	63.42
	Low	4	9.75
	<b>Total</b>	<b>41</b>	<b>100.0</b>

Source: Primary Data

The above table shows the level of emotional intelligence towards rural entrepreneurship in the study area. Using K-mean cluster analysis divided economic impact into three groups high, moderate and low. The result describes that the majority of the respondents (63.42%) face a moderate level of emotional intelligence towards rural entrepreneurship: only 19.51 per cent were very high level of economic impact, 9.75

per cent face a low level of emotional intelligence towards rural entrepreneurship and 7.32 per cent were high level of emotional intelligence towards rural entrepreneurship.

It is concluded that the majority of the respondent (63.42%) face a moderate level of emotional intelligence towards rural entrepreneurship in the study area.

**Table No. 4**  
**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.596
Approx. Chi-Square	372.674
Bartlett's Test of Sphericity	df
	136
	Sig.
	.000

In Table 4, KMO measure of sampling adequacy (0.596) was higher than 0.5. The calculated value indicated that the results from factor analysis was meaningful. Similarly, the Bartlett's test of sphericity was significant at 0.00 which was much less than 0.05 indicating that the outcome from factor analysis could be highly useful.

## CONCLUSIONS

The result describes that the majority of the respondents (63.42%) face a moderate level of emotional intelligence towards rural entrepreneurship in the form of I am organized and careful with my work, I can reflect and learn from my experience, I believe in mutual beneficial relationships, When necessary, I take decisions independently, I take strong positions based on my principles, I provide original solutions to problems, I realize the power relationships within a group, I always look for new ideas, I am very committed to train others, I fulfill my commitments and my promises, I promote the enthusiasm of the people, I am aware of my capabilities and my limitations, I have a strong motivation to achieve, I am aware of when to make a change, I seek out to meet the group's mission, I adopt new perspectives and approaches, and I adopt new perspectives and approaches.

After analysing level of emotional intelligence towards rural entrepreneurship, it could be suggested that the following entrepreneur traits were needed to be a successful entrepreneur i.e., entrepreneurial identity, responsiveness, accountability, and adapt to change. Rural Entrepreneurs should be capable of making use of the government policies and schemes for the betterment of rural

people. This is possible when young people consider rural areas as places of opportunities. Despite all the inadequacies in rural areas one should assess their strengths and build on them to make rural areas places of opportunities. Enabling them to think positively, creatively. Young people with such perspective and with the help of rightly channelized efforts would usher in an era of rural entrepreneurship.

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# ATTITUDE TOWARDS TEACHING AND PROFESSIONAL QUALIFICATION OF PROSPECTIVE TEACHERS IN A MULTI-GRADE CLASSROOM

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## ABSTRACT

*The purpose of this descriptive correlational research is to investigate the attitudes and professional qualification of BEED students enrolled in teaching multi-grade classes. The results showed that the respondents had an agreeable attitude towards the teaching profession. The mean score of the responses on professional qualification was very high, indicating that prospective teachers have a good understanding of the skills and competencies required for effective teaching in a multi-grade classroom setting. However, there was a negative correlation between attitudes towards teaching profession and professional qualification, which was not significant. The study highlighted the need for teacher education programs to provide more practical training opportunities and relevant curricula to enhance the professional competence of prospective teachers. The results also emphasized the importance of considering age and teaching experience when tailoring training programs to better address the needs of different groups of prospective teachers. Further research with a larger and more diverse group of participants is necessary to better understand the complex relationship between attitudes towards teaching profession and professional qualification.*

**KEYWORDS:** *pre-service teachers, professional qualification, teaching multi-grade classes, teaching profession*

## INTRODUCTION

Multi-grade teaching occurs within an educational system in which a single class is consist of two or more student grade levels compared with the typical classroom setup which a single classroom contains students of only one grade level. However, this may not be the case in systems where grade level repetition and acceleration are common (Berry, 2000). Moreover, “multi-grade teaching encompasses the teaching of children from two or more grade levels in a single class” (Romo, 2021). Therefore, it requires the specific use of teaching and learning strategies, methodologies, techniques and learning activity sheets. In real sense, the reasons for their formation vary but are always related to the number of students, the number of available teachers, or both.

In the Philippines educational setting, the offering of multi-grade classes is inevitable, since, just like other countries, ours also have constraints in infrastructure and manpower to serve the learners, particularly those in the far-flung areas. Moreover, DO No. 96, s. 1997 or the “Policies and Guidelines in the Organization and Operation of Multigrade (MG) Classes” outlined the implementing guidelines and policies on the organization of multigrade classes to provide access to schools for children in far-flung barangays and to incomplete schools. These also includes provisions on allocating classroom to multigrade classes, provision of textbooks and other support material including allocating

teacher items and or assigning teachers. In addition, DEPED Order No. 63 s. 2010 also outlines the provisions on enhancing Deped Order #81 s. 2009 on strengthening the implementation of the multigrade education program in Philippine education. Furthermore, in the Philippines, some teachers’ problems in elementary schools, especially in rural and remote areas, are lack of training and insufficient resources and findings (Magno, 2014 as cited in Naparan & Alinsug, 2021). Apparently, most of these teachers handling multigrade classes are relatively young and they are in their prime years of teaching (Ballesteros & Ocampo, 2016). Despite the in adversities teachers experienced, multigrade teachers find ways to serve the students better (Napan & Alinsug, 2021).

However, during their pre-service education and training in their respective teacher education institutions their focus was not on multigrade classes. This supports the idea of Cadosales (2017) as cited in Naparan and Alinsug (2021) that, “during the practice teaching years of elementary teachers, their mentors were trained to be ready in the actual world of teaching, yet this training does not focus on multigrade teaching. The teachers’ ability to deliver the lesson well is crucial to the students (Cadosales, 2011 as cited in Naparan & Alinsug, 2021).

To address the call of profession and to be competent as teachers in the multigrade, multigrade teachers are educators, so they are expected to manifest teaching



proficiencies and attributes just like contemporary teachers (Mendoza-Sintones, 2019).

Based on the aforementioned literatures, the present determined the attitude towards teaching and the perceived professional qualifications of pre-service teachers particularly those who are enrolled in the course teaching in the multi-grade class.

### Statement of the Problem

This study aimed to evaluate the prospective teachers enrolled in Teaching Multi-Grade Classes course of Eastern Samar State University Guiuan.

Specifically, it sought to answer the following research questions:

1. What is the profile of the respondents in terms of:
  - 1.1. Attitude towards teaching profession; and
  - 1.2. Professional qualification.
2. Is there a significant relationship between the attitude towards teaching profession and professional qualification of prospective teachers in the multi-grade classroom.
3. What recommendations can be proposed based from the result of the study?

### Significance of the Study

Basically, this serves as a baseline data to determine the needs and prospects of BEED students enrolled in teaching multigrade classes. Moreover, this will also help teacher education training institutions to formulate mechanisms in increasing and sustaining high-class professional training to pre-service teachers to become competent in teaching multi-grade classes.

### METHODOLOGY

This section of the research paper presents the research design, sampling procedure, the respondents of the study, instrumentation, the data gathering procedures, and ethical considerations carried out in the conduct of this research study. Further it also explains the statistical tools, treatment and analysis of the data gathered.

#### Research Design

The research study employed the use of quantitative research particularly the descriptive-correlational research design. The use of the descriptive design in this study helped in interpreting the relationship between variables (Gall et al., 1993 cited in Yalley, 2017). Similarly, the use of correlational research design enables the researcher to use a "correlational statistical test to describe and measure the degree of association (or relationships) between two or more variables" (Creswell, 2012).

#### Respondents of the Study

The respondents of the study were the thirty-three (33) prospective teachers enrolled in the Teaching Multi-Grade Classes course of the BEED program of the College of Education of Eastern Samar State University Guiuan, Eastern Samar.

#### Sampling Design

A purposive sampling technique was used in identifying the respondents of the study. As defined, "purposive sampling refers to a group of non-probability sampling techniques in which units are selected because they have characteristics that you need in your sample. In other words, units are selected "on purpose" in purposive sampling. Also called judgmental sampling, this sampling method relies on the researcher's judgment when identifying and selecting the individuals, cases, or events that can provide the best information to achieve the study's objectives. Purposive sampling is common in qualitative research and mixed methods research. It is particularly useful if you need to find information-rich cases or make the most out of limited resources" (Nikolopoulou, 2022).

#### Research Instrument

The research study utilized two sets of questionnaires from Win and Nwe (2020) entitled "Attitude Scale for Student Teachers towards Teaching Profession" and "Professional Qualification Scale for Pre-Service Teachers" by Yengin Sarpkaya and Altun (2021).

#### Data Gathering Procedures

With the objectives posed in the present study, the data was gathered from the respondents following several steps: A request for permission asking the target respondents was given to the identified students. Upon consent of the purposely identified respondents, a consent form was issued to each of the participants to secure voluntary participation. Moreover, in the actual conduct of the survey questionnaire and other data gathering process, the informed consent document was explained to the respondents informing their rights in the participation of the research survey. Afterwards, the questionnaires were retrieved immediately and with the possession of the researchers to secure the confidentiality of respondents' responses. After the retrieval, coding, tabulation, statistical treatment and analysis was conducted to answer the problem of the study.

#### Ethical Consideration

In order to maintain the integrity, validity and ethical aspect of the research process, the administration of the survey questionnaires to the respondents was through an informed consent form and the willingness to participate and engage in the conduct of this research. The respondents were informed that all data to be collected are to be treated fairly and be used solely for research purposes. Moreover, to ensure the safety and rights of the possible participants, informed consent, voluntary participation, rights of participants, anonymity, and confidentiality will be an utmost consideration (Chigona et al., 2010).

#### Analysis of Data

To answer all the problems presented in this research endeavor, descriptive statistics was performed. To measure the significant relationship of the different variables, Pearson's Product-moment Correlation was computed. All data was analyzed based on an equal frequency distribution with 1.79 or 1.8



equal intervals. Lastly, all quantitative data was statistically treated using the SPSS statistical software.

## RESULTS AND DISCUSSION

This section presents the data, analyses and interpretation of the results of this study. This study dealt with the attitude towards the teaching profession and the professional qualification as perceived by the BEED students enrolled in the Teaching Multi-Grade Classes course.

**Table. 1**

Mean Scores of Responses of the Prospective Teachers' Attitudes Towards Teaching and the Perceived Professional Qualifications

No.	Variables	Mean	Interpretation
1	Attitude Towards Teaching Profession	2.89	Agree
2	Perceived Professional Qualifications	4.81	Very High

Table 1 presents the mean score of the responses on attitude towards the teaching profession that was 2.89 interpreted as "agree". According to the results, it can be interpreted that the BEED students enrolled in the teaching multi grade classes attitudes towards the teaching profession was satisfactory with the identified grand mean of 2.89 which is interpreted as "agree". Thus, the attitude of the respondents is satisfactory.

This implies that the attitude of the respondents towards the teaching profession is satisfactory as far as their perception in the multigrade classes. Further, based on the revealed results, such interpretation can be associated to how the respondents would somehow perceive their interest in teaching multi-grade classes.

Moreover, it revealed that the BEED students enrolled in teaching multi grade classes had a "very high" level of professional qualification, with a grand mean score of 4.81. This suggests that the prospective teachers have a good

understanding of the skills and competencies required for effective teaching in a multi-grade classroom setting.

Furthermore, this indicates that the prospective teachers have a strong awareness of the importance of individual differences and the need to utilize available resources for the development of students. The study further identified several factors that are significantly associated with professional qualification. Age and teaching experience were found to have a significant impact on the professional qualification of prospective teachers. This highlights the importance of providing more practical training opportunities and incorporating more relevant and updated curricula in the teacher education program to enhance the professional competence of prospective teachers.

**Table 2**

Relationship between Attitudes towards Teaching Profession and Professional Qualification

Variable 1	Variable 2	Correlational Coefficient	Interpretation	P-value	Interpretation
Attitudes towards Teaching Profession	Professional Qualification	-.099	Negative Correlation	.571	Not Significant

Table 2 showed that there was a negative correlation between attitudes towards teaching profession and professional qualification, with a correlational coefficient of -.099. However, this correlation was not significant (p .571).

The finding of a negative correlation between attitudes towards teaching profession and professional qualification is surprising, as one would expect a positive relationship between the two variables. It is possible that this negative correlation is due to the fact that individuals with high levels of professional qualification may have become disillusioned with the teaching profession, leading to more negative attitudes towards it. Alternatively, individuals with more positive attitudes towards the teaching profession may be more likely to enter the profession with lower levels of professional qualification.

Overall, these findings suggest that there may be a complex relationship between attitudes towards teaching profession and professional qualification. It is also important

for teacher education programs to consider how they can foster positive attitudes towards the teaching profession while also promoting high levels of professional qualification among their graduates.

## CONCLUSIONS

The study revealed that the BEED students enrolled in teaching the multi grade classes had agreeable attitude towards the teaching profession and a very high level of professional qualification. However, there was no significant correlation found between these two variables. The results suggest that there may be a complex relationship between attitudes towards teaching profession and professional qualification that requires further investigation. The study also highlights the importance of providing practical training opportunities and relevant curricula to enhance the professional competence of prospective teachers. Overall, the findings can be used to inform teacher education programs and policy makers to better



prepare and support future teachers in multi-grade classroom settings.

## RECOMMENDATIONS

1. Encourage more practical training opportunities: The study highlights the importance of providing more practical training opportunities for prospective teachers to enhance their professional competence. Teacher education programs should consider incorporating more relevant and updated curricula to better equip their graduates.
2. Foster positive attitudes towards the teaching profession: While the study found that the attitudes of BEED students towards the teaching profession were agreeable or satisfactory, it is important for teacher education programs to continue to foster positive attitudes towards the profession to promote a culture of excellence and commitment among educators.
3. Consider the impact of age and teaching experience on professional qualification: The study found that age and teaching experience significantly impact the professional qualification of prospective teachers. Teacher education programs should consider tailoring their training programs to better address the needs of different age groups and experience levels.
4. Further research: The study revealed a negative correlation between attitudes towards teaching profession and professional qualification, but the relationship was not significant. Further research with a larger sample size and a more diverse group of participants is needed to better understand this relationship.
5. Utilize available resources for student development: The study also revealed that prospective teachers have a strong awareness of the importance of individual differences and the need to utilize available resources for the development of students. Teacher education programs should continue to emphasize the importance of utilizing available resources and tailoring instruction to meet the diverse needs of students in multi-grade classroom settings

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## SPINAL MUSCULAR ATROPHY CLINICAL FEATURES, CLASSIFICATION, NATURAL HISTORY, GENETICS, DIAGNOSIS, COMPLICATIONS AND TREATMENT OF THE DISEASE

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### ABSTRACT

**Introduction:** Spinal muscular atrophy (SMA) is a complex neuromuscular disorder, it is the most usual autosomal recessively inherited lethal neuromuscular disease in pediatrics, it presents a defective alteration in the survival motor neuron 1 (SMN1) gene. Spinal muscular atrophy clinically shows progressive weakness of skeletal and respiratory muscles. In recent years, drugs with encouraging results from phase II and III clinical trials have been presented.

**Objective:** to detail current information related to spinal muscular atrophy, clinical features, classification, natural history, genetics, diagnosis, complications and treatment of the disease.

**Methodology:** a total of 40 articles were analyzed in this review, including review and original articles, as well as clinical cases, of which 31 bibliographies were used because the other articles were not relevant to this study. The sources of information were PubMed, Google Scholar and Cochrane; the terms used to search for information in Spanish, Portuguese and English were: spinal muscular atrophy, Spinal Muscular Atrophy, spinal muscular atrophy and spinal muscular atrophy.

**Results:** About 95 % of the occurrences of spinal muscular atrophy are generated by homozygous deletions. Individuals with 5q mutation make up 95% of cases of spinal muscular atrophy and the remaining 5% are generated by mutations in 5q1-5. Targeted treatments may prevent or delay the progression of some symptoms of spinal muscular atrophy.

**Conclusions:** Spinal muscular atrophy (SMA) is an autosomal recessive neuromuscular disease characterized by muscle atrophy and weakness resulting from irreversible loss and progressive degeneration of the brainstem nuclei and anterior horn cells in the spinal cord (lower motor neurons). Clinically it presents with symmetrical proximal limb weakness that also impacts the axial muscles, intercostal and bulbar musculature and is progressive, and the classification protocol is important in genetics, as well as providing prognostic and clinical information. The natural history of the disease is variable and complicated. It is made by demonstrating a history of proximal muscle weakness, motor difficulties or regression, diminished or absent deep tendon reflexes. Among the most frequent complications in unsupported individuals are those previously mentioned such as poor weight gain with growth retardation, scoliosis, restrictive lung disease, joint contractures and sleep difficulties. In terms of treatment, several different compounds have been investigated in recent years, focused on increasing muscle strength and function. Proactive supportive treatment involving a multidisciplinary team is paramount to decrease the severity of symptoms.

**KEY WORDS:** muscle atrophy, spine, spinal, spinal cord, motor neuron.



## INTRODUCTION

Spinal muscular atrophy (SMA) is a complex neuromuscular disorder, it is the most common autosomal recessive lethal neuromuscular disease in pediatrics, it presents a defective alteration in the survival gene of motor neuron 1 (SMN1), located in chromosome 5 (5q13.2) that generates continuous impairment of motor neurons of the brain stem and medullary anterior horn which results in weakness and progressive symmetrical muscle atrophy. The severity of this condition will depend on the age of onset. Some authors show a variable incidence of this disease between 1 in 6000 live births and 1 in 11000 live births(1,2).

On chromosome 5 there are 2 SMN genes. The first, SMN1 gene generates SMN protein in large quantities and is necessary to maintain the normal function of medullary motor neurons. The second, SMN2 gene generates approximately 10% of all SMN proteins, since it presents a skipping of exon 7 (skipping), which is essential for the development of this protein. The most severe subtype is SMN1 or Werdnig-Hoffmann, which accounts for more than 60% of the universal types of spinal atrophy, Dubowitz disease or SMN2 accounts for about 20%, Kugelberg-Wellander disease or SMN3 for about 10% and SMN4 or the adult form of the disease has the lowest incidence in relation to the previous cases. Individuals with 5q mutation make up 95% of cases of spinal muscular atrophy and the remaining 5% are generated by mutations in 5q1-5(2).

Spinal muscular atrophy clinically shows progressive weakness of skeletal and respiratory muscles. There is no cure for SMA, however, understanding the molecular genetics of the disease has led to the development of preclinical models and several potential therapeutic approaches. In recent years, drugs with encouraging results from phase II and III clinical trials have been presented(3,4).

## METHODOLOGY

A total of 40 articles were analyzed in this review, including review and original articles, as well as cases and clinical trials, of which 31 bibliographies were used because the information collected was not of sufficient importance to be included in this study. The sources of information were Cochrane, PubMed and Google Scholar; the terms used to search for information in Spanish, Portuguese and English were: spinal muscular atrophy, Spinal Muscular Atrophy, spinal muscular atrophy and spinal muscular atrophy.

The choice of bibliography exposes elements related to spinal muscular atrophy, clinical characteristics, classification, natural history, genetics, diagnosis, complications and treatment of the disease.

## DEVELOPMENT

### Clinical Features

Spinal muscular atrophy (SMA) is an autosomal recessive neuromuscular disease characterized by muscle atrophy and weakness resulting from irreversible loss and progressive degeneration of brainstem nuclei and anterior horn cells in the spinal cord (lower motor neurons). The onset of weakness can be at different times of life, both before birth and in adulthood. Clinically, it presents with symmetrical weakness of the proximal extremities that also impacts the axial muscles, intercostal and bulbar musculature, as well as being progressive. Prior to the knowledge of the genetic basis of spinal muscular atrophy, it was classified into clinical subtypes, depending on the maximum motor function achieved. Some common complications triggered by the clinical presentation of patients with SMA are restrictive lung disease, scoliosis, poor weight gain with growth retardation and joint contractures; however, current therapeutic options may modify the natural history of the disease(4-6).

### Classification

The classification system of the different phenotypes found was made in an International Spinal Muscular Atrophy Consortium in 1991, in which three types of SMA are highlighted according to the highest level of motor function and the years of onset of the disease. Subsequently, the third type was modified by years of onset and type 4 was increased to include adult-onset cases, in addition to type 0, which includes patients with prenatal onset and death within weeks. This classification protocol continues to be important because of the genetic epoch, in addition to providing convenient prognostic and clinical information; however, approximately 25% of affected individuals do not benefit from a precise classification(4,7,8).

### Spinal Muscular Atrophy Type 0.

It encompasses newborns with respiratory distress at birth, severe weakness and hypotonia with a history of reduced intrauterine fetal movements. Weakness begins before birth. Infants may manifest atrial septal defect, areflexia, joint contractures and facial diplegia. Respiratory failure is an early warning sign. Most of those affected do not manage to live more than 6 months. At the moment there is no clear evidence on patients with spinal muscular atrophy type 0 treated with gene therapy or the antisense oligonucleotide called nusinersen which increases the amount of complete SMN protein produced by the SMN2 gene, optimizing the survival of neurons(4,6,9,10).

### Spinal Muscular Atrophy Type 1.

Also called Werdnig-Hoffman disease, it encompasses patients with marked weakness and regression of motor development prior to six months of age, although usually showing at 2.5 months of age. Infants attain head control and the ability to roll, but these abilities disappear early. As for the ability to sit up, those children affected with spinal atrophy type 1 usually fail to do so, especially those with only supportive care.



Profound hypotonia may be seen as a "frog-legged" pose when lying down, coupled with poor or absent head control. Notable clinical features include:

- Proximal symmetrical muscle weakness.
- Lack of motor development with regression of motor function.
- Decreased or absent deep tendon reflexes.
- Poor muscle tone.

Mild contractures may also be found in the knees and sporadically in the elbows.

The fragility of the intercostal muscles, with apparent preservation of the diaphragm, generates a bell-shaped thorax accompanied by a paradoxical respiratory pattern or abdominal breathing. The diaphragm is not altered until late in the course of the disease.

Infants with type 1 muscular atrophy have weakness of the tongue and swallowing; tongue twitching is present in most, but not all, infants.

Facial weakness develops although the affected muscles are relatively intact in the initial manifestation. Bulbar weakness is present in the neonatal period or during the first months. As the tongue and pharyngeal muscles become weaker, affected infants remain at risk for aspiration as they often have difficulty swallowing or sucking, leading to growth retardation.

Infants with spinal muscular atrophy type 1 mostly present with respiratory failure before the age of 2 years. Cognition in these infants is normal so they are usually alert and attentive at diagnosis. Infants may develop severe symptomatic bradycardia. Some studies have shown an average survival of 24 months; in contrast, more current trials have shown an average survival to death of 8 to 13.5 months. With proactive attention to nutritional and respiratory support, survival is increasing. New therapies are modifying the natural history of spinal muscular atrophy type 1, especially if therapy is started prior to the onset of clinical manifestations(4,6,11-13).

### Spinal Muscular Atrophy Type 2

Most cases present between six and 12 months of age; however, the average age of symptom presentation is 8.3 months. Inadequate muscle tone may be noticeable in the first few months of life or at birth, however, individuals with SMA 2 may reach motor milestones slowly up to five years of age. Children with SMA type 2 usually sit up unaided at some point in their development, but are unable to walk independently. Those affected later show a slow reduction in motor function, with the competence to sit up fading away by mid-adolescence on average. This type of SMA has the propensity to show as progressive weakness of the proximal part of the legs being greater in comparison with the weakness of the arms. On physical examination there is evidence of areflexia and

hypotonia. Hand tremor is frequent. Deep tendon reflexes are reduced or absent.

Most of the comorbidities presented in this group of patients correlate with complications in bone and joint development such as muscle weakness, scoliosis, jaw ankylosis and joint contractures. The conjugation of intercostal muscle weakness and scoliosis can generate a remarkable restrictive lung disease, which is related to morbidity and mortality in these patients. In affected children, cognition is normal and the development of cardiac abnormalities is infrequent. Standing sufficiency is largely interrelated with improved pulmonary performance and long-term survival. With the advent of new therapies it is possible that the natural history of the disease may improve(4,6,14).

### Spinal Muscular Atrophy Type 3

Called Kugelberg-Welander disease, children and adults with this type of spinal muscular atrophy are able to walk unaided at some point in their lives. It usually presents after 18 months of age, the average age of onset is 39 months  $\pm$  32.6 months. The lower limbs are severely affected compared to the upper limbs. The fragility of the proximal musculature of the lower extremities can cause habitual falls, difficulty to go up or down stairs, this fragility causes the need to use wheelchairs by the patients. Fatigue causes a marked impairment of function and quality of life.

Generally, patients with Kugelberg-Welander disease who have been managed with supportive care alone will show improvement in motor function around the age of six years, and then experience a progressive reduction in functional abilities until around puberty. Puberty may generally be associated with an earlier decline in function. People with SMA 3 have the ability to walk, however, most of those affected will lose this ability over time. If clinical onset is before the age of three years, incompetence of ambulation sometimes occurs in the second decade. However, when clinical onset is between 3 and 12 years of age, gait incompetence usually occurs in the fourth decade of life. Compared to type 2, these patients commonly do not have the comorbidities of scoliosis and usually show little or no respiratory muscle weakness. Cognitive and cardiac functions are normal, and life expectancy is not altered in this group. With the advent of new treatments it is possible that the natural history of the disease may improve(4,6,8,15).

### Spinal Muscular Atrophy Type 4

This type is the least frequent form of SMA and is usually seen in less than 5% of individuals with SMA. Typically, individuals in this category show muscle weakness in the second or third decade of life, although there are cases of juvenile onset. It has a specific sequence of muscle involvement, with weakness that greatly impairs the deltoids, triceps and quadriceps. They may also present loss of patellar reflexes, maintaining deep tendon reflexes in the upper extremities and Achilles tendon. Hand



tremor is occasionally observed. Cognitive and cardiac skills are normal. With supportive care alone, the results are similar to those of SMA 3, but less severe, and gait impairment usually occurs after the fifth decade of life. Life expectancy is normal(4,6,11,16).

### Natural History

The natural history of the disease is variable and complicated. Infants with spinal muscular atrophy type 1 never manage to sit up independently. Children with spinal muscular atrophy type 2 are able to sit up at some time during infancy, however they usually do not walk independently. Adults and children with spinal muscular atrophy type 3 usually reach autonomous walking at some interval in their childhood(4).

### Genetics

About 95% of the occurrences of spinal muscular atrophy are generated by homozygous deletions. A smaller number occur due to point mutations in the SMN1 gene on the long arm of chromosome 5 "5q-SMA"; however, SMA mutations in other genes can also be the origin of "non-5q-SMA". Disease-causing alterations in SMN1 prevent the manufacture of functional SMN protein from this gene. The extremely variable phenotypic range of SMA is especially attributable to variable copy numbers of the neighboring SMN2 gene. This gene is virtually analogous to SMN1 except for a few nucleotides and is of no significance in healthy individuals. A single nucleotide move of SMN2 results in the predominant skipping of exon 7 and produces an unstable protein. In individuals with spinal muscular atrophy, SMN2 can generate minute amounts of full-length, fully functional SMN protein, so high SMN2 copy number is associated with milder phenotypes(17-23).

### Diagnosis

It is made by demonstrating a history of proximal muscle weakness, motor difficulties or regression, diminished or missing deep tendon reflexes, certainty of motor unit disease, as well as through the recognition of pathogenic bi-allelic variants in SMN1 in molecular genetics, or by demonstrating the increase in SMN2 copy number(6).

### Complications

Among the most frequent complications in individuals who do not receive support are those previously mentioned, such as poor weight gain with growth retardation, scoliosis, restrictive lung disease, joint contractures and difficulties in falling asleep.

**Nutrition-gastrointestinal:** bulbar dysfunction is universal in people with SMA 1, this becomes a difficult inconvenience for people with SMA 2 and a very late complication in the course of the disease for people with SMA 3. Some of the alterations of the gastrointestinal system that occur are delayed gastric emptying, constipation and gastroesophageal reflux with high probability of death by aspiration. For growth retardation, a gastrostomy tube may be placed, depending on the patient's

needs. Individuals with SMA 2 and 3 who do not walk are at increased risk of obesity.

**Respiratory:** Individuals with SMA 1 and 2 and sporadically type 3 who have supportive therapy alone have a progressive decrease in lung function due to a mixture of reduced chest wall compliance, weak respiratory muscles, decreased lung compliance and decreased alveolar multiplication. Respiratory failure is the most frequent cause of death in SMA 1 and 2. Reduced respiratory capacity leads to impaired cough with inadequate excretion of mucus from the lower airways, accompanied by hypoventilation during sleep and recurrent pneumonia. Airway clearance techniques and BiPAP or other noninvasive ventilation techniques are frequently used in respiratory failure in people with SMA to try to improve their capacity.

**Orthopedic:** Scoliosis, hip dislocation and joint contractures are frequently seen in individuals with spinal muscular atrophy. Scoliosis is a major issue in a large proportion of those affected with SMA 2 and in about 50% of individuals with SMA 3. With support alone, nearly 50% of children with the disease, primarily those who are unable to ambulate, create spinal curvatures greater than 50 degrees by age 10, usually requiring a surgical approach. If the development of the disease continues, those affected may develop thoracic kyphosis. This progressive scoliosis alters pulmonary competence and in complex cases can lead to reduced cardiac output. The use of a titanium vertical expandable prosthetic rib is a potential treatment for complicated scoliosis.

**Metabolic:** Prolonged fasting should be avoided, because a possible unanswered complication of SMA is severe metabolic acidosis plus dicarboxylic aciduria and low serum carnitine pools in the intervening stages or prolonged fasting. Whether the metabolic abnormalities are primary or consequent to the underlying disturbance in SMA is not known for certain at this time. Although the cause of these metabolic disturbances remains obscure at this time, one reference reports that aberrant glucose metabolism may play an important role(6).

### Treatment

Within the treatment of the clinical manifestations presented by patients with spinal muscular atrophy there are therapies that are exclusively directed to the underlying action of the ailment among these 2 drugs stand out:

- Nusinersen, an antisense oligonucleotide, can be used for the therapy of all types of SMA.
- Onasemnogene abeparvovec-xioi, a gene replacement therapy for the management of SMA type 1.

These targeted treatments may prevent the formation of symptoms or delay them. If started prior to the onset of symptoms, the efficacy of the therapy is increased, however, it is not yet clear what long-term effect they may have, or whether different phenotypes will appear in treated patients.





When nutritional disorders or dysphagia occur, early gastrostomy tube placement may be considered, in addition to treatment for gastroesophageal reflux disease and chronic constipation. Formal review and follow-up by a pulmonary specialist familiar with the disease is mandatory. With worsening respiratory symptoms, tracheostomy or noninvasive respiratory support may be considered. Surgical repair of scoliosis should be chosen depending on the progression of the curvature, pulmonary function and bone maturity(6).

Within the perspective of symptom-free treatment, it can be said that being a monogenetic neuromuscular disease, the final phenotypic range is labyrinthine and SMA is most of the time perceived as a systemic disease. Therefore, the care of patients with SMA needs a correct interdisciplinary management of nutritional-gastroenterological, respiratory-ventilatory, orthopedic-postural and psychosocial problems. This proactive multidisciplinary supportive therapy is extremely important to reduce the severity of symptoms, especially in the most severe cases. The activation of standards of care is highly mutable and is usually affected by socioeconomic factors, availability of regional assets and cultural views. In recent times, there are new updates of useful recommendations for the diagnosis of spinal muscular atrophy, as well as for the best patient care(1,17,24-26).

Within the therapeutic perspective and drug treatment, there are several studies of different compounds in recent years among which are some with approaches to increase muscle strength and function through:

- Hyperacetylating agents such as phenylbutyrate or valproic acid.
- Anabolic agents such as thyrotropin-releasing hormone, albuterol and growth hormone.
- Neuroprotective agents such as olesoxime, gabapentin and riluzole.

The actual therapeutic developments can be subclassified into treatments whose mission is to modify the SMN2 connection, to substitute the SMN1 gene or to regulate the increase of muscle growth(1,17,27-31).

## CONCLUSIONS

Spinal muscular atrophy (SMA) is an autosomal recessive neuromuscular disease characterized by atrophy and muscle weakness resulting from irreversible loss and progressive degeneration of the brainstem nuclei and anterior horn cells in the spinal cord (lower motor neurons). Clinically it presents with symmetrical proximal limb weakness that also impacts the axial muscles, intercostal and bulbar musculature and is progressive, and the classification protocol is important in genetics, as well as providing prognostic and clinical information. The natural history of the disease is variable and complicated. About 95% of the occurrences of spinal muscular atrophy are generated by homozygous deletions. This is done by demonstrating a history of proximal muscle weakness, motor difficulties or regression, diminished or missing deep tendon reflexes. Among the most

frequent complications in individuals who do not receive support are those previously mentioned such as poor weight gain with growth retardation, scoliosis, restrictive lung disease, joint contractures and difficulties in falling asleep. In terms of treatment, several different compounds have been investigated in recent years, focused on increasing muscle strength and function. Proactive supportive treatment involving a multidisciplinary team is paramount to decrease the severity of symptoms.

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# DELIVERING EXCELLENCE: ENHANCING SERVICE QUALITY FOR CUSTOMER SATISFACTION IN EVENT MANAGEMENT BUSINESS IN TAMILNADU

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## ABSTRACT

The study aims to identify the factors influencing service quality evaluation in the event management business. It is identified from the customer's point of view. How do customers decide the service quality of event management business, and what do they expect from service providers to the events? Each factor influences the service quality and is defined to match the service environment. Respondents were asked to rate these factors. After analysis, it has been concluded that each attribute strongly influences the service quality and customers' preference for service planners for future services in their families. The study also suggested tips to formulate strategies for service planner business organisations in the area of study. This study can be used to understand customer satisfaction and the service planner business. Since event management is a budding industry with much scope for research and business, one can use the study for research and business purposes based on their need.

**KEYWORDS:** Service Quality, Event Management, Customer Satisfaction, Loyalty, Customer Delight

## INTRODUCTION

Customers' changing expectations and preferences drive the latest trends in service quality. Today's customers expect personalised, Omnichannel support, seamless Automation, Proactive support, Employee empowerment and convenient experiences across all touchpoints, whether online or offline. The latest trends in service quality are focused on delivering personalised, seamless, and convenient experiences that meet customers' evolving needs and expectations. By adopting these trends, businesses can improve customer satisfaction, loyalty, and advocacy and differentiate themselves from competitors. The trend in CRM in event management is the increased personalisation of customer experiences. Event organisers now leverage data to create customised experiences catering to each customer's unique preferences. Event organisers are using technology to enhance the overall customer experience. The latest scenario in CRM in event management also involves a shift towards a more customer-centric approach. Event organisers now focus on creating memorable customer experiences rather than just delivering products or services. By focusing on customer experience, event organisers can increase customer loyalty and advocacy and generate positive word-of-mouth marketing. To achieve this, event organisers proactively and personally use data to identify and address customer pain points proactively and personally. By proactively addressing customer pain points, event organisers can prevent negative feedback and enhance customer loyalty.

## CUSTOMER SATISFACTION

Customer satisfaction is critical to event management as it directly impacts the event's success. Customers who are satisfied with their experience are likelier to attend future events, recommend the event to others, and even become brand advocates. Therefore, event organisers must prioritise customer satisfaction to ensure the long-term success of their events. One of the key factors influencing customer satisfaction in event management is the quality of the event itself. Customers expect a high-quality event that meets their needs and exceeds their expectations. This includes factors such as the quality of the speakers, the relevance of the content, the quality of the venue, and the overall atmosphere of the event. Personalisation is also becoming increasingly important in event management, as customers expect experiences that cater to their unique preferences and needs. This includes personalised agendas, customised recommendations, and incentives that enhance their overall experience.

## LITERATURE REVIEW

A.Parasuraman, V.A. Zeithaml and L.L. Berry proposed the GAP model of service quality in 1985. In this model, the author describes the gap between customer expectation and perception as customers' perception towards services provided by the organisation is a function of service quality. This model tells that poor service delivery is arising due to the gap in the service delivery process. In 1985, they developed a SERVQUAL scale with ten service quality dimensions.



Armstrong et al. (1997) investigated the impact of service quality on attendee loyalty in the context of business events. The study found that service quality was positively related to attendee loyalty and that factors such as Empathy, Reliability, and tangibles (e.g., physical facilities and equipment) significantly shaped attendee perceptions of service quality.

Zhu et al. (2002) studied the service supplier firm using information technology to create value-added services and reduce service costs. This model also investigates various factors affecting customers' perception of IT-based service. To test this model, the author conducted a study, and the findings state that IT-enabled services significantly affect various dimensions of the SERVQUAL model and indirectly affect the level of satisfaction of customers.

Evangelos et al. (2006) analysed the relationship between quality of services and customer loyalty by using customer satisfaction as a mediating variable in the insurance sector. For the study, a SERVQUAL-type scale, namely GIQUAL, was identified to collect primary information from the respondents. A sample of 519 respondents was selected on a random basis. The researcher applies Exploratory and Confirmatory factor techniques to obtain and confirm the factors for measuring service quality in the insurance sector. CFA results state that Tangibility does not affect customer satisfaction.

Nguyen et al. (2020) explored the impact of service quality on attendee loyalty in the context of music festivals. The study found that service quality positively related to attendee loyalty and that factors such as Empathy, Reliability, and Assurance significantly shaped the perceptions of service quality.

Sigala et al. (2021) investigated the relationship between service quality and customer satisfaction in the context of sports events. The study found that service quality was positively related to customer satisfaction and that factors such as Responsiveness, Empathy, and Assurance significantly shaped customer perceptions of service quality.

Singh et al. (2023) explored the latest trends in service quality in event management. The review identified several key

trends, including the importance of personalisation, the use of technology to enhance the customer experience, and the need for proactive and responsive customer service.

The following are the factors influencing SERVQUAL  
*Tangibility: Appearance of physical facilities, i.e. equipment, written material etc.*

*Reliability: Capability to execute service perfectly*

*Responsiveness: Enthusiasm to assist customers*

*Assurance: Knowledge & courtesy of employees*

*Empathy: Pay individual attention and care to customers*

### OBJECTIVES OF THE STUDY

1. To study the influence of Tangibility on customer satisfaction of Event Management Services.
2. To study the influence of Responsiveness on customer satisfaction of Event Management Services.
3. To study the influence of Reliability on customer satisfaction of Event Management Services.
4. To study the influence of Assurance on customer satisfaction of Event Management Services.
5. To study the influence of Empathy on customer satisfaction of Event Management Services.

### HYPOTHESES OF THE STUDY

1. H01: Tangibility of services does not significantly influence customer satisfaction in ABC event management services.
2. H02: Responsiveness of services does not significantly influence customer satisfaction in ABC event management services.
3. H03: Service reliability does not significantly influence customer satisfaction in ABC event management services.
4. H04: Assurance of services does not significantly influence customer satisfaction in ABC event management services.
5. H05: Empathy for services does not significantly influence customer satisfaction in ABC event management services.

## RESEARCH METHODOLOGY

**Table 1: Testing Hypothesis**

Hypothesis	Value of R-Square	P-Value	Status
The Tangibility of services does not significantly influence customer satisfaction in ABC event management services.	0.271	***	Rejected
Responsiveness of services does not significantly influence customer satisfaction in ABC event management services.	0.213	***	Rejected
The Reliability of services does not significantly influence customer satisfaction in ABC event management services.	0.269	***	Rejected
Assurance of services does not significantly influence customer satisfaction in ABC event management services.	0.197	***	Rejected
Empathy for services does not significantly influence customer satisfaction in ABC event management services.	0.143	***	Rejected



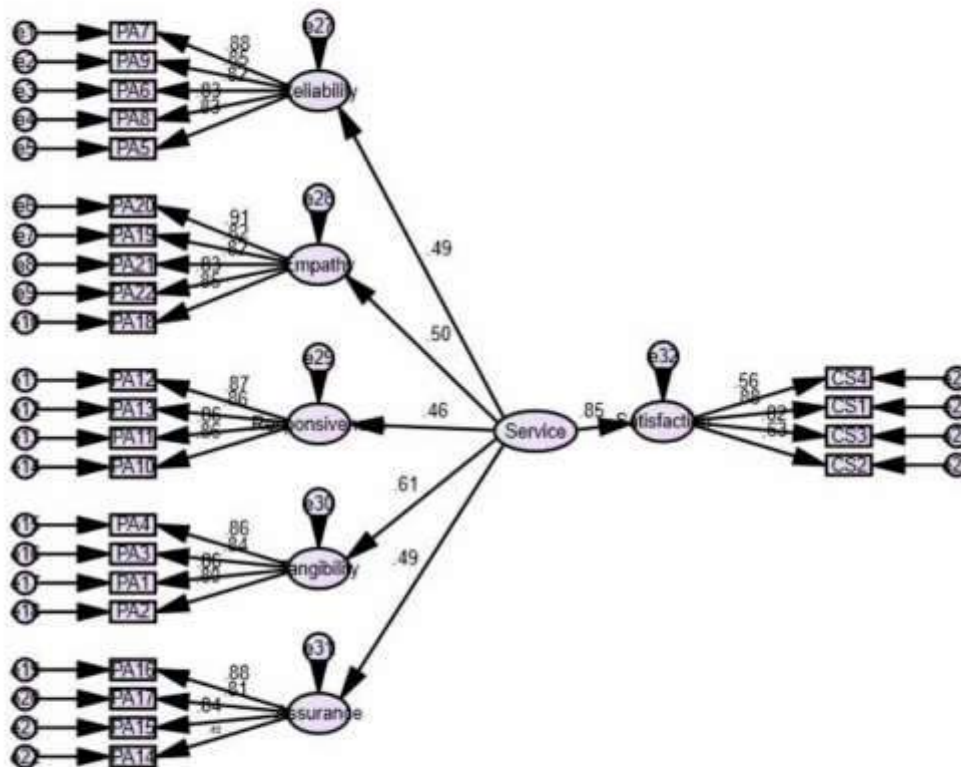
**Table 2: Comparison of Correlation between Dimensions of Service Quality and Customer Satisfaction**

Variables	Assurance	Reliability	Empathy	Responsiveness	Tangibility	Satisfaction
Assurance	0.842					
Reliability	0.237	0.839				
Empathy	0.213	0.294	0.839			
Responsiveness	0.275	0.221	0.239	0.872		
Tangibility	0.317	0.289	0.23	0.315	0.841	
Satisfaction	0.477	0.46	0.41	0.534	0.562	0.766

**Table 3: A path analysis**

CUST SATISFACTION	Exogenous Variable	Path Coefficient	Regression Weight	Standard Error	Critical Ratio	P-Value	R- Square 48.30%	
	<---	Reliability	0.213	0.207	0.03	6.885		***
	<---	Assurance	0.197	0.176	0.028	6.369		***
	<---	Responsiveness	0.269	0.213	0.024	8.695		***
	<---	Empathy	0.143	0.141	0.03	4.695		***
	<---	Tangibility	0.271	0.253	0.029	8.599		***

**Fig1: Path analysis using SEM model**





The output of the path analysis is customer satisfaction which can be taken as an endogenous variable, and five dimensions of service quality are taken as exogenous variables. The structural equation modelling technique analyses the relationship between these variables. The value of the standardised regression weight of each variable ranges from 0.19 to 0.27, revealing a significant dependency of customer satisfaction on various service quality dimensions. The path coefficient (Standardize Regression Weight) estimates reveal that customer satisfaction is highly dependent on the Tangibility dimension ( $R^2 = 0.271$ ), Responsiveness dimension ( $R^2 = 0.269$ ) and Reliability dimension ( $R^2 = 0.213$ ). Customer satisfaction also significantly depends on the Assurance dimension ( $R^2 = 0.197$ ) and Empathy dimension ( $R^2 = 0.143$ ). The path coefficient (Standardize Regression Weight) of the tangibility dimension has the highest value, followed by the Responsiveness, Reliability, assurance and empathy dimension has the lowest value. It explains that customer satisfaction (Endogenous Variable) is explained by 21.3% by the reliability dimension, 19.7% by the assurance dimension, 26.9% by the responsiveness dimension, 14.3% by the empathy dimension and 27.1% by empathy dimension explained by the tangibility dimension of service quality in ABC event management services. So, in the context of the present study, the findings of path analysis show that all five service quality factors are accepted and significantly affect customer satisfaction. Customer satisfaction mostly depends on Tangibility and Responsiveness dimensions among all service quality factors. Overall, all the dimensions affect customer satisfaction in a positive direction. The R-Square value of the model shows that all these five service quality factors together explained 48.3% of customer satisfaction. In banking, customer satisfaction is a term that is not only explained by service quality but also by some other factors. So, the researcher concludes that the studied model of service quality explained 48.3% of customer satisfaction.

## CONCLUSION

Based on the research, it is revealed that SERVQUAL is an effective tool for measuring service quality in the event management industry. It allows event management businesses to evaluate their quality of services and identify improvement areas. SERVQUAL is based on five dimensions of service quality: Reliability, Assurance, tangibles, Empathy, and Responsiveness. These dimensions cover various aspects of service delivery, including the competence and courtesy of staff, the appearance and functionality of facilities, and the promptness and accuracy of service delivery. Using SERVQUAL, event management businesses can gather data on customer expectations and perceptions of service quality. By comparing these two measures, they can identify gaps in service delivery and take steps to close them. This process enables businesses to enhance their service quality, improve customer satisfaction, and ultimately, increase customer loyalty and revenue.

One of the critical benefits of SERVQUAL is its flexibility. The tool can be customised to suit different businesses' and industries' specific needs and preferences. For event

management businesses, SERVQUAL can be adapted to measure service quality across different events, such as weddings, corporate events, or sports events. This versatility makes SERVQUAL a valuable tool for event management businesses looking to improve service quality. However, it is essential to note that SERVQUAL has some limitations. For instance, it may only capture some aspects of service quality that are important to customers.

Additionally, the tool relies on customers' perceptions of service quality, which may be subjective and influenced by their moods or expectations. As such, event management businesses must use SERVQUAL with other feedback mechanisms, such as customer reviews or surveys, to get a more comprehensive view of service quality. In conclusion, SERVQUAL is a valuable tool for event management businesses to measure and improve service quality. It provides a framework for assessing customer expectations and perceptions of service quality and enables businesses to identify gaps in service delivery. While there are limitations to SERVQUAL, its flexibility and adaptability make it a valuable tool for event management businesses looking to enhance their service quality and customer satisfaction.

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# A TRIVIALY PROPOSED FORMALISM OF MONSTROUS\* WAY OF UNIFICATION OF RELATIVITY AND QUANTUM PHYSICS USING 11– HYPERDIMENSIONAL HYPERCOMPLEX NUMBER SYSTEM UPTO DEKACADINION BASED ON THE ALGEBRAIC NORM OF THE GENERALIZED CAYLEY–DICKSON CONSTRUCTION

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## ABSTRACT

*From 1 to Monocadinion and extending till Dekacadinion a trivial way out is presented for a unified approach of relativity and quantum mechanics in a trivial formulation using the Cayley – Dickson constructions in all the algebraic, modified and generalized forms subject to further research.*

**KEYWORDS:** *Hyperdimensions – Hypercomplex – Zorn Ring – Dekacadinion*

## FORMULATIONS

The Cayley–Dickson construction, starting from the real numbers  $\mathbb{R}$  generates the composition algebras of the complex numbers  $\mathbb{C}$ , the quaternions  $\mathbb{H}$ , the octonions  $\mathbb{O}$  and so on... where the construction itself defines a new algebra as a Cartesian product of an algebra with itself, with multiplication defined in a specific way having an involution known as conjugation.

There can also be the split–complex numbers being ring – isomorphic  $R_{iso}$  resulting in the split–complex approach of Cayley–Dickson as split-quaternions and then the split-octonions where in further terms for all the concerned functions and operators of C-D constructions the symmetry approach can be given as disappearance in below - number wise forms of<sup>[1-5,9,10]</sup>,

1. Losing order
2. Commutativity of multiplication
3. Associativity of multiplication
4. Alternativity
  - a. In the ordering,
    - i. Complex numbers lose the ordering of the reals
    - ii. Quaternions are multiplicative non - commutative
    - iii. Octonions being associative while alternative (for vulnerability conditions)
    - iv. Sedenions non – alternative but power associative with a properly defined lowest degree polynomials

forming –

$$\left\{ \begin{array}{l} 2 \times 2 \text{ real matrices} \Rightarrow \text{split – quaternions for an associative algebra isomorphism} \\ \text{Zorn}(R) \Rightarrow \text{split – octonions for } R_{iso} \text{ formalisms} \end{array} \right. \quad Eq(A)$$

*and so on ...*

The chain takes place in orders of<sup>[4-8]</sup>:

- Complex = Monocadinion ( $2^1 = 2$  dimensions)
- Quaternion = Dicadinion ( $2^2 = 4$  dimensions)
- Octonion = Tricadinion ( $2^3 = 8$  dimensions)
- Sedenion = Tetracadinion ( $2^4 = 16$  dimensions)
- Tringintaduonion = Pentacadinion ( $2^5 = 32$  dimensions)
- Sexagintaquatronion = Hexacadinion ( $2^6 = 64$  dimensions)



- Centumduodetrigintanion = Heptacadinion ( $2^7 = 128$  dimensions)
- Ducentiquinquagintasexion = Octocadinion ( $2^8 = 256$  dimensions)
- Ennecadinion ( $2^9 = 512$  dimensions)
- Dekacadinion ( $2^{10} = 1024$  dimensions)
- Hendekacadinion ( $2^{11} = 2048$  dimensions)
- Dodekacadinion ( $2^{12} = 4096$  dimensions)
- Tridekacadinion ( $2^{13} = 8192$  dimensions)
- ...and so on.

Thus, it is easy to conclude the relativistic and Quantum Physics unification (in a trivial way) of 11 hyperdimension and hypercomplexes taking gravity as 1D, time as 2D, space-time as 4D, magnetism as 8D, electricity as 16D, weak nuclear force as 32D, strong nuclear force as 64D, space-time-light as 1024D while each of the 11 hyperdimensions are not all same size<sup>NOTE</sup>. While further research is needed to justify this.

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NOTE: The 2 – multiplier form is used to double the previous dim through a (trivial) split formalism of the later dim to the former dim by  $/_2$  as depicted for (*numbers in eq(A)*) which would be justified properly via further research.

\*Monster group is not concerned and is not to be confused with these constructions.

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## STYLISTIC PATTERNS OF FOREGROUNDING IN NIYI OSUNDARE'S WORKS

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### ABSTRACT

*The study of style and the language of literature are some of the most traditional applications of linguistics. At the present time, linguistic analysis of literature is one of the most active and creative areas of literary studies. Osundare's interest in innovative style is conveyed in his ardent interest in the use of language. The avalanche of critical responses to his style, and the diverse conflicting stances, as well as the influencing factors of its brilliance, relevance and success in part, necessitated this discourse. Attempt is thus made to sample some of the literary and oral devices the poet employs in his poetry. Osundare has in his own special way imbibed a stylistic feature which is a characteristic of sound employed in most of his poems, hence reducing their complexity. In being engaged in literary stylistic criticism, one may choose to view stylistics as the study of various styles foregrounded in various language uses.*

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### INTRODUCTION

Among the various stylistic theories, foregrounding theory is probably the most common and powerful one in literature. It is very general to the extent that it resists definition. However, many stylisticians have attempted some working definitions. Foregrounding causes the reader "to draw attention from the putative paraphrasal meaning of a message, what is said to focus on the message itself and how it is said" (Fowler, 1998:98). Leech (1969) has applied the concept of foregrounding to poetry. He considers the foregrounded figures as 'linguistic deviation' (57). For him, a linguistic deviation is artistically significant when it communicates something that is intended by the author and it is judged or felt by the reader to be significant. According to him, it is a very general principle of artistic communication that, "a work of art in some way deviates from the norms which we as members of society, have learnt to expect in the medium used" (56). He believes that, what makes poetry is the linguistic deviations the poet manipulates in his poetry, and therefore, linguistic deviation is regarded by him as a means for "poetic creation". Poetic language differs, however from standard language in far more than word-order transformation. Deviation is especially characteristic of poetic language, the poet deviates from expected norms of linguistic expression. In other words, he exercises, in the broadest sense, 'poetic licence'.

Literature, as we know, is made up of words, sounds and images. Hence, apart from the foregrounding of linguistic components, there is also the foregrounding of images. A literary work, for example, a poem, is made up of either "a series of images that support or contradict one another, or a single dominant image", such as the image of the earth in *The Eye of the Earth*, "on which the sequence and structure of the poem depend" (132). A literary work is built up on verbal structures and a critic can scarcely proceed in his study without paying attention to the way in which words are organized.

Deviation, as defined by Short (1996:11), is a linguistic phenomenon and has an important psychological effect on readers. In any literary text, if a part is defiant, it becomes especially noticeable or perceptually prominent. This psychological effect is called foregrounding.

Thus, "foreground" elements in any given text are of vital importance for understanding the message(s) conveyed. The theory of deviation has expanded and attracted varying comments and approaches. Leech (1969) illustrates the manifestation of deviation at different levels of poetic language, namely: syntactic, semantic and phonological. Todorov classifies them into four types, namely: quantitative (deviation in frequency of occurrence), qualitative (deviation from standard grammar); syntagmatic (deviation from a norm present in the text); and paradigmatic (deviation from a norm outside the text). (see Osundare, 27).



Halliday prefers the term “prominence” to deviation and its synonyms. He defines prominence as “a general name for the phenomenon of linguistic highlighting, whereby some feature of the language of a text stands out in some way” (113). Osundare explains that deviation may be extro-normic (unexpected violation of the rules, e.g. ungrammatical formations in language) and intro-normic (expected compliance with the rules of a deviant norm, e.g. the naturalization of those formations within the context of poetic language). In other words, deviation may be norm-breaking as well as norm-making linguistic features.

The problem in style as deviation perspective, according to Osundare, is in a second language situation where the L2 norm is taken to be diatopic “deviation” from the native norm. He sees deviation at this instance as taking on a “negative connotation, evoking a master-servant; right-wrong type of relationship” (29).

Literary language, it has been observed, is characterized by a use of language that violates the rules of the language code. This is what makes it distinct from standard or everyday language. The purpose of this distortion or violation of the standards of ordinary language in literature is, first, to foreground, that is, to give prominence to, or to highlight particular aspects of the linguistic texture of the work in order to generate new or renewed perceptions of the experiences in the text. Second, it is to achieve aesthetic effect. For example, there are violations of the linguistic rules for the purposes of creating lexical, phrasal and grammatical forms recognizable as uniquely poetic.

Foregrounding presupposes the existence of a background. Linguistically speaking, the background is the standard language, or the standard language of narration. Otherwise, it is “the traditional aesthetic canon” defined by Mukarovsky as “the set of firm and static norms into which the structure of a preceding school of poetry has dissolved by deautomatization...” (46). Each background consists of unforegrounded components resisting foregrounding, and are always present in a text. Against the background is the product of a set of rules internalized by native speakers of a language, rules which must be applied in performance according to the intuitive or shared knowledge of its users. Therefore, when a writer deviates from this background by making what G.N Leech calls a

Selection of an item which is not a  
Member of the normal range of choices  
Available at its place in the linguistic chain. (145)

Or, when he “repeatedly makes the same selection” when “there is a choice to be made at different points in the linguistic chain”. On the other hand, Mukarovsky says that “every work of poetry is perceived against the background of a certain tradition”, hence a new trend in poetry is perceived as a distortion of the traditional canon. Foregrounding is not achieved by a chance occurrence of deviant forms. It is not also a matter of quantitative effect. The device by which poetic language achieves its maximum of foregrounding consists in the consistency and systematic character of foregrounding. The consistency appears when there is stability in the foregrounding of a component to deautomatize another component. This eventually will lead to identifying “the component highest in the hierarchy”; in other words, the most foregrounded component “becomes the dominant”. The dominant is that component of the work which sets in motion, and gives direction to the “relationships of all other components”. Consequently, “all other components, foregrounded or not, as well as their interrelationships, are evaluated from the standpoint of the dominant”. Mukarovsky postulates that the function of poetic language consists in foregrounding the utterance. For van Peer and Hakemulder, the term refers to “specific linguistic devices, i.e., deviation and parallelism, that are used in literary texts in a functional and condensed way”. Under their definition, such devices can help to add a specific meaning to the text and provide the reader with aesthetic experience.

Others restricted their definitions to the literary side of the theory. Shen argues that this theory assumes that “poetic language deviates from norms characterized by the ordinary use of language and that this deviation interferes with cognitive principles and processes to make communication possible” (169). Martindale points out two types of foregrounding: deviation and parallelism. Deviation is a poetic license to the writer who is exceptionally allowed to deviate from normal rules and expectations, surprise the reader and give him a beautiful literary experience. Foregrounding in English literature and stylistics has been used with different meanings. Van Peer and Hakemulder have shown that foregrounding in English can refer to a prominent interest that a reader might assign to something in a text during the process of reading. Such prominence is resultant from a special use of some devices located in the text itself.

The problem in style as deviation perspective, according to Osundare, is in a second language situation where the L2 norm is taken to be diatopic “deviation” from the native norm. He sees deviation at this instance as taking on a “negative connotation, evoking a master-servant; right-wrong type of relationship” (29). Deviation is especially characteristic of poetic language, the poet deviates from expected norms of linguistic expression. In other words, he exercises, in the broadest sense, ‘poetic licence’.



In literary texts, on the other hand, foregrounding is structured; it tends to be both systematic and hierarchical. That is, similar features may recur, such as a pattern of assonance or a related group of metaphors, and one set of features may dominate the others (20); a phenomenon that Jakobson termed ‘the dominant’ (41). In everyday language, the primary purpose is communication. To this, Mukarovsky argues that foregrounding structures are normally not involved. But in literature, the purpose of foregrounding is to disrupt such everyday communication. Thus in literature, the act of communication becomes secondary. The primary focus of the reader is on style. To this Mukarovsky affirms:

In poetic language, foregrounding achieves maximum intensity to the extent of pushing communication into the background as the objective of expression and of being used for its own sake; it is not used in the services of communication ... (19).

Foregrounding enables literature to present meaning with an intricacy and complexity that ordinary language does not normally allow. Foregrounding is prominence motivated. It is not difficult to find patterns of prominence in a poem or prose text, regularities in the sounds or words or structures that stand out in some way, or may be brought out by careful reading; and one may often be led in this way towards a new insight, through finding that such prominence contributes to the writer’s total meaning. But unless it does, according to M.A.K Halliday, it will seem to be lacking in motivation; a feature that is brought into prominence will be ‘foregrounded’ only if it relates to the meaning of the text as a whole. In his words, “This relationship is a functional one; if a particular feature of the language contributes, by its prominence, to the total meaning of the work, it does so by virtue of and through the medium of its own value in the language – through the linguistic function from which its meaning is derived” (334). When that function is relevant to our interpretation of the work, the prominence will appear as motivated.

Let us now consider some of the grammatical devices with which Niyi Osundare deviated from the norm of language usage, and with which he foregrounds his message to his audience.

## MORPHOLOGICAL DEVICES

Niyi Osundare employs very few morphological deviational techniques to express his meaning in *Waiting Laughters*. For instance, on page 34, the word ‘wound’ is unusually morphologically truncated, such that the penultimate line of the poem has ‘the wo’ and the last line reads ‘und’. Apart from the fact that the truncation of the word violates the rule of syllabification which forbids the breaking of such monosyllabic words, the process also creates a morphological problem in which the items ‘wo’ and ‘und’ cannot be located among acceptable morphological units. But Osundare most probably reflects the deep phonological import of the cry, emitted from the victim as the axe-man’s axe falls to inflict the wound.

Another instance of the use of deviational morphological devices is seen in the use of the word ‘rune-y’ on page 77 of the text. The line of the poem in which it appears reads:

*Sermons from stones, books from rune-y*

*Woods*

Semantically, ‘rune’ is “a letter of the futhork or ancient Germanic alphabet: a secret, a mystic symbol, sentence, spell, or song: a song, stanza or canto of a Finish poem, esp. of the Kalevala” (*Chambers English Dictionary*, 1287). Normally, the adjectival forms of the word are ‘runed’ or ‘runic’. Hence, Osundare’s use of the Anglo-Saxon suffix ‘y’ tends to call attention to the word. This is more so with the fact that the word is deviationally hyphenated to reflect a separation of the ‘y’ from the root word ‘rune’. This is understood to be reflecting the abnormality of the adjectival ‘runey’. If for instance, the appropriate adjectival form, ‘runed’ or ‘runic’ is used, then we would have:

*Sermons from stones, books from runed*

*woods*

Or

*Sermons from stones, books from runic*

*Woods*

Using any of the above adjectival forms would ruin the easy phonological flow and alter the semantic implication of the line. Thus Osundare uses the Anglo-Saxon ‘y’ to reflect an adjectival form that has convenient phonological quality and that helps to reflect the sense of the woods harbouring some mystic powers that find expression in books. What Osundare is believed to be emphasizing in the line is the difficulty of extracting useful sermons and books from hard stones and mysterious/mystical woods.

Niyi Osundare therefore employs morphological devices as convenient handles for reflecting his intended phonological quality or semantic implication of words.



## SYNTACTIC DEVICES

Generally speaking, Adagbonyin (1996:10), quoting Ofuani, sees Osundare's poetry as "an example in concatenation, tautness and economy achieved through deliberate incompleteness of syntax". This is in the sense that his poetry reflects series of experiences that are linked together through the use of language. But his syntax is both taut and highly compact, and is aimed at achieving economy of space and expression. In *Waiting Laughters*, for instance, the theme of waiting is foregrounded through the linking of the various experiences of endless waiting of the Nigerian man through language. Osundare does this mainly by employing taut and compressed language.

For example, the refrain of the first poem in the collection, "Tonalties. Redolent tonalties", is both taut, highly compressed and is an example of incomplete syntax. Not only is the use of "Tonalties" alone as a phrase in itself an example of incomplete syntax, even the second phrase, "Redolent tonalties", is another incomplete sentence which helps to reinforce the first one. With this regular occurrence of the refrain of incomplete sentences, Osundare is understood to be saying that the experiences he is expressing in his text are just fragrances of the various shades or hues of the bitter experiences of the African man.

Tautness and incompleteness of Osundare's syntax is also reflected in this line that also appears in the first poem of *Waiting Laughters*:

*The rain. The rain*

*The rain is onibanbantiba*  
*The rain is onibanbantiba*  
*The rain which taunts the roof's dusty laughter*  
*In the comedy of February's unsure showers (4)*

The taut and incomplete syntax are conspicuous in the first line above. Clearly, "The rain" is not a sentence, but only a noun phrase. But by putting a full stop after it, and repeating it, Osundare tends to foreground the natural phenomenon. The phenomenon is much more foregrounded by the counterpoint of the second and third lines which help to emphasize and stamp the experience contained in the fourth and fifth lines of the poem above.

Another example of incomplete syntax is the poem on page 69 of Niyi Osundare's *Waiting Laughters*:

*Chuckling jungles*  
*Impertinent tales...*  
*How can a frightened flock*  
*mine the awe*  
*of the hyena's metallic*  
*laughter?*

Here, the tautness and incompleteness of the syntactic structures are also obvious. This is because it is not clear what happens to/in the chuckling jungles, neither do we know what the impertinent tales are about. The sense of the incompleteness is foregrounded by the fact that the first two lines are just noun phrases (NPs). Also, the use of ellipsis at the end of line 2 signifies that something is left unsaid. The rhetorical question which ends the poem in lines 3 to 6 imply that fear is the reason for the suppressed laughters and the sudden termination of the intrusive tales. Thus with the use of taut and incomplete structure, Osundare is able to paint the picture of the Nigerian masses who are so afraid to laugh and talk openly and freely in the midst or in the face of the awe-inspiring metallic laughter of the hyena (the military oppressor).

It is therefore clear that Osundare uses taut, compressed and incomplete structures in his *Waiting Laughters* to achieve economy of space and expression.

## PHONOLOGICAL DEVICES

It is observed that the phonological attribute is very conspicuous in some poems in Osundare's text under study, whereas it is highly suppressed in some other poems in the collection. For example, the phonic or musical elements are so conspicuous in the following portion of the poem on page 22 which extensively uses Yoruba (Ikere) mythology:

*Behold the wonder;*  
*the crown is only a cap!*  
*Orogododo. Orogododo*  
*Orogododo Orogododo*  
*Oba ba ti beyi*  
*Omo d' Orogododo o o o o*



The extensive use of the phonemes // and /əu/ in the latter part of the above extract shows a predominant employment of assonance as a sound element. Assonance is the repetition of identical or similar vowel sounds in stressed syllables in a sequence. Though the fact that the Yoruba vowel sounds in the above example do not have appropriate dots under them poses a problem of identification and differentiation between the two vowel sounds.

Other examples of the use of assonance in the collection are:

*Okerebu kerebu*

*Kerebu kerebu (63, 64)*

*The rain, the rain*

*The rain is onibanbantiba*

*The rain is onibanbantiba*

*The rain which taunts the roof's dusty laughter*

*In the comedy of February's unsure showers*

*The wing is its wing, the lake*

*One liquid song in its fluent concert (4)*

*Bi bi bi bi bi bi bi*

*Bi a a a (65)*

*Omi i lo o, iyanrin lookun rode*

*Omi i lo o, iyanrin lookun rode*

*Aye mo re'de, e emee jemi lo loona ooo (67)*

It is obvious that all of the above are predominantly Yoruba (Ikere) utterances or songs. And the extensive use of the phonic and musical elements tends to reflect the musicality of the Yoruba language and the oral tradition of the African society.

Assonance is by no means the only sound or musical element that is employed in Osundare's *Waiting Laughters*. Another is alliteration, which entails the repetition of consonant sounds in sequence at the beginning of words or stressed syllables within the words. This is seen in the following lines from the text:

*When earth, yolk-yellow, clamours*

[yy]

*For a warrant of wings*

[ww]

*Tiptoe on the prudence of an anthill*

[tt]

*My covenant is clay*

[kk]

*Wisdom my silent wheel (5)*

[ww]

*turning, turning, churning it like a bad diet,*

[tt]

*probing for pellets, probing for dusts*

[ppp]

*prospecting for quiet little banks in the empire*

*of my bag (13)*

*And my swollen pride, and her murmuring mercy;*

[mm]

*the sepia helmet of stubborn tendons,*

*the concert of hips, the moistening motion*

*of oblivious moments... (8)*

[mmm]

*Waiting*

*in the visahouse is a chronicle of cold complaint:*

*the calibrated aircon coughs a chill*

*in the sweaty calculations of a room*

[kkkkkk]

*aloud with doubt (11)*

*earth*

*where seeds rot for roots to rise (26)*

[rrr]



waiting for the irreverent <u>probing of pale paddles</u> (37)	[ppp]
waiting for the <u>bubbles of Bussa</u> where <u>rock riles river</u> and a conquering boat fathoms the sand in a tumble of mysty furies (37)	[bb] [rrr]
The Desert marches in from the North; the <u>Sea sneaks in from the South</u> (46)	[sss]
Blind steel, unfalteringly deaf the blade's hunger <u>when wounded winds</u> bemoan their gashes and grasses bow under their crimson yoke (53)	[www]
<u>Yellow</u> <u>yelps like a yoyo</u> , before finally chasing its Green (78)	[jjj]
A luminous intimation leaps off the trestle, <u>breaks through the barricade of the board</u> , <u>before joining the sky in the fringes of the canvas</u> (78)	[bbbb]
... so innocent of the rumble of the tide. For the <u>sea</u> , <u>too, is silence of seeing sands, silence of unspoken</u>	[sssss] bones...
The <u>sea is silence. But silence is not the sea</u> , <u>so white, so wild with whiskers</u> of buried jaws; worsted galleons, stigma of manacled crossings (80)	[ssss] [wwww]
<b>(Underlining and sounds in square brackets are mine)</b>	
In the above, the alliterative sounds are contained in the words and lines that are underlined and they are clearly reflected at the extreme right column of the page. And in each of the instances above, Osundare consciously uses alliteration as one of the elements of sound with which he foregrounds his message.	
Another of the sound elements that Osundare uses in <i>Waiting Laughters</i> is onomatopoeia. Examples are seen in the following:	
<i>The wind was a song leaping through silky curtains, through sonorous cric-cracs of shuttered windows before hitting the street with a burst of seminal silence (8)</i>	
<i>the evening explodes with a diesel rigour in its coughing horns (32)</i>	
<i>the bark of cannibal guns waiting for the after-silence of pacific twilights (54)</i>	
<i>Far from the buried shrapnel waiting like a stalking paw At the back of roaring mountains (83)</i>	
<i>And the tempest returns a petal of whispering bliss in its shriven hand (91)</i>	
<i>only edicts come down, in metallic deluge, from cloudy chambers of rumbling guns (92)</i>	



In the first example given above, the reader can almost hear the sonorous ‘cric-cracs’ of shuttered windows as the audible sound of the wind leapt in like a song through silky curtains before hitting the street with a burst of ‘seminal silence’. Thus the wind is onomatopoeic in nature. In the second example, the reader tends to hear an imaginary loud noise of explosion and ‘coughing horns’ as the evening is filled with ‘a diesel rigour’. The third example emits the barking sound of ‘barking guns’ as they wait for the after-silence of ‘pacific twilights’. Also in the fourth example, the loud audible sound of ‘roaring mountains’ is made to be heard by the reader. Thus onomatopoeia is one of the sound elements that Osundare uses to make his imagery both perceptible and enduring in the ear and mind of his readers.

Consonance is another of the elements of sound that Osundare uses in *Waiting Laughters*. Consonance is like alliteration in the sense that it is about the repetition of consonant sounds in a sequence of words. But it differs from alliteration in the sense that it is the repetition of a sequence of two or more consonants, with a change in the intervening vowel sound. An example from the text is:

<i>The deed was dawn</i>	[dd] in deed/dawn
<i>and we watched a tutored childhood</i>	[tt] in tu/tored
<i>slip off in ripples of purple noons (8)</i>	[pp] in ripples/purple

The consonance in the repetition of the voiceless bilabial plosives /pp/ in the phrase, “ripples of purple” helps to foreground the ‘supple’ nature of both childhood and moon. Thus with the use of consonance, the reader is made to perceive the tangibility of the phenomena presented.

To conclude this section, we may say that Osundare employs such phonological elements as assonance, consonance, alliteration and onomatopoeia to intensify the phenomena and experiences that he describes. The objective is to make the experiences and phenomena vivid and enduring in the mind of the readers. It is also to make the audience participate in the experiences that are presented in the text.

### 6.1 Graphic Patterns

One way by which poetic form differs from prose form is in its graphic structures. That is, poetry exploits space to form its own graphological distinctiveness, like the use of line, stanza etc. According to Leech and Short “graphological variation is a relatively minor and superficial part of style concerning such matters as spelling, capitalization, hyphenation, italicization and paragraphing” (105). These are determined by the conventional use of syntax but become more expressive when the writer makes a graphological choice thus making use of an unconventional approach in his expression such as a deliberate misspelling.

Osundare in *Waiting Laughters*, *Songs of the Season*, *Songs of the Marketplace* and *Days* though adopts the verse-free form; enriches his works with stylistic variations of aesthetic patterning and line lengths, which give his poetry in the texts, their uniqueness. We shall look at a good number of texts in the collections whose poetic forms are exploited either to aid the ideational contents in them or for other stylistic significance.

In expressing his ideological view on the prevalent economic and political situation in Nigeria in particular and Africa in general, Osundare deploys the graphic poetic forms to make greater emphasis and impact on what he is talking about. Osundare does this by giving both spatial one-word-line and indentational prominence to a word by making it occupy a class of its own in a text. More often, the lines are enjambed in two regular modes. There is also the projection of word in a stanza, or by giving line-initial capital to the first word in the second line. Such examples can be found in *Waiting Laughters*:

Waiting  
                     For the heifer which hides it horns  
                     in the womb of the calf

Waiting  
                     For the nail which springs an ivory wonder  
                     in the aprons of the finger

Waiting  
                     For the tome which split its spine  
                     in the spotted arena of reading eyes

Waiting  
                     For fists which find their aim  
                     and idioms which split their atoms  
                     in ‘ploding shadows. (10)



This poem expresses different and diverse situations of 'waiting', there is a simple structure of the same stanzaic parallelism, with each stanza containing just a unit of thought. The last line which has the status of a stanza assumes the essence of the waiting in which everything has come to the climax. The word "ploding" is incomplete as perhaps, the first syllable has been replaced with an apostrophe to make it have an onomatopoeic effect of an explosion which suggests violent eruption, in line with the overall theme of violent change in the entire collection.

The use of more than one literary device at a time is typical of Osundare as exhibited in some of his works with graphologically deviant structure and repetitions. The use of breath-space pauses, common in oral performances, is employed in *Songs of the Marketplace*; *Moonsongs* and *Waiting Laughters*. According to Alu, this device takes care of punctuations in written English by the use of spacing in print as in "Nightfall" "Back to the future" and "Phase XIII" poems. The structures of these breathing spaces usually result in some structural changes in the form of graphological deviations. For example in *Waiting Laughters*, the poet gives spatial and indentational prominence to certain word by way of giving over all attention to an expression:

Waiting

The anxious fumes of the visa awe-ffice  
 thick with queries, thick with fear  
 and stamps which bite trembling papers  
 with purple fangs, and seals pompous  
 like a mad phallus  
 Narrow, the walls  
 high, imperiously white;  
 the hangings stoke wondering dreams  
 with their tourist havens  
 the future is one wavering complexion  
 of the visaman's edict. (11)

Graphologically, apart from giving 'waiting' the spatial and indentational prominence, the last stanza is further indented from the rest in order to give sharp focus to the action of the visaman.

Waiting....

The visaman, rightly, suited,  
 his hair correct, his parting severe,  
 takes two furtive looks at the crowded hall  
 then shuts the window with a cold  
 imperial hiss; (11)

The change of the type of pre-eminence giving to 'waiting' is quite copious in *Waiting Laughters*. It has an overall significance on the essence of the poems in the anthology.

Some	say
You	moon
Are	the
Ash	es
Of	the
Sun	bath
Ing	lunpid
Night	in
The	grey
Ing	of
Your	silence. (23)

Graphic patterning in Osundare's poetry as a device, is clearly demonstrated in *Waiting Laughters* where a letter of the alphabet is used as a line: The above is also devoid of the complete sense of reading in a linear form. Only a word exists in a vertical arrangement which allows a reading from the top to the bottom. Some of the words are truncated in a deliberate attempt to restrict them to the two vertical lines.





Long  
er  
than  
the  
y  
a  
w  
n  
of  
the  
moon  
in  
a

sky... (84)

The poem is the longest in the collection *Waiting Laughters*, and the most deviant. It ignores almost all poetic patterns, as far as poetic composition is concerned. Normally, a poem is expected to have two levels: the graphic and the phonic. But in this poem, there is a complete merger of the phonic and the graphic media. In other words, the text can only be read with great difficulty, visually, it cannot be read aloud or verbalized, let alone being sung, so its phonic realization is lost. Many factors are obviously responsible for this. First, some verse lines merely have a letter in each of them, as in the spread of the lettered word “yawn” over four verse lines as:

“y  
a  
w  
n”

Now if each of the letters is uttered as an independent line, no communication is made. This is not only a deviation from poetic standard but also the ordinary language structure which poetry is expected to deviation from in the first instance. The first two lines have two recognizable morphemes of the truncated word-longer: “long-“, “er”, while the maximal line of the poem contains just a lexical word. All these make the poem much more elongated than usual. This makes reading extremely difficult. For effective reading therefore, certain words must be brought together and some others separated following the lexical standard of English language.

But the elongation which, of course, engenders difficulty of reading, is graphologically justified as it foregrounds the long period of waiting “harvest” will take. Osundare uses the graphic elongation to admonish the oppressed and the ordinary people that the period of waiting for the political change will not come too soon but might be very long and boring. This long waiting which will eventually resulted in boredom is expressed in the idea of ‘yawn’ as an associative word. The word is stylistically foregrounded for the purpose of striking emphasis.

Osundare further reinforces this idea of long wait with the use of the metaphor of the farmer’s much awaited rainfall for the drying tendrils in the dry season – note the repeated word “waiting” and “dropping” for this emphasis. Again, “waiting” is syllabically “fractured” to further show the slow pace of movement of time as against the people’s hope and expectations.

Wait  
ing  
And the hours limp a-  
long  
with  
band-  
ages  
of fractured moments. (29)

There is an extensive comparison drawn between the period waiting and the realization of the people’s desires. They keep on:

Waiting  
la felon yoked to a tryst with the noose  
a groom for the magic of the bridal night  
a husband pacing the scented corridors of the labour  
ward  
a home-sick traveler on the platform of tardy trains  
a big-bellied billionaire for the aroma of Rhine-rouge  
champagne...



Yet in all of these, the ‘‘bandaged’’.

Time  
 ambles  
 in  
 diverse  
 paces  
 with  
 diverse  
 persons (30)

Another kind of graphic deviation for stylistic effect, can be observed in the poem ‘‘a tongue in the crypt’’ which not only plays on the title of Soyinka’s collection of prison poems, *A Shuttle in the Crypt* (1967) but also ridicules infringement of the rights of the people to freedom of expression under military rule. The idea is expressed in form of an advert:

Patriots  
 Thinkers  
 Countrymen  
 Behold your tongue  
 Sealed up in this iron cage  
 For public safety  
 And the national interest

For permission to use,  
 Apply to:  
 The Minister of Whispering Affairs  
 Dept of Patriotic Silence  
 53 Graveyard Avenue  
 Dumberia (SS. 127)

The poet has in this text exploited the use of incarceration of opposition by the military junta. This is satiric. The first three lines of the poem sound like the observation of certain protocol before the reading of a prepared speech. However, nobody is addressed in particular, but the ‘‘Patriots’’, ‘‘Thinkers’’ and ‘‘Countrymen’’ are those who do the biddings of the power that be. The ‘‘iron cage’’ is an allusion to imprisonment for security purposes in which those who are opposed to anti-social policies are usually kept.

The graphological crafts with which Osundare expresses this concept makes it unique. Of course, failure to adhere to keep a sealed lips of government policies may result to incarceration or an outright extermination as it has always being in military regime or even in a democratic dictatorship. It evokes the imagery of military scenario and oppressive dictatorship where oppositions are crushed or incarcerated.

The poet also uses iconic devices to effect the presentation of certain idea(s) in his poetry. These are in a category of poems classified as ‘‘shaped poetry’’ and concrete poetry’’ in poetic terms. According to Ofuani, ‘‘shaped poetry’’ is the effort on the part of a poet to match graphic form with the conceptual context of the text’’ (85). While ‘‘concrete poetry’’ is simply defined as a form of poem which exists, ‘‘only in written form; there is no corresponding, spoken text at all’’ (Levenston, 467). It essentially involves lexical truncating and cramping, thereby deviating radically from the expected poetic form. In *Waiting Laughters* we have:

The Rails Criss and cross  
 in a crisis of sleep  
 ing  
 steel... (32)

This same conceptual expression also occurs in *Songs of a Marketplace* entitled ‘‘the Nigeria Railway’’ where lexical truncation is expressly used graphically:



dark sna  
 ky str  
 uctures  
   tor tuous  
 milli  
   pede on  
 legs  
   of iron  
 crawl ing  
 wear ily  
   fromswamp to savannah. ( 30)

As ‘shaped poems’ the text achieve graphic patterns that are representatives of the crossing of a rail line at its junction. Osundare uses this to paint the graphic picture of the moribund Nigeria railway system in a comatose. The only reminder of its existence is the rusted line criss-crossing the swampy and the savannah landscape of the country. It has remained in a rickety condition, almost in a state of despair, as he gives a pictorial but yet a graphic description of a locomotive system that is near total collapse:

“...tor tuous  
 milli  
   pede on  
 legs  
   of iron  
 crawl ing  
 wear ily...” (30)

The use of words such as ‘millipede’, ‘crawling’, and ‘wearily’ gives a vivid visual image of the old models of locomotive engines compare to the much modern models which use electricity with faster speed. The ‘millipedic’ movement could also be viewed from the socio-political and economic development of the nation, which still crawl as against the fast developing economies of the developed world. ‘Millipede’, ‘crawl’ and ‘wearily’ in the structure, further reinforce the state of neglect and ineptitude in the Nigerian railway system. While the lexical truncation in the word ‘sleeping’ in the third line suggests the dysfunction of the railway system. Osundare acknowledges this as a fact in an interview with Oguanah (2009), that “the appearance of the poem is a means of meaning” and that “the physical appearance of the poem shows that Nigeria has no railway system”. This poem has both lexical and semantic implications. The words are scattered are jumbled. In his words, “the arrangement of the poem slows down your reading speed. You count the words - all depicting the waiting process”.

One can also observe the use of graphology in “Our Earth Will Not Die”. The last poem in *The Eye of the Earth*. Osundare adopts the graphic craft as a way of expressing a conceptual idea:

Lynched  
   the lakes  
 Slaughtered  
   the seas  
 Mauled  
   the mountains  
 But our earth will not die  
  
 Here  
   there  
     everywhere  
 a lake is killed by the arsenic urine  
 from the bladder of profit factories... (50)

There is the scrambling, jumbling and slanting of the words to depict the harm that has been visited on the natural environment. Although it is a summary of the evils of profit - driven capitalism as a material character to the destruction of the earth, this he has done in a graphic form in order to enhance the meaning of the poem.

This same graphic style is used to expressed the concept of silence in ‘Serpent of silence’, in *The Word is an Egg*. Silence is described in the slanting sliding movement of a serpent. Ironically however, the serpent is to be killed not with a stick but with a pen;



A serpent of silence  
 wriggles across my path  
 I aim my pen  
 at its head  
 My pen breaks  
 into a forest of singing trees  
 A fountain  
 of sprightly idioms. (41)

A pen is not the right weapon with which to kill a serpent. But it is a long silence and so after the silence comes verbal expressions and this is through the tip of the pen which ‘‘breaks/ into a forest of singing trees’’ and ‘‘a fountain/ of sprightly idioms’’. The ‘‘songs’’ and the ‘‘idioms’’, flow from the pen after a long silence. The period of silence is over and nature becomes the first to express the joy of a broken silence ‘‘forest of singing trees’’.

In ‘‘Daughter of the word’’, Osundare uses both graphic crafts and repetitive pattern to express his idea of nature’s role in the existence of the universe through the invocation of words, especially those elements which he describes in feminine terms as ‘‘daughter’’

I invoke  
 Grief  
 Daughter of the Tear  
 Tear  
 Daughter of the River  
 River  
 Daughter of the Cloud  
 Cloud  
 Daughter of the Sea  
 Sea  
 Daughter of the Moon  
 Moon  
 Daughter of the Word. (29)

There is the use of climax to indicate a rising order of importance in the idea expressed. Each of these elements has its role and position in the affairs of nature and one comes before the other. Finally, the ‘‘word’’, is the last and powerful of all. There is an allusion to creation in which words were uttered and the universe came into existence. Osundare sees the word as the beginning of creation. This is paradoxical and tends to contradict the biblical expression. However, the second drives home the truth embedded in the seeming contradiction.

In the Beginning was not the Word  
 In the Word was the Beginning. (12)

The use of more than one literary device at a time is typical of Osundare as expressed in the following graphic structures. This type of literary device is used for emphasis to enhance meaning:

I proscribe the snail  
 I proscribe the shell  
 I proscribe the frog  
 I proscribe the tadpole  
 I proscribe the sun  
 I proscribe the moon  
 I proscribe the tale  
 I proscribe the TRUTH  
 I proscribe History! (WL, 50)

This is typical of dictatorial expression of the military regime where everyone and everything including natural elements such as ‘‘the sun’’, ‘‘the moon’’, and if possible ‘‘HISTORY’’ are proscribed in order to eliminate opposition and criticism. ‘TRUTH’, is the foregrounded element in the poem. The reality of the foray of proscriptions is that truth is a reflection of all other elements mentioned. The proscription TRUTH is the proscription of nature itself which history stands to reflect. Another kind of graphic deviation for stylistic effect can be observed in the following poem;



Waiting laughs:

...The eyes I see are waiting for rallying visions  
 The fists for a bolt of implacable thunder  
 For time it may take  
 Time it may take  
 The stammerer will one day call his  
 Fa-fa-fa-ther-ther's na-na-na-me! (74)

In the last stanza, Osundare tries to capture the mannerism of a stammerer's natural utterance. In doing so, he uses the graphic form to show the actual phonic realization of the stammer's natural idiosyncrasy. In this way, the poem deviates from the expected poetic form by the lexical truncation through hyphenation of the unusually spaced words together in the line to achieve the natural difficulty and jerky efforts of a stammerer to utter words. While the word "will" is deliberately misspelt "wil", a deviation depicting a revolt by the stammerer.

Contextually, Osundare uses the metaphor of the stammerer as a sort of warning to corrupt leaders that not too long there shall be a revolt from the very people they thought are not relevant in the scheme of things. The led who like the stammerer are not good in dialogue may one day express their pent-up emotion in violence.

Relevant graphological features that we shall further consider relate mostly to punctuation marks and these include; capitalization, italicization, and repetition. The utilization of these features in the texts under consideration has some semantic and stylistic implications as shall be revealed in the following analysis. In fact, the deployment of certain graphological resources of language is a common feature in African literary works. For example, Okunoye and Odeunmi (2003:293) have also observed that Achebe makes special of some print marks like italicization and capitalization among others, in *A Man of The People* and *Anthills of the Savannah* to achieve some stylistic effects.

### CAPITALIZATION

Capitalization is a common graphological feature in most of Osundare's poems. In *Songs of the Season*, some expressions are foregrounded for prominence and emphasis. This features prominently in satiric poems such as; "For Fela Anikulapo-Kuti":

...Sing on, then  
 bird of our battled dawn  
 someday our FOLLOW FOLLOW...  
 when a loamy black has routed  
 the YELLOW FEVER of our slaying souls:  
 we shall then stop SHUFFERING AND SHMILING. (96)

Note the use of the sound / / - "sh" as against the sibilant sound /s/ which further places great emphasis on the two words "suffering" and "smiling". This poem captures the experiences of the great musician, Fela, in the hands of the military for using his music as a weapon to fight against tyranny, social injustice, and some other social vices that kept the people "in prison house when dragons wrestle TRUTH".

Capitalization as a form of deviation stands out among other elements in the poem. This is a type of foregrounding which M.A.K Halliday refers to as 'prominence'. It is used in "health for all by the year 2000" for the purposes of prominence and emphasis. This is also a satire on government health policies in every successive administration in Nigeria. This has become more or less a kind of political jingle which has remained a mirage, due to the fact that those factors militating against the realization of a robust health policy are still nor yet addressed. These are poor sanitation, hunger, high cost of drugs and poor facilities in the hospitals:

Though rubbish builds skyscrapers in our streets  
 And malaria struts the lanes like a conquering demon  
 HEALTH FOR ALL BY THE YEAR 2000  
 Though kwashiorkor decimates our brood,  
 Our children so obese with needless hunger  
 HEALTH FOR ALL BY THE YEAR 2000  
 Though medicine merchants murder with unnatural prices  
 And DEATH sells at a thousand for ten kobo



HEALTH FOR ALL By THE YEAR 2000

Though hospitals are horse-spittle  
And theatre door open into crowded morgues

HEALTH FOR ALL BY THE YEAR 2000. (SS, 134-134)

Foregrounding “HEALTH FOR ALL BY THE YEAR 2000” in capital and as a repetition continues to agitate the mind of an average citizen as to whether health is not now an exclusive preserve of the rich who can afford it or an illusion for the helpless poor. Another instance of the use of capitalization for emphasis is seen in “this I believe” where “MAN” is foregrounded and used at the beginning of the second line of the first four stanzas to indicate its significance and to draw attention to it:

...that  
MAN is the centre of this world...  
that  
MAN has the power to tame the tempests  
that  
MAN lives to work and works to live  
that  
MAN’s mind is infinite as... (147)

The poem captures the position of man in the cosmos and portrays man as having a great and powerful psyche that can transform the world. This sounds more philosophical as Adejare (1992) says that, “the use of capital letters other than in their conventional places is a feature of philosophical texts” (65). Thus, most of Osundare’s poetry are philosophical to some degree based on his use of graphological features.

**ITALICIZATION**

Loan words and expressions are foregrounded in italics in most of Osundare’s texts, especially in Yoruba words and expressions e.g. *Iyáwó kòbó kan ábó* (SS, 56) and the entire Fela Anikulapo – Kuti’s lyrics in the poem entitled “for Fela Anikulapo- Kuti”:

*No agreement today  
No agreement tomorrow  
Make ma broda hungry  
Make I no talillll?  
I no go gree!  
No agreement today  
No agreement tomorrow... (SS, 94)*

Like quotation marks, italicization is adopted at times to mark off direct speech as it is the case with Fela’s lyrics. Similar use of italics is also observed in *Village Voices* as, *gangan, gbedu, Bata, egiri, ibembe* (6), and *omodindinrin* (46).

Osundare captures more of Yoruba words in his use of italics as a style. In Canto I of *Waiting Laughters*, we see more of such loan words, especially in Yoruba, being deployed.

Waiting...  
And when the humble axe finally heeds its  
noble task,  
the head descends, lumpen dust in its royal  
mouth

*Òrògòdodo Òrògòdo  
Òrògòdodo Òrògòdo  
Òbá bá ti bēyi*

*O mō d Òrògòdodo oooo.(22)*

This is an Ikere mythology expressing the worthlessness of a king once he has been banished. Elongation of sound is observed in the last unit which is the lengthening of vowels. It functions as a feature of speech as well as an indication of emphasis.

Apart from the use of italics, Osmdare also employs asterisks to mark off the loan words, acronyms and non – English words as footnotes. In *Songs of the Marketplace*, loan words such as; *tanwiji\*(9)*, *molue\**, *danfo\**, *dagbere\* (11)*, *agbero\* (12)*, *ekam\* (18)*, *Isoye\* (80)* but *NEPA\* (16)* and *OED\* (18)*, are not italicized but asterisked. The use of italics and quotation marks to indicate direct speech provides stylistic variation. This is a stylistic device usually deployed in a poem to heighten an expressive idea of the poet in parallel form. For Osundare, this is a carrying over of the Yoruba oral tradition of incantation into written poetry. It may not also be



unconnected with the poet’s expressed idea on an issue that needed to be registered in the mind of the reader. In “Let Earths Pain Be Soothed”, the use of repetition here is to achieve in the reader the seriousness and effects of the dry weather on the environment:

Dust  
 dust in the brewing kitchens  
 dust in eating halls  
 dust in scheming boardrooms  
 dust in retrenching factories  
 dust in power brothels (EE, 28)

The use of repetition also creates certain effects and emphasis in an Ikere mythology of the dethronement and banishment of a king who was once revered and worshipped but now a mere human of bone and flesh:

Behold the wonder,  
 The crown is only a cap!

*Òrògòdodo Òrògòdo*  
*Òrògòdodo Òrògòdo*  
*Òbá bá ti bēyi*

*O mō d Òrògòdodo oooo.*

The king’s brave legs are bone and flesh  
 Bone and flesh, bone and flesh  
 The king’s brave legs are bone and flesh  
 The castle is a house of mortar and stone  
 Mortar and stone, mortar and stone  
 A chair is wood which becomes a throne. (22)

The repetition is used to heighten the effect of the prevailing weather condition in which the earth has been described as prostrating “famished horses” and the plain that was once the “Cradle of green” looks bald thus provoking the dust.

Repetition is also used as a satiric device in:

I proscribe	the snail
I proscribe	the shell
I proscribe	the frog
I proscribe	the tadpole
I proscribe	the sea
I proscribe	the sky
I proscribe	the sun
I proscribe	the moon
I proscribe	the tale
I proscribe	the TRUTH
I proscribe	HISTORY! (50)

The repetition creates emphasis to suggest that military regime(s) do not spare anything in their repressive tendency. And the lexical item “proscribe” in the poem is characteristic of military lexicon in gagging the press. Osundare also makes use of criticism of dictatorial African political leaders:

Waiting  
 like the pothole for its po(r)tion of blood  
 like the smart General for his umpteenth million  
 like idle bugs for their mighty feast  
 like the prathing tongues of parliament of ruse  
 like Blaise for a trusting Thomas



like Imelda for her shoes. (52)

Osundare makes use allusion to names that are reputed for dictatorship and corrupt practices in governance such as “Blaise” as a symbol of betrayal and mistrust in the Cote d’voirean politics and “Imeldia” the plunderer of the Philipino economy. Shaped poetry or graphic method of writing poetry has its aesthetics and meaning. Osundare skillfully uses it to achieve and enhance the meaning of his concept of life in a contemporary society. As the initiator of the “Alter-Native Poetic Tradition”, his use of graphic style has added some uniqueness to his style of poetry by way of deviating from the normal poetic tradition and composition. Meaning permeates all the levels of language description, I have shown how Osundare exploits some aspects of the phonic and the graphic substance of language to achieve some thematic and stylistic effects in his volumes of poetry. The combination of phono - graphological features in the texts appeals to our sense of seeing and hearing. To this Eagleton affirms that:

...Meaning is scattered or disputed  
along the whole chain of signifiers.  
It cannot be easily nailed down;  
it is never fully present in any  
one sign alone... (128)

The deployment of phonostylistic features in the poems is in the words of Jeyifo (2004) “genre-bending...force” (39), in line with the “Alter-Native Tradition” of Osundare’s fame.

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# TRANSLATION PROBLEMS OF ECONOMIC TERMS FROM ENGLISH INTO UZBEK

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## ABSTRACT

*The article is devoted to the study of the translation peculiarities of economic terms from English into the Uzbek language. This study has particular significance as it has been investigated metaphorical terms in the sphere of economics, in the context of translation difficulties lying in the base of their different perception from English into Uzbek. In order to make an accurate translation it is very important to pay attention to metaphorical terms in both languages.*

**KEYWORDS:** *comparative constructions, comparison, metaphorical term, semantics, translation.*

## INTRODUCTION

Translation is a significant process of the terminology. Specifically, translating terms is one of the serious problems that the translator faces, because it includes cultural tendencies, which stand in the background of the original text. This field has been studied by scholars and still requires to be investigated. The translator has to translate not only the different elements of the semiological framework, but also the place of this element in the whole society. Therefore, the economic and social structure of society affects all the elements that make up its structure. The language of economy is a broad concept, which includes vocabulary reflecting various spheres such as business, management, commerce, banking, etc. In addition, the economic terms are used for both oral and written communication. It also includes the language of negotiations, presentations, production meetings and business correspondence reflecting national and cultural specifics. So that the translation of economic texts including various terms related to the economy is not simple task.

Translation is a complex process that involves transferring meaning and intent from one language to another. It becomes even more challenging when it comes to technical and specialized language such as economic terms. This article will focus on the translation problems of economic terms from English into Uzbek. Uzbek is a Turkic language spoken mainly in Uzbekistan and other Central Asian countries. It has been heavily influenced by Arabic, Persian, and Russian, which makes it a unique language with a rich vocabulary. However, the translation of economic terms from English into Uzbek can be challenging due to several reasons.

Moreover, the cultural context of economic terms can also pose a challenge in translation. Economic concepts are often culturally specific, and it may be difficult to find an appropriate translation that conveys the same meaning in a different cultural context. For example, the concept of "capitalism" may not have the same connotation in Uzbekistan as it does in the United States. In addition to the linguistic and

cultural challenges, there are also practical considerations that affect the translation of economic terms. For instance, the lack of a standardized terminology in Uzbek can make it challenging to find appropriate translations for technical terms.

## LITERATURE REVIEW

According to Peter Newmark, it is stated that "Translation has its own excitement, its own interest. A satisfactory translation is always possible, but a good translator is never satisfied with it. It can usually be improved. There is no such thing as a perfect, ideal or correct translation. A translator is always trying to extend his knowledge and improve his means of expression; he is always pursuing facts and words. He works on four levels: translation is first a science, which entails the knowledge and verification of the facts and the language that describes them- here, what is wrong, mistakes of truth, can be identified; secondly, it is a skill, which calls for appropriate language and acceptable usage; thirdly, an art, which distinguishes good from undistinguished writing and is the creative, the intuitive, sometimes the inspired, level of the translation; lastly, a matter of taste, where argument ceases, preferences are expressed, and the variety of meritorious translations is the reflection of individual differences" [1]. The translation process requires great skill from the translator because it is necessary to use each word or term correctly. It is essential to choose not only the most appropriate words and terms, but also take into account the context of the text and to coordinate them lexically-semantically, grammatically and stylistically. According to the use of words in the process of translation, their different meanings are also important in translation. Famous translator Salomov stated that "the reason for the possibility of translating from one language to another is that, although people speak different languages, their laws of thought are the same" [2; 43].



One of the main problems with translating economic terms is the lack of equivalent terms in Uzbek. Many economic concepts and terms are developed in English-speaking countries, and their meanings may not be fully captured by words in Uzbek. This leads to a lack of accuracy and precision in translation, which can cause confusion and misunderstanding.

Another issue is the difference in grammatical structures between English and Uzbek. English is a language that uses word order and sentence structure to convey meaning, while Uzbek relies heavily on suffixes and prefixes to modify the meaning of words. This can lead to difficulty in accurately translating complex economic concepts.

The accuracy of the terms in the translation is considered a vital feature, which serves to ensure the translation adequacy of the entire text related to the field. The main skill of the translator is to be able to identify the categories intelligently that represent the general and specific signs and connections of equal or adequate linguistic means of two languages. It is important to be able to distinguish between broad and narrow lexical-semantic and stylistic meanings, regardless of the form of expression of the meaning, in order to ensure correct translation from one language to another, while preserving the norms of the language. Larson stated that "A loan word refers to a word which is from another language and is unknown to most of the speakers of the receptor language. Loan words are commonly used for the names of people, places, geographical areas and so on. [3; 186]. He points out that loan is important when the translator uses the name of people, places or geographical areas that is unknown to the target readers.

## RESULTS AND DISCUSSION

Currently, the linguistic research of translation problems has reached a qualitatively new level. Trying to create functional-semantic compatibility of two languages in translation requires full creative work from the translator. Translating economic terms is a challenging task, in translating economic terms, and the translator should consider the lexical choice so that the target readers can understand the translation easily. According to scientists opinions; globalization has led to an increase in financial activity and business transactions between countries. As a result, the demand for economic translation has been growing rapidly in recent years and it has been much researched and discussed by many scholars. In the process translation of economic terms it is necessary to pay a great attention to such features as their metaphorical color of the terms. Majority terms in the sphere of economics are based on metaphorical perception of human activity. Some terms that entered the economic terminological system lexemes also reflect different animal names, human body and etc.

In linguistics, translating stylistic units from one language to another is a very complicated and responsible task. This situation can also be found in the terminological system. Since stylistic units have imagery, they serve to express ideas in a stylistically colorful and attractive manner as artistic and descriptive means of speech. They mainly ensure the effectiveness of the language of the work of art in literary studies. It can be observed that there are terms with a

stylistic color in the English economic terminology. They are used together with terms related to the economy and remain in the form of a compound term. For example; the terms "Bull" and "Bear" are used to describe market conditions in economy. The translation of bull is *ho'kiz* in Uzbek language, this economic term is used as a bull market in English. Moreover, a bull market is a market with a growing economy and high employment. There might be a steady increase in the price of a company's shares. In a bull market, strong demand and weak supply are essential for securities. Investors participate in the hope of profit and compete for capital in a bull market.

-Bear Market-this lexeme is also used actively in economy. The exact opposite of bear market is a bull market. In economy, bear market is defined as a drop in investment prices. It will fall drastically instead of rising. There is generally a pessimistic atmosphere about the economy and less confidence. A bear market exists in economy if unemployment rises as companies begin laying off; as a result, economy slows down. Investors withdraw their money from the bear market. Prices become volatile and investors hold onto the cash until the trend reverses. It may lead to continue the downward trend.

-A cash cow is a metaphor for a dairy cow that produces milk, the translation of this compound term is *sog'in sigir* in Uzbek language. The phrase is used to a business that is a low-maintenance.

-The invisible hand is a metaphor for the unseen forces that move the free market economy. The direct translation of this phrase is *ko'rinmas qo'l* in Uzbek language. The term "invisible hand" was first used by the Scottish economist Adam Smith. According to his theory, "invisible hand" refers to "supply and demand" [4; 185]. The term 'vulture fund' is a metaphor used to compare some funds to vulture birds, 'preying' on debtors in financial distress by purchasing the loans at a discount to make a financial gain. Galloping inflation, also known as jumping inflation, occurs at a quick rate (dual or triple-digit annual rates) for a short period of time. A watchdog is related to a person or committee. The main task of this job is to check that companies do not act illegally or irresponsibly.

To address these translation problems, it is essential to have a deep understanding of both English and Uzbek languages and cultures. Translators should also have a solid knowledge of economic concepts and terminology to accurately convey meaning. Moreover, it is crucial to maintain consistency in translating economic terms across different documents and materials.

## CONCLUSION

Thus, in the field of economic terminology, different types of metaphors play a specific role. Therefore, they require a separate research method. It can be seen that the ability to understand and interpret concrete information, lexical relations between different word relationships, requires as deep as possible knowledge of the syntactic and morphological structure of a foreign text. The main task of the translator is to create an understandable, politically correct document. The main methods and features of the translation of metaphorical economic terms were analyzed on the basis of an



important problem for the work of translator. In the process of studying the uniqueness of terms in general, and in particular, in the process of studying economic terms, it became clear that the translation of lexical units in the field of economics creates certain difficulties in finding an adequate equivalent.

The translation of economic terms from English into Uzbek is a challenging task that requires a high level of linguistic and cultural knowledge. To ensure accurate and effective translations, it is necessary to overcome the linguistic and cultural barriers and maintain consistency in terminology. Translators should also be aware of the practical considerations that can impact the translation process. With careful attention to these issues, it is possible to achieve high-quality translations of economic terms from English into Uzbek.

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# COMPARATIVE STUDY ON SELECTED PHYSIOLOGICAL PARAMETERS BETWEEN FOOTBALL AND BADMINTON PLAYERS

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## ABSTRACT

*The purpose of the study is to compare the selected physiological parameters of football and badminton players. To achieve the purpose of the study 20 football and 20 badminton players from Coimbatore district were randomly selected between the age group of 18 to 22 years. The subjects were randomly assigned to two equal groups. Group- I (n=20) underwent football training and Group – II (n=20) badminton training. The following tests were performed to measure the physiological fitness parameters: 12minutes coopers test was used to measure the Vo2 Max, Breath holding test was used to measure the breath holding time. The data collected from the subjects were statistically analysed using 't' test to find out whether significant mean difference existed at 0.05level of confidence. The result of the study showed significant difference in the Vo2 max and breath holding time between the football and badminton players. The Vo2 max was better among the football players compared with the badminton players. The breath holding time was better among the badminton players compared with the football players.*

**KEYWORDS:** Speed Endurance, Speed, Football Referees, Players

## INTRODUCTION

Football is a popular sport in India. Football has enjoyed popularity in Kerala, West Bengal, Goa and northeastern India which consists of Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Arunachal Pradesh and Sikkim. India's current top domestic league, I-League, was formed in 2007 in an attempt to professionalize domestic football. In 2013 the Indian Super League was formed as an unrecognised professional league with 8 teams to promote Indian football to the country and world. After three season, the Indian Super League was recognised as a top tier league, running in parallel with the I-League, thus leaving India as one of the few countries with two fully recognised top tier leagues.[5] Also contested is Santosh Trophy, a knock-out competition between states (provinces) and government institutions. The current captain of the Indian national team is Sunil Chhetri. India is currently ranked 103 among the FIFA World Rankings.[6]The 2017 FIFA U-17 World Cup was hosted by India in the month of October in 2017 and the first time the country had hosted a FIFAevent. The tournament was touted as the most successful FIFA U-17 World Cup ever, with the attendance being a record 1,347,133 surpassing China's 1985 edition where it was 1,230,976. India is also going to host the 2020 FIFA U-17 Women's World Cup. Owing to this, India has also bid to host the 2019 FIFA U-20 World Cup and is considering a bid for the 2023 FIFA Women's World Cup.

## BADMINTON

Badminton is a racquet sport played using racquets to hit a shuttlecock across a net. Although it may be played with

larger teams, the most common forms of the game are "singles" (with one player per side) and "doubles" (with two players per side). Badminton is often played as a casual outdoor activity in a yard or on a beach; formal games are played on a rectangular indoor court. Points are scored by striking the shuttlecock with the racquet and landing it within the opposing side's half of the court.

Each side may only strike the shuttlecock once before it passes over the net. Play ends once the shuttlecock has struck the floor or if a fault has been called by the umpire, service judge, or (in their absence) the opposing side.

The shuttlecock is a feathered or (in informal matches) plastic projectile which flies differently from the balls used in many other sports. In particular, the feathers create much higher drag, causing the shuttlecock to decelerate more rapidly. Shuttlecocks also have a high top speed compared to the balls in other racquet sports. The flight of the shuttlecock gives the sport its distinctive nature.

The game developed in British India from the earlier game of battledore and shuttlecock. European play came to be dominated by Denmark but the game has become very popular in Asia, with recent competitions dominated by China. Since 1992, badminton has been a Summer Olympic sport with four events: men's singles, women's singles, men's doubles, and women's doubles, with mixed doubles added four years later. At high levels of play, the sport demands excellent fitness: players require aerobic stamina, agility, strength, speed, and precision. It is also a technical sport, requiring good motor coordination and the development of sophisticated racquet movements. **Grice (2008)**



**METHODOLOGY**

To achieve the purpose of the study twenty (20) football players were and twenty (20) badminton players were randomly selected from Coimbatore district. The age of the subjects ranged between 18 to 22 years. The following tests was performed to measure the physiological fitness parameters:-To measure Vo2 max 12 minutes cooper test was used and to measure breath holding time breath holding test was applied.

**STATISTICAL TECHNIQUES**

The data was collected & statically examined to compare the physiological parameters of football and badminton players. The “t” ratio was calculated to find out the significance difference between the variables, in all the cases to test significance of the data was tested 0.05 level of confidence.

**TABLE-4.1**  
**COMPUTATION OF ‘T’ RATIO ON VO2 MAX BETWEEN FOOTBALL AND BADMINTON PLAYERS**

VARIABLE	GROUP	MEAN	SD	‘t’
Vo2 Max	Football	2593.30	2.07	4.93 *
	Badminton	2315	2.08	

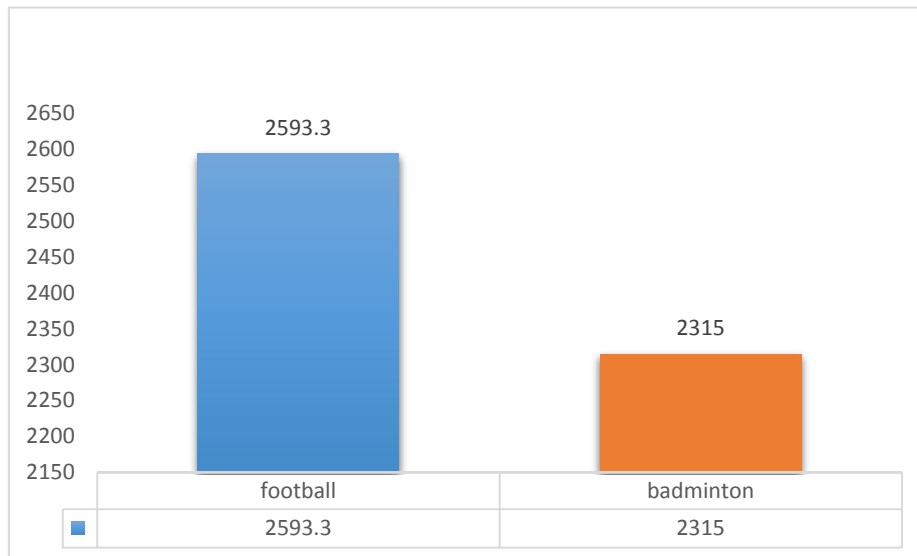
\*Significant at 0.05 level 2.093(1, 19)

The table4.1 reveals that the computation of ‘t’ ratio on speed between footballs and badminton players. The mean value of football and badminton players. Were 2593.30 and 2315 respectively. The observed t value of Vo2 max 4.93 was greater than the table value of 2.093 for the degrees of

freedom 1 and 19 at0.05 level of confidence. Since, it was found to be statistically significant.

The result inferred that there is a significant difference over Vo2 max between footballs and badminton players.

**FIGURE- 1**  
**BAR DIAGRAM SHOWING THE MEAN VALUE ON Vo2 MAX OF FOOTBALL AND BADMINTON PLAYERS**



**TABLE-4.2**  
**COMPUTATION OF ‘T’ RATIO ON BREATH HOLDING TIME BETWEEN FOOTBALL AND BADMINTON PLAYERS**

VARIABLE	GROUP	MEAN	SD	‘t’
Breath holding time	Football	34.26	1.16	6.45 *
	Badminton	35.60	1.63	

\*Significant at 0.05 level 2.093(1, 19)

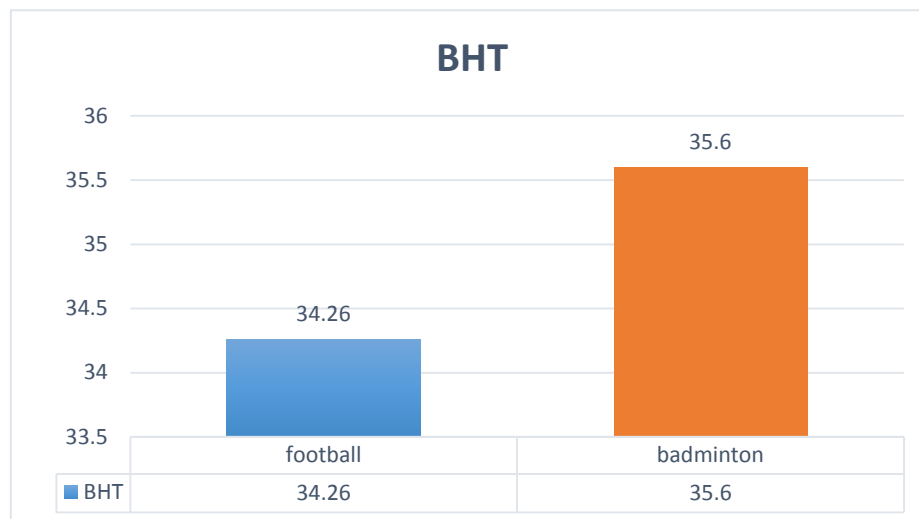


The table 4.1 reveals the computation of t ratio on speed endurance between footballs and badminton players. The mean value of footballs and badminton players were 34.26 sec and 35.60 sec respectively. The observed t value of speed endurance 6.45 was greater than the table value of 2.093

for the degrees of freedom 1 and 19 at 0.05 level of confidence. Since, it was found to be statistically significant.

From the result it is speculated that there is significant difference over speed endurance between footballs and badminton players.

**FIGURE- 1**  
**BAR DIAGRAM SHOWING THE MEAN VALUE ON BREATH HOLDING TIME OF FOOTBALL AND BADMINTON PLAYERS**



### DISCUSSIONSONFINDINGS

The football players naturally need to have more  $vo_2$  max compared to the players. Since, during the course of match the football players must be moving around the big field as the game moves up and down on the field in order to control the ball and to attack the opponents goal during the entire 90 minutes of the match. at all the place and at right time are the see the game up close throughout the field for entire 90 minutes of duration of the match.

The results of the study indicated that there was a significant difference over selected physiological parameters of  $Vo_2$  max and breath holding time difference between footballs and badminton players. The findings of the present study had similarity with the findings of the investigations referred in this study.

**Harshvardhan (2013)** The result revealed that there was a significant difference found in case of vital capacity and pulse rate while insignificant in case of systolic, diastolic blood pressure, positive and negative breath holding capacity and pick flow rat.

**Phogat (2019)** There is also a significant difference found in their maximal oxygen consumption ( $VO_2$  max). However, there is no significant difference found between ball and racket games players in there speed and strength profile.

The result of the present study indicates that football players shows better performance on  $Vo_2$  max when compare to badminton players and badminton players shows better performance on breath holding time when compare to football players.

### Conclusion

From the results of this study, the following conclusions were drawn

1. It was concluded that there was a significant mean difference in  $Vo_2$  max between football players and badminton players.
2. It was concluded that there was significant mean difference in Breath holding time between football players and badminton players.
3. Further it was concluded that the football players possess better  $Vo_2$  max then badminton players.
4. Further it was concluded that the badminton players better then breath holding time then football players.

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# ENHANCING SKILL PERFORMANCE VARIABLES AMONG SCHOOL LEVEL BASKETBALL PLAYERS THROUGH SPECIFIC DRILLS (A PILOT STUDY)

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## ABSTRACT

Basketball is one of the quickest games, and to perform each skill at the desired or necessary level, high level conditioning, coordination, and technical and tactical potential are vital. A programmed called particular skill training comprises performance training created expressly to improve athletic performance. Training programmed for improving game performance may target skills like dribbling, passing, shooting, and other game-specific skills, as well as speed, power, endurance, flexibility, mobility, and agility. The idea of the study was to find out the enhancing skill performance variables among school level basketball players through specific drills. To achieve the purpose of the study, five school level basketball players would be randomly selected from National Sports School, Coimbatore district and their age ranged between 14 and 17 year boys. Single group design was used. All skill performance variables were assessed by standard tests; dribbling by zig zag dribble, passing by throw accuracy and shooting by speed goal shoot test through john basketball test. Specific drills pilot study group (n = 5) would be undergone for a period of four weeks. The results revealed that there was a significant difference found on the criterion variables. The difference was found due to specific drills given to the experimental group on dribbling, shooting and passing of school level basketball players.

**KEYWORDS:** Specific drills, Dribbling, Shooting, Passing, School Level Boys and Basketball Players.

## INTRODUCTION

Basketball is one of the quickest games, and to perform each skill at the desired or necessary level, high level conditioning, coordination, and technical and tactical potential are vital. A programmed called particular skill training comprises performance training created expressly to improve athletic performance. Training programmed for improving game performance may target skills like dribbling, passing, shooting, and other game-specific skills, as well as speed, power, endurance, flexibility, mobility, and agility. They may also target mental toughness, including goal-setting, sleep, and recovery/regeneration techniques and strategies. A more specialized programmed might only include a few of these aspects, depending on the needs of the individual athlete (based on strengths, weaknesses, and/or imbalances), as well as the requirements of the sport they play. A general programmed should include all of these elements. Sports performance training is physical activity designed specifically to increase overall efficiency as an athlete in the sport that choose. An individual could become more physically fit overall and make some progress as an athlete with specific training. In sports, team training refers to a series of physical activities designed to improve a player's physical or motor skills. The training programmed should be particularly created based on the components that are needed for the talent or technique in sport

when it comes to players who are at a higher level or above the basic level. Consequently, a player needs this kind of particular skill training for success in sports. Thus, the present study has been carries out to study the enhancing skill performance variables among school level basketball players through specific drills.

## METHODOLOGY

The idea of the study was to find out the enhancing skill performance variables among school level basketball players through specific drills. To achieve the purpose of the study, five school level basketball players would be randomly selected from National Sports School, Coimbatore district and their age ranged between 14- and 17-year boys. Single group design was used. All skill performance variables were assessed by standard tests; dribbling by zig zag dribble, passing by throw accuracy and shooting by speed goal shoot test through john basketball test. Specific drills pilot study group (n = 5) would be undergone for a period of four weeks.

## CRITERION MEASURES

The subjects of specific drills pilot study would be assessed on the selected variables by the standardized test items before and after the training period of four weeks.





**Table -I**

S.No	Criterion Variables	Test Items	Unit of Measurements
<b>Performance Variables</b>			
1	Dribbling	Johnson Basketball Test	Points
2	Passing		Points
3	Shooting		Points

**TRAINING PROGRAMME**

The total duration of specific drills. The load was increased one in two skills training progress and lasted for 60 minutes. During the training period the subject were treated with specific drills for three alternative days (Monday, Wednesday, Friday) per week.

During the four weeks of specific drills, skill training the subjects were treated with warm up for 15minutes. Followed by specific dribbling drills namely ball roll, zigzag dribble and low and high dribble underwent 1 repetition with 3 sets, passing drills namely wall chest pass, double hand pass and bounce pass underwent 25 repetitions with 3 sets and shooting drills namely triangle shot, three directions under the basket and 0-degree

position shot underwent 20 repetitions with 3 sets. Further the session ended with warming down for 10minutes.

**STATISTICAL TECHNIQUES**

The data are analyzed by paired ‘t’ test was used for assessed the enhancing skill performance variables among school level basketball players through specific drills. The significance level was fixed at 0.05 level of confidence which is considered to be the appropriate one for this study.

**RESULTS**

**Table-II**

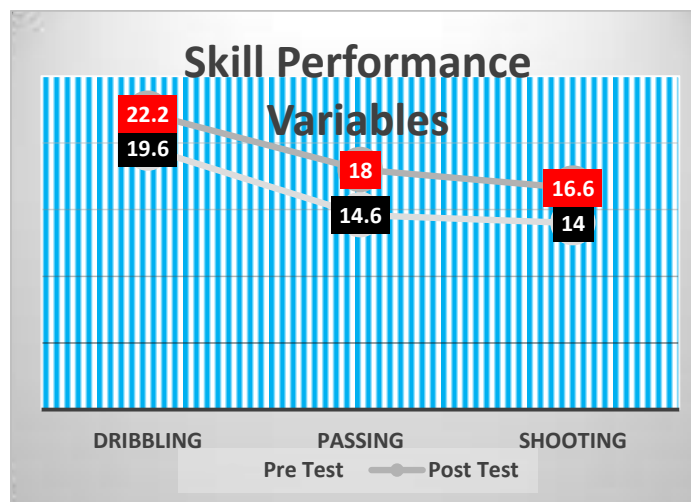
**Relationship of Mean, SD and ‘t’-Values of the Dribbling, Shooting and Passing between Pre & Post Test of the Specific Drills of Basketball Players**

	Variables	Test	Mean	S. D	‘t’ Values
<b>Specific Drills Group</b>	Dribbling	Pre Test	19.60	2.07	6.50*
		Post Test	22.20	2.58	
	Shooting	Pre Test	14.60	2.07	13.88*
		Post Test	18.00	2.34	
	Passing	Pre Test	14.00	3.16	10.61*
		Post Test	16.60	3.36	

\*Significant at 0.05 level of confidence

Table-II reveals that the obtained mean values of pre test and post test scores of specific drills group were 19.60 and 22.20, 14.60 and 18.00, 14.00 and 16.60 respectively; the obtained t ratio was 6.50, 13.88 and 10.61. The required table value is 2.77 at 0.05 level of confidence for the degree of

freedom 4. The obtained t ratio was greater than the table value. It is found to be significant changes in dribbling, shooting and passing of the basketball players. The mean values on specific drills group are graphically represented in figure-1.



**FIGURE-1: LINE DIAGRAM SHOWING THE PRE-TEST & POST-TEST ON DRIBBLING, SHOOTING AND PASSING OF SPECIFIC DRILLS**

## DISCUSSION ON FINDINGS

The specific drills are a fantastic training which has been found to be beneficial of the school level basketball players. To study the specific drills on dribbling, shooting and passing of basketball players at school level, it was tested under to specific drills group. The specific drills include on dribbling, shooting and passing. It also improves the dribbling ability, game tactics, anaerobic capacity, quickness and eye hand coordination and other than some physical fitness components are namely speed, agility, and power. The obtained result proved positively the specific drills group significantly improved. The result of the present study showed that the specific drills have significant improvement on dribbling, shooting and passing ability of school level basketball players. The results of the study are in line with the studies of **Ascender., et al (2019)<sup>1</sup>** and **Marcolin., et al (2018)<sup>2</sup>**.

## CONCLUSIONS

Based on the findings and within the limitation of the study it is noticed that practice of specific drills helped to improve dribbling, shooting and passing ability of school level basketball players. It was also seen that there is progressive enhancement in the selected criterion variables of specific drills group of school level basketball players after four weeks of specific drills programmed. Further, it also helps to improved dribbling, shooting and passing.

It was concluded that individualized effects of specific drills group showed a statistically significant positive sign over the course of the treatment period on dribbling, shooting and passing of school level basketball players.

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# PRINCIPLES AND APPROACHES OF FORMATION OF THE LINGUISTIC COMPETENCE IN STUDENTS IN THE CONTEXT OF INNOVATIVE TECHNOLOGY

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## ABSTRACT

*The article deals with the notion and the importance of the concept linguistic competence defined by specialists as the ability to demonstrate linguistic knowledge, skills and abilities in a work experience. Also, the paper describes detailed information about the approach and organizational-pedagogical conditions that were used in the research. The author concludes that in non-philological education, to develop linguistic competence, e-learning manuals could be widely employed in learning English in an innovative environment.*

**KEYWORDS:** *linguistic competence, ICT, higher education system, competence, teaching, learning, principle, students, skills.*

## INTRODUCTION

According to experts, the concept of “linguistic competence” was determined by the fact that a certain person understands the essence of linguistics and is able to put it into practice [14]. Linguistic competence was defined by specialists as the ability to demonstrate linguistic knowledge, skills and abilities in a work experience. Linguistic competence is more general than the conceptual person, linguistic competence has an individuality aspect. The primary criterion of linguistic competence is determined by the result of productive activity, competitive personnel training [10].

The education system, which is complex, difficult, full of unexpected situations, but meets the urgent needs of society, needs to be reformed and implemented in a new way, and the use of innovative pedagogy and modern technology in Japan is an urgent requirement to reach the ideal education system. The organization of competence education in higher education relies heavily on the following educational principle: The scientific principle guarantees the study of practical knowledge, facts, concepts, rules and scientific competence.

The principle of *systematicity* - provides for the development and use of the teaching purpose, task, content, method, vocabulary and form, the language itself in the form of a complete system, as well as the consistent, systematic, logical formation of the text written by the student. The principle of *consistency* requires students to consistently

master language concepts, to develop speaking competence in a consistent sequence, and to use language skills in accordance with the subject's requirements. The principle of *versatility* - provides for the effective use of natural, descriptive, tactile, didactic, audio-video materials, multimedia, Internet and electronic educational resources in the creation of an independent text by the student. The principle of the *integrity* of education and training envisages the content, consistency and logical connection of the education, ensuring coherence in the process of writing by students, forming and developing cultural communication among students. The principle of *consciousness* - requires the student to consciously raise the level of competence in acquiring the competence of independent writing. The principle of *comprehensibility* means the use of terms and concepts that facilitate the acquisition of new knowledge and facilitate the understanding of a complex idea. The principle of *coherence* is that the student's previously acquired knowledge should be connected with the newly studied topic, as well as the knowledge of spelling, punctuation, and punctuation should be improved in a coherent manner by creating a text [8].

## METHODOLOGY

In the following, we will analyze the task of organizing a workshop for the formation of linguistic competence in students of non-philological education in the field of innovative technology (Table 1.1):



**Table 1.1**

Steps	Purpose
<b>1. Preparatory stage 2 course</b>	The content of the organization of classes in the school of innovative technologies is carried out in the school of psychological and pedagogical training of students. Conditions are created for the preparation of students of non-philological education for educational activities. In this section, the integrator of science is implemented. This lesson can be the same in terms of content for all subjects.
<b>2. Methodical stage 3 course</b>	In this regard, the formation of linguistic competence in students in the context of innovative technologies is ensured by the minimum reproducibility level of preparation. In the methodological part, the study program is carried out in the 3rd year in a specially developed course in practical English.
<b>3. Creative-research stage 4 course</b>	At a certain stage, the preparation of students for educational activities is completed, and with the help of innovative technologies, by forming linguistic competence in students, they acquire the skills of independent research, the objectives of the work are determined and methods are developed. In the third step, the degree of formation of students' readiness for further pedagogical activity is assessed.

In addition to the above scientific analysis, a unique possibility of forming the following linguistic competence in

the English language was determined in the context of many innovative technologies:

**Table 1.2**

**An opportunity to form linguistic competence in foreign language in students**

№	The content of the specific abilities of the student to form the following linguistic competence in the subject of foreign language
1	Realizing the importance of improving the educational system
2	To know the structure and content of the fact that linguistic competence is a creative factor of professional competence
3	Formation of linguistic competence in students with the help of innovative technologies, understanding of the essence of forms, methods and vocabulary and organization and monitoring of their use in the educational environment.
4	Determining the way of implementation of innovative technology
5	Being able to develop a project of modern organization of education in an innovative technology association
6	Ability to monitor the completion and quality of electronic training modules
7	Ability to organize activities of moderators, tutors, keyologists
8	To be able to supervise the updating and improvement of practical training databases
9	To be able to organize and develop an innovative educational environment in the organization of academic activities in HEIs

In our educational process, the current situation of formation of linguistic competences of non-philological educational areas in 2020-2021, 2021-2022, 2022-2023 academic years was studied. In the analysis of studies aimed at the formation of linguistic competence with the help of innovative technologies, levels and criteria for the formation of linguistic competence of students in the context of innovative technologies were developed. The motivational criterion “the existence of socially important motives leading to cognitive and communicative activity” has the following components; manifestation of interest in learning a foreign language, information search and differentiation skills using ICT; interaction with the audience and beyond; positive emotional response to various language activities; the goal is to acquire high-level communication skills to continue cross-cultural communication; motivational and valuable directions and rules of adequate social cooperation; awareness of personal responsibility in choosing the goals, forms and ends

of communicative activity in a foreign language” [1].

**DISCUSSION**

To determine the degree of formation of the motivational environment of non-philological education students for learning a foreign language, as well as to determine the degree of understanding of the importance of a foreign language in their professional activities, to determine the intensity of voluntary actions and emotional reactions of students, their personal and socially conditioned behavior, reasons for self-determination and self-improvement, the tasks of encouraging students to try to form communicative competence in a foreign language at a high level were put forward [11]. The motivational component of communication in the foreign language performs a regulatory function and encourages the creation of positive abilities and qualities of the future student. The formation indicator of the motivational criterion: 1) responsible attitude of students to mastering a



foreign language oriented to the profession; 2) interest in learning a foreign language; 3) awareness of the need for professional knowledge; 4) the presence of internal motives for the activity of independent English language acquisition; 5) orientation of motives to improve professional activity; 6) striving to creatively apply knowledge of a foreign language.

Choosing a cognitive criterion to assess the degree of formation of foreign language communicative competence of non-philology students, with the appropriateness of assessing students' ability to communicate in intercultural context in English, their ability to exchange information for mutual understanding of interlocutors, the ability to use verbally oriented lexical units is determined [5].

The selection of operational criteria for assessing the level of foreign language communicative competence of students of non-philological education focuses on students' mental understanding and processing of external information, which ensures the effective implementation of educational and cognitive activities of educational units, foreign language (grammatical, lexical, phonetic aspects) systematized knowledge acquisition, the need to evaluate the concentration of mental activity, free control of students' mental activity, the level of development of reflection and emotional reactions in practical training. The indicators showing its formation are the following:

- 1) The ability to use the acquired foreign language knowledge in professional activities;
- 2) Communication culture (correct use of speech techniques);
- 3) Design and modeling of activities to solve complex problems;
- 4) The skill of creative use of ICT in professional activities [13].

Also, we provide detailed information about the approach and organizational-pedagogical conditions we used in our research.

The *systematic* approach is used as a general methodological principle to study objects and phenomena in various aspects of science and human activity, its essence is to understand the object of research as a system and to understand the process of studying the object as logic [12].

An *integrative* approach is a holistic representation of the complex as a minimum uniting object, event, process, generality, which results in a new movement [7].

The *personality-oriented* approach is understood as a type of educational process that acts as the entities of the student's and the teacher's personalities, because the purpose of learning is to develop the student's personality, his individuality and abilities [12].

A humanistic approach. In the 1960s and 1970s, a humanistic approach to learning was formed. Accordingly, the educational process is directed directly to the student's individuality. Satisfying his interests and needs will help him learn foreign languages faster. He is involved in the process by creating game situations that take into account the individual abilities of the Incon. In the humanistic approach, the personality of the teacher is still important, but not significantly so.

Communicative approach. The method of teaching through books, such as grammar exercises, reading and translation of texts, is slowly disappearing with the development of high-tech conventional devices. The humanistic approach eventually led to the formation of a communicative approach integrated into the entire procedure.

Cultural approach. When creating a university system of teaching a foreign language, a cultural approach is often taken into account. Its main goal is the formation of intercultural competence. It includes the principles of learning and teaching. The teacher can choose a set of exercises based on the task.

A problematic approach. Increasing the camaraderie of regularly held training sessions is planned. One of the main directions is problem-oriented education, which affects the development of various aspects of a foreign language. Researchers search for resources for cognitive activity, including all the powers of the mind, simulative creativity, and independent problem solving.

Technological approach. ensures the formation and development of students' communicative skills and competences related to the development and introduction of interaction technologies, management and communication. This is compliance with established technological patterns and discipline, knowledge and practice of communication and its various forms, technologists and technicians, verbal and non-verbal means of communication with the camera, organization of modern psychological training, self-confidence in the context of communication. assessment and self-improvement skills [9].

## CONCLUSION

Thus, in the second - emphatic phase of the experimental work, in the specially organized training, the English language teacher in the field of higher education applied the innovative technology in the field of applied English, and in the formation of the linguistic competence of the students, the results of the research were obtained, and the following conclusion was reached: in non-philological education, in the formation of linguistic competence, e-learning manuals can be widely used in learning English in an innovative environment, in the formation of linguistic competence.

Based on the results of the research, the effectiveness of the advanced pedagogical technology aimed at the formation of linguistic competence in the implementation of innovative technology was studied. Formation of students' linguistic competence in the innovative technology school, the scientific-methodical analysis of the topic, ideas and ideas of the public and private scientists serve as an important scientific-methodical tool [6].

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# ADVANCING AGRICULTURE THROUGH IMAGE-BASED DATASETS IN PLANT SCIENCE: A REVIEW

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## ABSTRACT

*Image-based datasets have become increasingly important in plant science, where they are used to study plant morphology, growth, and development, as well as to detect and monitor plant diseases and stress. The use of image-based datasets in plant science has significantly expanded in recent years, as advances in technology have made it possible to collect and process vast amounts of visual data from various sources, including remote sensing, drones, and mobile devices. The importance of image-based datasets in plant science lies in their ability to provide high-resolution and detailed information about plants, enabling researchers to study plant traits and processes in a non-destructive and non-invasive manner. Image-based datasets are also valuable for developing machine learning models that can detect and classify plant species, identify plant diseases and stress, and predict plant growth and yield. Looking ahead, the future benefits of image-based datasets in plant science are immense. The use of image-based datasets has the potential to significantly improve our understanding of plant biology and ecology, leading to the development of more sustainable and efficient agricultural practices. Image-based datasets can also be used to monitor plant health and predict crop yields, enabling farmers to make more informed decisions about irrigation, fertilization, and pest control. However, to realize these benefits, it will be crucial to address several challenges, including the need for more standardized and high-quality image datasets, as well as the development of more accurate and robust machine learning algorithms that can effectively learn from these datasets. Despite these challenges, the use of image-based datasets in plant science is poised to revolutionize the field, providing researchers and practitioners with new tools to address some of the most pressing challenges facing agriculture and plant biology.*

**KEYWORDS:** *Image-based datasets, Plant science, Plant morphology, Growth, Development, Plant diseases*

## INTRODUCTION

The field of plant science has significantly expanded in recent years with the advent of advanced technology and data analysis techniques. In particular, the use of image-based datasets has become increasingly important in studying plant morphology, growth, and development, as well as detecting and monitoring plant diseases and stress. Image-based datasets provide detailed and high-resolution information about plants, enabling researchers to study plant traits and processes in a non-destructive and non-invasive manner. Additionally, the use of machine learning models on these datasets has enabled researchers to detect and classify plant species, identify plant diseases and stress, and predict plant growth and yield [1-5].

This paper explores the importance of image-based datasets in plant science and their potential to revolutionize the field. We examine the various sources of image-based datasets, including remote sensing, drones, and mobile devices, and the challenges associated with the development of more standardized and high-quality datasets. We also discuss the need for more accurate and robust machine learning algorithms to effectively learn from these datasets.

We explore the future benefits of image-based datasets in plant science, including the potential to improve our understanding of plant biology and ecology, leading to the development of more sustainable and efficient agricultural practices. Image-

based datasets can also be used to monitor plant health and predict crop yields, enabling farmers to make more informed decisions about irrigation, fertilization, and pest control [5-10].

The use of image-based datasets in plant science presents exciting opportunities for researchers and practitioners to address some of the most pressing challenges facing agriculture and plant biology. By leveraging the power of advanced technology and data analysis techniques, we can improve our understanding of plant traits and processes, develop more sustainable and efficient agricultural practices, and ultimately, enhance food security for the growing global population.

## THE IMPORTANCE OF UNDERSTANDING DATASETS, AI, AND MACHINE LEARNING IN PLANT SCIENCE

The field of plant science is experiencing significant advancements as a result of technological innovations and sophisticated data analysis techniques. Central to these developments are the concepts of datasets, artificial intelligence (AI), and machine learning. Datasets refer to vast collections of organized and structured data that provide a foundation for analysis and interpretation. AI is a computer system designed to perform tasks that would normally require human intelligence, such as learning, problem-solving, and decision-making. Machine learning is a subset of AI that involves the use of algorithms that can learn from data and improve their



performance over time. In the context of plant science, image-based datasets have become particularly valuable, providing detailed and high-resolution information about plants. By utilizing AI and machine learning algorithms on these datasets, researchers can detect and classify plant species, identify plant diseases and stress, and predict plant growth and yield. These techniques have the potential to significantly enhance our understanding of plant biology and ecology, leading to the development of more sustainable and efficient agricultural practices. Furthermore, AI and machine learning can provide valuable insights into how plants respond to environmental stress, enabling researchers to devise strategies to mitigate the impact of climate change on agriculture [10-20].

The concepts of datasets, AI, and machine learning are central to the development of innovative solutions in plant science. The integration of these concepts provides a powerful framework for advancing our understanding of plant biology and ecology, as well as for the development of sustainable and efficient agricultural practices [20-25].

### IMPORTANCE OF IMAGE DATASET

Image-based datasets have become increasingly important in the field of plant science due to their ability to provide detailed and high-resolution information about plants. These datasets enable researchers to study plant morphology, growth, and development, as well as to detect and monitor plant diseases and stress. One of the significant advantages of image-based datasets is that they can be collected in a non-destructive and non-invasive manner, making them an ideal tool for studying plant traits and processes. Additionally, advances in technology, such as remote sensing, drones, and mobile devices, have made it possible to collect and process vast amounts of visual data from various sources. Image-based datasets are crucial for the development of machine learning models that can detect and classify plant species, identify plant diseases and stress, and predict plant growth and yield. These models can analyze large datasets quickly and efficiently, providing accurate and reliable results. Machine learning algorithms can learn from these datasets, improving their performance over time, and providing valuable insights into plant biology and ecology. The use of image-based datasets in plant science has significant implications for agriculture. They can be used to monitor plant health and predict crop yields, enabling farmers to make more informed decisions about irrigation, fertilization, and pest control. With the increasing demand for sustainable and efficient agricultural practices, image-based datasets have the potential to play a vital role in addressing some of the most pressing challenges facing agriculture and plant biology. They can help develop new plant varieties that are more resilient to environmental stresses, optimize resource use, and reduce the need for harmful pesticides and fertilizers. To realize these benefits, it is crucial to address several challenges, including the need for more standardized and high-quality image datasets and the development of more accurate and robust machine learning algorithms. These challenges can be addressed through collaborations between plant scientists, engineers, and data scientists, who can work together to develop innovative

solutions that can advance our understanding of plant biology and ecology [26-32].

The importance of image-based datasets in plant science is immense. These datasets provide a powerful tool for studying plant biology and ecology, developing sustainable agricultural practices, and improving crop yields. As technology advances and more data becomes available, the use of image-based datasets is poised to revolutionize the field, providing new tools and insights into plant biology and ecology that will have far-reaching implications for agriculture and the environment [33,34].

### CHALLENGES AND OPPORTUNITIES

Image-based datasets offer tremendous opportunities in plant science, from studying plant morphology and growth to detecting and monitoring plant diseases and stress. However, several challenges must be addressed to realize the full potential of these datasets. One of the primary challenges is the need for more standardized and high-quality image datasets. The accuracy and reliability of machine learning models depend on the quality of the data they are trained on. Therefore, it is essential to collect high-quality images and ensure that they are labeled correctly to avoid biased results. Another significant challenge is the development of more accurate and robust machine learning algorithms that can effectively learn from these datasets. Machine learning algorithms must be trained to recognize patterns and anomalies in plant images accurately. However, this can be challenging, as plants can vary significantly in their appearance, making it difficult to identify all relevant features [35-40].

Additionally, data privacy and security can be a challenge when using image-based datasets, as they can contain sensitive information about plant species, location, and growth patterns. It is crucial to ensure that these datasets are handled securely and that any data sharing or collaboration is done ethically and transparently.

Despite these challenges, image-based datasets in plant science present numerous opportunities for research and innovation. These datasets can help identify plant species, detect diseases and stress, and predict plant growth and yield, leading to the development of more sustainable and efficient agricultural practices. Image-based datasets can also aid in the development of new plant varieties that are more resilient to environmental stresses, reducing the need for harmful pesticides and fertilizers. The challenges and opportunities of image-based datasets in plant science are intertwined. By addressing the challenges, we can unlock the full potential of these datasets, leading to innovative solutions that advance our understanding of plant biology and ecology and have far-reaching implications for agriculture and the environment [41-50].

### CONCLUSION

The image-based datasets have become increasingly important in plant science, providing researchers and practitioners with new tools to address some of the most pressing challenges facing agriculture and plant biology. The ability to collect high-





resolution and detailed information about plants in a non-destructive and non-invasive manner is a significant advantage of image-based datasets, enabling researchers to study plant traits and processes with unprecedented precision. To fully realize the benefits of these datasets, several challenges must be addressed, including the need for more standardized and high-quality image datasets, the development of more accurate and robust machine learning algorithms, and ensuring data privacy and security. By overcoming these challenges, image-based datasets can significantly improve our understanding of plant biology and ecology, leading to the development of more sustainable and efficient agricultural practices. The image-based datasets are poised to revolutionize the field of plant science, opening up new avenues of research and innovation that could have a significant impact on our society and the environment. The continued exploration and development of image-based datasets in plant science hold enormous promise for the future, and the opportunities for research and innovation in this field are limitless.

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# SCHOOL BASED ENVIRONMENTAL EDUCATION PROGRAMMES IN THE SCENARIO OF ASSAM, INDIA: KEY TO SUSTAINABLE DEVELOPMENT

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## ABSTRACT

The present world is facing serious environmental issues, such as climate change, ozone layer depletion, global warming etc. which create threats to the entire ecosystem. In this connection, Environmental Education has been emerged as measuring tool to such environmental issues which has in turn established Environmental Education as the need of the hour. The sole purpose of Environmental Education is to attain Sustainable development. Considering this, the Government of India started promoting Environmental Education with various initiatives in the formal system of education. In this direction, the Government of Assam has also initiated School Based Environmental Education Programme. The present paper is an attempt to highlight the background of initiating the elevation of Environmental Education in India to attain sustainable development for the 21<sup>st</sup> century. In this paper, the authors have tried to explore various school based Environmental Education programmes undertaken by Government schools with special reference to the State of Assam, India. In exploring these programmes, the syllabi and academic calendar prepared by SCERT, Assam, Board of Secondary Education, Assam and Assam Higher Secondary Education Council have been taken as basis. Also, this paper will provide insight into the endeavour towards the school based environmental education programmes under Eco-Clubs in Assam, India. In the conclusion, suggestions are put forwarded for furthering sustainability through environmental education.

**KEYWORDS:** Environmental Education, Sustainable Development, Formal Environmental Education Programmes, Non-formal Environmental Education Programme, National Green Corps, School Eco Clubs.

## 1. INTRODUCTION

Sustainable development of the entire bionetwork is predominantly reliant on men and environment relationship. The environment always influences people's life and ensures the fulfilment of their various needs. The human civilization has gathered all the resources from the natural environment. But, while utilising the natural environment for satisfying present day needs, people should not forget about the adverse impact of their activity on environmental protection and preservation. In the recent time, people themselves have become a reason for environmental catastrophe. As such the present world is facing serious environmental issues, such as climate change, ozone layer depletion, global warming etc. which create threats to the whole bionetwork. In this connection, Environmental Education has been emerged as the need of the hour because it plays as a measuring tool to such environmental issues.

Environmental Education is that education process which allows individuals to explore environmental problems, develop the capacities to solve the problems and take necessary action to improve the environment. It creates a deeper understanding of individuals towards environmental issues and enable them to

be equipped with the skills. Environmental Education primarily empowers people in terms of -

- Environmental awareness, sensitivity, knowledge to address environmental challenges.
- Correct attitudes and enthusiasm to uphold environmental excellence.
- Capability to recognize and resolve environmental challenges and involvement in events that lead to the resolution of ecological challenges.

According to UNESCO, "Environmental Education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action." This definition has established Environmental Education as a strong tool to achieve sustainable development.

The growing concern about the impact of human action and behaviour on the natural environment has led to the emergence



of the concept of sustainable development. The World Commission on Environment and Development, 1987 demarcated the idea of sustainable development. It stated that sustainable development meets the requirements of the present without compromising the ability of forthcoming generations so that their desires can be gratified. This definition acknowledges that while development may be necessary to meet human needs and improve the quality of life, it must happen without reducing the capacity of the natural environment to meet present and future needs. The sustainable development movement has grown and campaigned on the basis that sustainability protects both the interests of future generations and the earth's capacity to regenerate.

Environmental Education for Sustainable Development is a formal commitment promoted by UN in order to ensure that all countries could be able to attain sustainable development. Environmental Education for Sustainable Development is the response of the UNESCO's education sector to the urgent and severe issues that the entire globe is currently facing. UNESCO states that the ecosystem is in danger because of human activity. It believes that through a holistic approach the environmental issues and challenges can be mitigated. Environmental Education for Sustainable Development for 2030 education programme of UNESCO aims to bring about the personal and societal transformation that is necessary to change course.

Environmental Education for Sustainable Development aims at giving the students all knowledge, skills, attitudes along with values through the medium of education for making them socially responsible global citizens. The ultimate goal of Environmental Education for Sustainable Development is to shape a sustainable future. The exposure to active Environmental Education for Sustainable Development teaching strategies helps students to gain more environmental knowledge, behaviour, attitude and skills. (Sarma, M., 2017). The importance of global collaboration for achieving the purposes and goals of Environmental Education for Sustainable Development was highlighted in the International Conference on Environmental Education held in the year 2004 at Centre for Environmental Education in Ahmadabad.

In this regard, the Government of India has shown its great concern towards environmental issues. Considering the miserable realities related to environmental degradation; certain Environmental Education programmes are introduced for students at every level of education i. e., Primary Level, Secondary Level and Higher Education Level to make them aware of their surrounding environment and achieving sustainable development.

This paper highlights the background of initiating the elevation of Environmental Education in India to attain sustainable development for the 21<sup>st</sup> century. As education is recognized as the key to sustainable development, an attempt is made in this paper to explore various school based Environmental Education programmes undertaken by Government schools with special reference to the State of Assam, India. In exploring these

programmes, the syllabi and academic calendar prepared by SCERT, Assam, Board of Secondary Education, Assam and Assam Higher Secondary Education Council have been taken as basis. Also, the authors have endeavoured to highlight the school based environmental education programmes under Eco-Clubs in Assam. This study is qualitative in nature based on exploratory and descriptive research method.

## 2. BACKGROUND OF INITIATING THE ELEVATION OF ENVIRONMENTAL EDUCATION IN INDIA

Environmental education has been prioritized to achieve sustainable development in the last few decades. In order to achieve the goals of sustainable development, Government of India has undertaken various initiatives for promoting Environmental Education. In the context of India, through the 42nd Amendment into the Constitution in the year 1976; the Government of India had incorporated environmental concern into its policy and prospects. As such; in policy statements, plans and strategies, the environmental issues have occupied significant place with the establishment of a full-fledged Ministry of Environment and Forests in 1980. This was later renamed as Ministry of Environment, Forest and Climate Change.

Government of India has also recommended the Ministry of Human Resource Development to integrate environmental concerns into all aspects and all levels of education; because education is the strong means to ensure sustainable development.

For school education in India, the government decided to introduce policies on Environmental Education. In this regard, the National Policy of Education (NPE) 1986 reshaped the status of Environmental Education in school education system. The National Policy of Education, 1986 emphasised on Environmental Education as essential aspect of the curricula of school education at all levels, realizing the urgency for understanding and creating awareness regarding environmental issues.

Also, the protection of natural and social environment has been included by National Curriculum Framework for School Education, 2000 in the general objectives of school education. In the year 2001, the Supreme Court of India directed University Grant Commission to introduce Environmental Education as a basic course at every level in higher education. As of today, the universities introduced a common course for undergraduate students across all disciplines including arts, science, commerce, engineering, medical and agricultural sciences. The Ministry of Environment, Forests and Climate Change interacts actively with the University Grants Commission, National Council of Educational Research and Training and the Ministry of Human Resource Development for introducing and expanding environmental concepts, themes, issues etc. in the curricula of schools and colleges. The Ministry offered all the states for technical and financial help in strengthening environmental education in the curriculum.



As per the direction of the Supreme Court of India, initiatives have been undertaken in India for incorporating the environment related contents in terms of concepts, themes and issues in the school syllabus from 2004-05. The National Curricular Framework 2005 has also emphasized on incorporating integrated approach to environmental education. As a follow-up of National Curriculum Framework 2005, the National Council of Educational Research and Training and State Council of Educational Research and Training at the state level have developed the syllabi and textbooks for all levels of school education.

Moreover, the Ministry of Environment, Forest and Climate Change organizes a large number of Environmental Education programmes at different levels which involves students, teachers, researchers etc. It has established Environmental Information System Centres across different states and cities to facilitate collection, analysis and dissemination of information on various environmental themes and issues including environmental education at the national level. The major responsibilities of Environmental Information System Centres comprise building up a good collection of books, reports and journals in the particular subject area of environment, establishment of linkages with all information sources in the particular subject area of environment, responding to user's queries. Furthermore, the Ministry of Environment, Forest and Climate Change has been funding towards research in various ways. The grant-in-aid projects and other funds are allocated for many research institutions and organizations working in different fields of studies under the broad realm of environment protection and management. The research programmes comprise of environmental research programme, forestry research, wildlife research, etc., to protect the environment.

National Education Policy, 2020 stresses upon appropriate integration of environmental awareness including water and resource conservation and sensitivity towards its conservation and sustainable development in school curricula. This policy has specially emphasised upon introduction of environmental education as a contemporary subject at relevant stages of education.

### 3. SCHOOL BASED ENVIRONMENTAL EDUCATION PROGRAMMES IN ASSAM, INDIA

The school based Environmental Education Programmes can be classified as Formal and Non-formal Environmental Education Programmes. Both Formal and Non-formal Environmental Education Programmes intend to provide participatory and experiential learning to the young minds to build environmental awareness. In this regard, it is noteworthy to mention that the Govt. of Assam has constituted a committee as per *Notification No.ASE.298/2020/Pt/2* for providing recommendations on preparing a uniform academic calendar for Elementary, Secondary and Higher Secondary or Senior Secondary level. Accordingly, SCERT, Assam (From Ka-shreni to Class VIII), Board of Secondary Education, Assam (Class IX & X) and Assam Higher Secondary Education Council (Class XI & XII) have prepared uniform Academic Calendar from 2021 onwards.

#### 3.1 Formal Environmental Education Programmes

The programmes of Formal Environmental Education are implemented at school level by integrating and including environment related topics like resources- water, mineral, energy etc, forest and wild life, Biodiversity, Agriculture in terms of chapters in to the curriculum. The following table shows different formal environmental education programmes of at various levels of education in Government schools of Assam, India.

**Table-1 showing Formal Environmental Education Programmes in School Education.**

LEVELS OF SCHOOL EDUCATION	Environmental Education Programmes
<b>Primary Education Level</b>	<ul style="list-style-type: none"> <li>• Inclusion of environmental concepts into the Chapters of Mathematics and Language</li> <li>• Inclusion of text book on Environmental Studies instead of separate subjects like Science &amp; Social Science</li> </ul>
<b>Upper Primary Education Level</b>	<ul style="list-style-type: none"> <li>• Integration of the concept of Environmental Education in the textbooks through Science and Social Science.</li> <li>• Inclusion of the environment related themes and issues in textbooks of Science and Social Sciences</li> </ul>
<b>Secondary Education Level</b>	<ul style="list-style-type: none"> <li>• Adoption of "Infusion Model +Project"</li> <li>• Incorporation and inclusion of the concept of Environmental Education in the textbooks through Science and Social Science to link the concept with real life situation.</li> <li>• Preparation of report on visit to a Hilly Area with the purpose of observing Topography, Flora and Fauna etc.</li> <li>• Preparation of report on visit to a Polluted Site with the purpose of observing cause and effect of pollution.</li> </ul>



	<ul style="list-style-type: none"> <li>Preparation of report on Ecosystem of a local river, stream or pond with the purpose of observing Topography, Biotic Components, Factors Affecting Ecosystem, activities of Local people.</li> <li>Preparation of project on environmental issues like-deforestation, landslide, forest fire, floods, pollutions as part of Social Science Subject.</li> </ul>
<b>Higher/Senior Secondary Education Level</b>	<ul style="list-style-type: none"> <li>Inclusion of Environmental Education as compulsory subject for Arts, Science and Commerce streams in HS first year only.</li> <li>Integration of Environmental Education with various subjects like Geography, Sociology, Political Science, Economics Physics, Chemistry, and Biology in the curriculum.</li> <li>Inclusion of environmental field study in the subject of Geography</li> </ul>

(Source: Academic Calendar, SCERT, Board of Secondary Education, Assam and Assam Higher Secondary Education Council)

### 3.2 Non-Formal Environmental Education Programmes

Non-formal environmental education programmes comprise all the programmes and activities apart from the course contents. At the school education level; throughout the entire academic year based on Academic Calendar, the Government schools undertake different programmes with a focus to create

awareness on environmental conservation and protection as a part of non-formal environmental education programme. The following table shows different activities under non-formal environmental education programmes at various levels of education in Government schools of Assam, India.

**Table-2 showing different activities under Non-Formal Environmental Education Programmes.**

Sl.NO	Observance Day	Activities		
		Elementary Education Level	Secondary Education Level	Higher Secondary Education Level
1.	<b>Observance of World Water Day</b> (22 <sup>nd</sup> March)	Awareness programme regarding importance of conserving and managing fresh water resources.  Engaging students in preparing Posters, Slogans etc. on conservation and uses of water to be displayed inside and outside the school campus.	Explanation of the significance of the day  Awareness programme regarding importance of conserving and managing fresh water resources.  Preparation of befitting posters, art work etc.	Awareness programme about fresh drinking water, conservation of water etc.  Engaging students in preparing befitting posters, art work etc.
2.	<b>Observance of Earth Day</b> (22 <sup>nd</sup> April)	Awareness programmes on various issues like prevention of Plastic Pollution and Global Warming, Security of Birds and Public health, measures to reduce air pollution etc.  Engaging students to draw posters, write slogans, poems, stories on the above-mentioned issues to be displayed inside and outside the school campus.	Explaining the significance of the day in the morning assembly  Awareness programme for appreciating the beauty of the earth .  Awareness programme for preserving and conserving the environment	Awareness programme for appreciating the beauty of the earth .  Awareness programme for preserving and conserving the environment .



3.	<b>Observance of World Environment</b> (Day 5 <sup>th</sup> June)	Highlighting the significance of the day and enlightening the students about the necessity of trees and plants for ecological balance.  Organising events such as- essay writing, composing of poems, extempore speech on conservation of the environment and reduction of environmental pollution to create awareness on maintaining a balance between the environment and the ecosystem.	Plantation of saplings  Students' participation in Quiz, Debate, Extempore Speech.  Organizing Special talk by Environmental activists.	Plantation of saplings  Students' participation in Quiz, competition on Debate, Extempore Speech among the students.  Special talk by Environmental activists.
4.	<b>Observance of World Disaster Day</b> (13 <sup>th</sup> October)	Awareness programme on the measures to reduce damages caused by Natural and man-made Disasters.  Demonstration of ways and means to be taken before and after the disaster with the help of Disaster management Authority.	Discussion on the techniques to reduce the consequences of Natural and Man-made disaster.  Highlighting the measures of disaster management.	Discussion on the techniques to reduce the consequences of Natural and Man-made disaster.  Highlighting the measures of disaster management.
5.	<b>World population Day</b> , (11 <sup>th</sup> July)	Not observed at Elementary Level as per Academic Calendar	Competitions on Essay writing, Debate, Quiz, Extempore Speech etc.  Preparation of posters, art work to mark world population day.	Essay writing on world population, Discussion, posters preparation

(Source: Academic Calendar, SCERT, Board of Secondary Education, Assam and Assam Higher Secondary Education Council)

#### 4. SCHOOL BASED ENVIRONMENTAL EDUCATION PROGRAMMES UNDER ECO-CLUBS IN ASSAM

In India, the Ministry of Environment, Forests and Climate Change has promoted the idea of Eco Clubs in Government schools by the through National Green Corps Programme. The National Green Corps Programme was launched in 2001-02 which aims at inspiring and motivating school students to participate in various environmental conservation and environmental sustainability.

In Assam, the National Green Corps Programmes have been implementing by the Environment Division of Assam Science, Technology and Environment Council since 2001-2002 as State Nodal Agency of Eco Clubs comprising of ME, MV, High & Higher Secondary Schools. Under this programme, eco-clubs

are suggested to be formed by the Government schools at Elementary, Secondary and Higher or Senior Secondary level. Accordingly, in Assam all total 8316 Government schools have formed Eco Clubs in order to encourage students to involve in various environment related activities for environmental sustainability.

Eco Clubs in schools empower students to learn to live sustainably. It also enables students to explore environmental concepts and actions beyond the confines of a syllabus or curriculum.

Under the aegis of this State Nodal Agency, the schools are advised to organise the following activities-

**Table-3 showing activities to be undertaken by Eco Clubs in school under National Green Corps Programme.**

1	Conducting lectures and popular talks, seminars, debates on environmental issues in the school.
2	Conducting field visits to ecologically significant sites including polluted and degraded sites wildlife parks.
3	Conducting various activities for environmental awareness like rallies, marches, human chains, street theatre etc. at public places.
4	Taking up events within and outside the school campus for plantation, cleanliness etc.
5	Adopt at least one natural water body by each Eco Club for regular cleaning and maintenance.
6	Nurturing kitchen garden along with maintaining vermin-composting pits, constructing water-harvesting structures in school and practicing paper recycling.
7	Preparing inventories for pollution causes and collaborating with the concerned agencies.
8	Organizing awareness events for individual hygiene by developing habits like washing hands before meal.
9	Sensitizing about the maintenance of public places like parks, gardens both within and outside the school campus.
10	Mobilizing actions against practices which are ecologically harmful like garbage disposal in unauthorized places, unsafe disposal of hospital waste etc.
11	Undertaking case studies, compile lists of ecologically friendly products and community initiatives which have impacted the environment.
12	Creating database on land use pattern, species diversity, medicinal plants, etc. to help planned conservation efforts.
13	Testing soil, water and air quality and study their impact on health.
14	Learning to make natural dyes and herbal cosmetics.
15	Volunteer to help or guide visitors in Zoos, Botanical Gardens, National Parks and Public Gardens.
16	Initiating and maintaining a mini orchidarium, seed bank, arboretum, etc. in school.
17	Demonstrating or promoting eco-friendly practices like non-chemical pest management, stall-feeding of animals to protect pastureland from over-grazing, use of energy- efficient devices or use of renewable energy for meeting local needs.

(Source: GUIDELINES, National Green Corps (NGC), State Nodal Agency (SNA) Assam Science Technology and Environment Council)

At present in Assam, the following activities are undertaken in the Government schools under School Eco Clubs-

- Setting up of fruits and vegetable gardens.
- Awareness programmes and projects on (i) Environment Protection, (ii) Conservation of Water Energy, (iii) Climate Protection, (iv) Disaster preparedness
- Health awareness programmes/camp
- Creation of models
- Community service through Cleanliness Drive.

(Source: Academic Calendar, Department of School Education, SCERT, Govt. of Assam, 2023-24)

## 5. CONCLUSION

In this paper, it is observed that the Indian government has taken commendable initiatives to promote sustainable development through environmental education. Considering the initiatives of Government of India, the Government of Assam has taken up steps for incorporating formal and non-formal Environmental Education Programmes in schools by redesigning uniform academic calendar from Elementary to Higher/Senior Secondary schools. It is evident that various Environmental Education Programmes have been undertaken at different levels of school education through integrating environmental themes, concept, issues etc. in the curricula. Apart from this, environmental awareness among students is creating through organising various activities outside the classroom. In this connection, the school Eco Clubs are

rendering tremendous effort towards imparting environmental education. But it is found that no grade /marks are counted in the final evaluation of the students for their participation in Environmental Education related activities. Due to this reason the non-formal environmental education programmes are not taken seriously by the students in some schools. Considering this situation, the evaluation system should upgrade its mechanism. It is also felt that intensive teacher training and orientation programme on environmental education should be organised on regular basis which would help Environmental Education to get its right direction in school education. Such training programmes or orientation programmes would aid in providing experiential learning on Environmental Education. Right co-ordination between State Education Department and Non-Governmental Organisations can facilitate Environmental Education in schools. Also, it is come to notice that the school Eco Clubs in the government schools in Assam have provided very few experiential environment related activities. But, the Environment Division of Assam Science, Technology and Environment Council have suggested 17 activities to be conducted under Nation Green Corps. In this connection it is suggested that the school Eco Clubs should provide experiential learning by conducting maximum varied environment related activities.

## 6. ACKNOWLEDGEMENT

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# PERCEPTION OF UNDERGRADUATE NURSING STUDENTS REGARDING ONLINE LEARNING IN NURSING EDUCATION DURING COVID-19 PANDEMIC STUDYING IN DESH BHAGAT UNIVERSITY SCHOOL OF NURSING, MANDI GOBINDGARH, PUNJAB.

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## ABSTRACT

**Background:** In India on 24th March 2020, due to COVID-19 an infectious disease pandemic the Indian Government have ordered nationwide lockdown to mitigate the impact of COVID19 and almost all State governments ordered suspension of all its educational institutions to ensure social distancing which necessitated nursing educators and students to adopt online learning and continue the curriculum activities.

**Aim of the study:** To assess the perception regarding online learning among undergraduate nursing students.

**Methods:** A Quantitative approach and descriptive research design was used to assess perception of online learning among undergraduate nursing students of selected nursing college of DBUSON, Mandi Gobindgarh, Punjab. The responses were collected by self structured online questionnaire. Data was analyzed through Statistical Package for Social Sciences (SPSS) The Cronbach's Alpha value was 0.88. Data analysis done by frequency, percentage distribution and chi square test.

**Results:** The result shows no significance association found between age, residence, type of college, religion and regarding personal perceptions. Only there was significant association found with classes of study and perception of online learning.

**Conclusion:** The present study concluded that under graduate nursing students had a positive perception regarding online learning. Their perceptions are responsible for their learning interest and attentiveness to continue their online classes on time and to maintain balance between their learning activities and personal and social life. The stakeholders, educator should ensure adequate and sufficient availability of digital resources.

**KEYWORDS:** perception, undergraduate nursing students, online Learning.

## INTRODUCTION

In India on 24th March 2020, due to COVID-19 an infectious disease, the Indian Government have ordered nationwide lockdown to mitigate the impact of COVID19 pandemic. Following this, many State governments ordered suspension of all its educational institutions to ensure social distancing.<sup>1-2</sup> All the undergraduate medical and nursing students were sent to the safe confinement of their homes until the completion of lockdown. Initially for a period of 21 days, than lockdown was repeatedly extended, which added anxiety and impacted nursing students education.<sup>3-4</sup>

Online learning is defined as learning and teaching by the use of internet and electronic devices. During this period continuing nursing education was a challenge for administrators, institutions, academicians, parents and the students. In this time most of the institutions adopt the e- learning to continue the medical education.

## NEED OF THE STUDY

The Pandemic declaration and lockdown by the Indian government announced closure of all the educational institutions for an uncertain period and shifted educational

activities via online learning to protect students and continue their curriculum activities.

Nursing students in covid-19 pandemic situation come in direct contact with patients during their clinical posting that may increase the risk of transmitting SARS-COV-2 among students and patients. E-learning is the only valuable option left for the continuation of nursing education. Students learning is life-long learning as it go on anywhere and all time and, thereby developing new skills. The UGC also recognized the importance and recommended to shift from offline to online mode of learning in this changing world.

During the lockdown, online classes were conducted by using e platforms such as zoom, Google meet, Microsoft Web, videos on YouTube, and PowerPoint presentations on Slide Share and what's App to facilitate better student teacher interaction. Institutes stakeholders administrators, policy experts and academicians should give preference to student's perception and interest towards e learning as they belong tovarious socio-economic backgrounds.

## AIM

The overall aim of this study is to assess the perception of undergraduate nursing students regarding online learning in



nursing education during covid-19 pandemic studying in nursing college DBUSON, Mandi Gobindgarh, Punjab.

## REVIEW OF LITERATURE

Syed S, Rastogi A, et al. (2021) has conducted a study on future of e-learning in medical education - perception, readiness and challenges in a Developing Country. A survey questionnaire was used to collect data from 3,004 healthcare professionals by snow-ball sampling technique. The data analyzed by descriptive analysis, Univariate analysis and odd ratios (OR) using SPSS version 22. The findings of the study revealed that 61% were young adults (<30 years), 65.41% used e-learning for knowledge and skills, 71.1% stated cyber security concerns. Majority participants mentioned reduced travel time and maintaining social distancing (68.21%) without compromising learning.<sup>7</sup>

lum R. et al. (2020) has conducted a cross-sectional study to assess the awareness, attitudes, preferences, and challenges to e-learning among Bachelor of Medicine and Bachelor of Surgery and Bachelor of Nursing students at Maker ere University, Uganda. A web-based questionnaire was used to collect data from 221 students. The findings revealed that 195 (92.1%) were Ugandans, 123 (57.5% male). Majority 57 (26.6%) had access to high or very high quality internet access, 206 (96.3%) Awareness and 177 (82.7%) self-reported usage of e-learning (MUELE) among students were high. among 206 and 50% lacked skills in using the Maker ere University e-learning (MUELE) platform. About half (n = 104, 49%) of the students believed that e-learning reduces the quality of knowledge attained and is not an efficient method of teaching. There was significant association between Monthly income (P = .006), internet connectivity quality (P < .001), computer ownership (P = .015) and frequency of usage of academic websites or applications (P = .006) with attitudes towards e-learning.<sup>8</sup>

Suryawanshi DM et al. (2020) this study has conducted to Understand perceptions and preferences of medical students and their barriers. The data collection was done by semi-structured questionnaire after consent from 296 students of second year selected by non probability sampling method. The data analysis done using SPSS version 21. The Result showed were that the majority of the participants 179 (62.5%) were female. Only 18 (6.2%) had advanced computer and internet usage skills. 138 (48.2%) students

showed preference for blended mode of teaching. 203 (71.0%) of students showed preferences for non-interactive learning methods like slide share and YouTube videos. 180 (62.9%) cited that lack of personal interaction with the teacher followed by access to internet 67 (23.4%).

## OBJECTIVES

- 1) To assess the perceptions of nursing students towards online leaning.
- 2) To find out the association between perception regarding online learning in nursing education among undergraduate nursing students with their selected socio demographic variables.

## HYPOTHESIS

**Ho-** there will be no association between perception of online learning and socio demographic variables of undergraduate nursing students.

**H<sub>1</sub>-** There will be significant association between perception of online learning and their selected socio demographic variables of undergraduate nursing students.

## METHODOLOGY

A descriptive research design was used to assess the perception of online learning among undergraduate nursing students and their selected socio demographic variables. 50 undergraduate nursing students were selected using random sampling technique from selected Desh Bhagat University School of Nursing, Mandi Gobindgarh, Punjab.

A self structured online questionnaire via Google form is used for data collection. The questionnaire was divided into three parts: Socio- demographic data, leaning resources, learning schedule and five point likert scale on perception of online education was used. The google form link was sent by e-mails to the nursing students. electronic consent was also taken to be filled up by the students. Before administering the tool electronic informed consent was taken from all participants Reliability was calculated by Cronbach's Alpha. Content validity was evaluated by 7 experts and the Cronbach's Alpha value was 0.88. Data was analyzed by descriptive (frequency and percentage) and inferential statistics (chi square) through Statistical Package for Social Sciences (SPSS 20).



**RESULTS:** The data was analyzed and interpreted according to objectives by using descriptive and inferential statistics.  
**Distribution of B.Sc. nursing students according to Socio- Demographic data.**

**SECTION-A**

**SOCIO DEMOGRAPHIC DATA**

**Table No. – 1 Distribution of B.Sc. Nursing students according to Socio- Demographic data**  
**N=50**

Variables	Frequency	Percentage
<b>Gender</b>		
Male	23	46%
Female	27	54%
<b>Age</b>		
Below 20	15	30%
21-25	20	40%
26-30	10	20%
Above 30	5	10%
<b>Residence</b>		
Village	29	58%
Town	6	12%
City	15	30%
<b>Year of Bsc Nursing</b>		
First year B.Sc. Nursing.	25	50%
Final year B.Sc. Nursing.	25	50%
<b>Religion</b>		
Hindu	35	70%
Muslim	5	10%
Sikh	5	10%
Others	5	10%
<b>Digital devices</b>		
Smart phone	49	98%
laptop	1	2%
<b>No. of Online classes per day</b>		
Less than 2	5	10%
2-4	26	52%
4-6	16	32%
More than 6	3	6%
<b>Duration of each class</b>		
Less than 40 minutes	28	56%
41-60 minutes	19	38%
More than 60 minutes	3	6%
<b>Duration of breaks</b>		
No break	13	26%
Less than 10	10	20%
11-20 minutes	15	30%
21-30	9	18%
More than 30 minutes	3	6%



## SECTION B

**Frequency and percentage distribution of perception of online nursing education among undergraduate nursing students.**

**Table No. - 2 Frequency and percentage distribution of undergraduate nursing students according to perception of online nursing education.**

Perception of online nursing education	SA(5)	A(4)	U(3)	DA(2)	SDA(1)
Online -Learning should only be used for the distribution of notes over the internet.	3(6.0%)	5(10%)	7(14%)	14(28%)	21(42%)
Online classes are not interesting.	2(4.0%)	5(10%)	11(22%)	17(34%)	15(30%)
Online learning makes me lazy and will have impact on my performance when it continues.	2(4%)	4(8%)	4(8%)	23(46%)	17(34%)
I miss classroom lessons.	3(6%)	1(2%)	8(16%)	16(32%)	22(44%)
Online learning makes isolated me from social life.	3(6%)	5(10%)	13(26%)	15(30%)	9(18%)
Online learning classes makes me lost of interaction with my classmates.	2(4%)	7(14%)	11(22%)	16(32%)	14(28%)
Online classes lack timely feedback from instructor.	1(2%)	6(12%)	14(28%)	20(40%)	9(18%)

I am satisfied with how fast I have adjusted to learning.	11(22%)	6(12%)	7(14%)	18(36%)	8(16%)
Online learning makes me isolated from my family.	2(4%)	5(10%)	15(30%)	19(38%)	9(18%)
I feel asking questions and clarifying doubts is easier in online classes.	3(6%)	4(8%)	12(24%)	26(52%)	5(10%)
Online -learning cannot compensate for practical education and seminars.	12(24%)	20(40%)	6(12%)	4(8%)	8(16%)
Online -learning is a complete waste of time for health sciences students..	3(6%)	11(22%)	17(34%)	12(24%)	7(14%)
I feel deprived because of the lack of practical education.	4(8%)	23(46%)	12(24%)	4(8%)	7(14%)

## DISCUSSION

Present study has explored the perception of undergraduate nursing student's regarding online learning in selected Desh Bhagat University School of Nursing, Mandi Gobindgarh, Punjab.

Regarding socio demographic data

The present study result showed that majority 54% nursing students were females, 40% participants belongs to age group 21-25 years, 58% students reside in village areas, 50% students study in first year and second year respectively and 70% nursing students belongs to Hindu religion. Majority 98 % of students had their own android phone and 2% had laptop for attending online classes, 51 % student had two to four online classes in a day , 57% having less than 40 minutes and 32% students had 41-60 minutes duration of each class, 26 % had no breaks and 19 % less than 10 minutes and 49% stated that they had sometimes and 30% rarely interacted with teacher during online classes.

The research study findings were supported by Singh H et al. (2021) majority (62%) nursing students were females, (59.6 %) students reside in village areas, duration of each class was

significantly higher in medical students compared to nursing students, breaks between classes were infrequent 40% of the students reported that they had no breaks between classes and 66% students had no adequate time to interact with teachers.<sup>13</sup>

The presents findings regarding perception of online classes among nursing students were that Majority (64%) students stated that online classes are interesting and (70%) not only meant for distribution of notes, whereas majority 80%, opined that they do not feel lazy, 56% isolated from their family, 48% isolated from social life and 60% had adequate of interaction with peers some had less interaction, 48%.majority students perceived that online classes isolated them from social life. only 14 % opined that they lack timely feedback from instructor, majority 52% students had good communication with teachers, 52% they feel satisfied and adjusted to online classes, 79% do not miss class room lectures , 54% students worried about lack of practical education, 14 % felt easier while 62 % had difficulty to clarify questions and doubts than regular classes, 30% had opinion that online classes were effective whereas 38% opined complete waste of time. Overall, majority nursing students had a positive perception regarding online learning These findings are supported by Mohalik R, Sahoo SS et al



(2019) conducted study to assess the student teachers e-readiness and perception towards online learning, India. The result revealed that student have e-readiness with digital, online classes were lacking teacher –students and student-student interaction, majority student feel stressed, isolated due to online learning and was not agree that curriculum can be transacted effectively through online mode.<sup>11</sup>

Similar findings were also supported by Ahmed Alsoufi A , to assess the Attitudes through questions on the applicability and usability of e-learning in medical schools. The results showed that (64.7%) disagreed that e-learning applied easily, while 54.1% agreed that interactive discussions are achievable by means of e-learning, only 21.1% agreed that e-learning can be used for clinical learning, whereas 54.8% disagreed with this. In the present study there was no significant association found between perception of nursing students regarding online classes with gender, age, residence, class of the study, and religion.

The findings are supported by Pujalik L et.al incorporating e-learning as a tool for medical education in India: Investigating student. The results showed that perceived usefulness, intention to adapt, distant use of e-learning, ease of learning and technical support were 3.1, 3.1, 3.8, 2.9, and 2.9 respectively. Overall, 58.9% had a favorable attitude regarding e-learning.. There was no significant association of attitude regarding e-learning with selected socio-demographic variables.

### LIMITATIONS

The study was limited to 50 undergraduate nursing due to time bound. However, the present study suggested that the perception factors are important and should be studied to enhance the nursing student's perception regarding online learning.

### RECOMMENDATIONS

1. A similar study can be conducted on a large sample size in other states for the generalization of findings.
2. A study may be conducted on other factors which affecting online learning of undergraduat nursing students.

### CONCLUSION

This study concluded that under graduate nursing students had a positive perception regarding online learning. Ensure adequate and sufficient availability of digital resources such as e-books, e-notes, you tube. The stakeholders, educator should consider, ICT infrastructure, instruction, motivation, communication, content and holistic health while imparting online education. There should be guidelines (number of lasses/day, length of each class, break between classes, curriculum, etc) to improve the retention of students and reduce health problems. Continuous feedback from teachers and students will be required to make e-learning effective.

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# AYURVEDIC APPROACH TOWARDS PCOS AND ITS MANAGEMENT THROUGH PANCHAKARMA

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## ABSTRACT

Polycystic ovarian syndrome (PCOS) is an endocrine disorder, which constitutes the most prevalent cause of infertility in women, with increasing incidence day by day affecting one in seven women. It affects the ovaries due to imbalance of reproductive hormones causing ovarian cysts, causing problems like infertility, insulin resistance, and type 2 diabetes. Objective of the study is to understand PCOS through Ayurvedic Samhithas and its clinical management. This paper gives an idea for Ayurvedic approach towards PCOS and its suitable Panchakarma treatment according to different presentation and duration. This paper deals with line of treatment that includes medohara, grantihara chikitsa, since it involves cyst formation and also vatanulomana for proper apana vayu regulation and in correcting menstrual irregularity. And in chronic conditions more than some years urdhwa, adhoghata shodhana, yoni prakshalana, garbhasaya shodhana followed by shamana chikitsa yields a good result.

**KEYWORDS:** PCOS, medahara chikitsa, grantihara chikitsa, vatanulomana, apana vayu, shodhana, shamana.

## INTRODUCTION

Polycystic ovarian syndrome (PCOS) is an endocrine disorder, which constitutes the most prevalent cause of infertility in women, with increasing incidence day by day affecting one in seven women. "Infertility is "a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse" according to (the WHO-ICMART glossary) and (Trends in Prevalence). [1,2] The Incidence of infertility is 8-12 % of couples during their reproductive lives. There are nearly 20 million infertile couples in India. [3] PCOS is one such metabolic disorder and a more severe form of PCOD can lead to anovulation where ovaries stop releasing eggs and ultimately affects fertility in women. It affects the ovaries due to an imbalance of reproductive hormones causing ovarian cysts, causing problems like infertility, insulin resistance, type 2 diabetes, heart disease, high blood pressure, and endometrial cancer in later stages.

## CAUSES OF PCOS

The possible causes according to modern science are excess insulin production, excess androgen production, low-grade inflammation, and heredity. Excess insulin levels in the body might increase androgen production (a male hormone which is very less in females) that causes difficulty with ovulation. The ovaries produce abnormally excess androgen hormones that can lead to acne and hirsutism. As per a recent study, females with

PCOS are having low-grade inflammation that causes increased levels of androgen production which can lead to blood vessels or heart problems. Also, certain women with PCOS show certain genetic correlations.

*Nidana* according to Ayurveda are *atimatra* (eating in excess), *akala* (untimely intake of food), *ahita bhojana* (incompatible foods) leading to *annavaha srotodushti*; *Guru* (heavy for digestion), *sheeta* (cold items), *atisnigdha ahara* (excessive unctuous food) followed by *samasana* (continuous sitting) causing *rasavaha sroto dushti*; *Chintyayaam cha ati chinthanat* (excessive thinking and worry), *Rithou anaharam* (not following seasonal foods), *virookshanam* (excessive food items that are drying consistency), *Vegavinigraham* (controlling natural urges), *mitya vihara* (unhealthy practises) such as *divaswapna* (day sleep), *ratri jagarana* (awakening at night) and *yonidosha* (disorders of uterus and menstruation).

## PATHOPHYSIOLOGY

High levels of LH and low levels of FSH causes low chance of healthy follicles in the ovary and low 'Estrogen' from day 0 to day 5. Due to no estrogen secretion in the blood, there is no dominant follicle and thus no mature egg from day 6 to day 14. Follicle does not break due to low hormones, immature eggs can't travel to the fallopian tubes, uterus, and cervix that supposed to happen normally on day 15. There is no presence of egg in the uterine membrane so cervical lining becomes dry



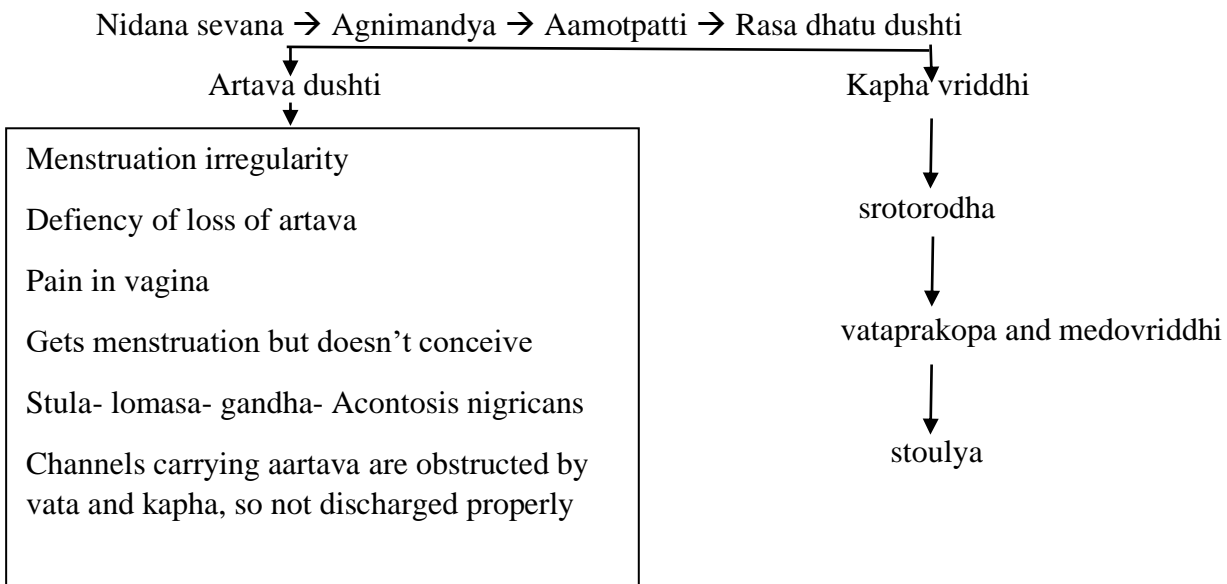
and unhealthy from day 16 to day 28 during the luteal phase. The uterine lining is normal but no periods occur. There remains a pathology of abnormality of the HPO Axis, Hyperinsulinaemia arising from receptor dysfunction, Hyperandrogenemia (Adrenal/Ovarian), and Genetic factors.

Due to insulin resistance and its elevated level, the ovaries disturb that rises androgen level which leads to anovulation [4] Anovulation Disorders are divided into 3 groups by the World Health Organization. Group I Disorders: Hypothalamic failure leading to Hypogonadotropic hypogonadism which is responsible for 10% of anovulation cases. Examples: Pan hypopituitarism, autoimmune destruction, adenoma, or infections. Postpartum hemorrhage or head trauma can also cause hypothalamic failure that is irreversible or transient. Group II Disorders: HPO axis dysfunction which is responsible for 85% of anovulatory cases. The most common cause of female infertility is ovulatory dysfunction, in which a variety of hormonal factors interfere with the complex sequence of hormonal events required to trigger ovulation. Problems can occur at any point in this pathway (hypothalamus, pituitary, ovary) and can lead to failure to ovulate. The most common cause of chronic ovulatory dysfunction is Polycystic Ovarian Syndrome, or PCOS, which interferes with ovulation at multiple points. Examples: PCOS Immature Hypothalamic-pituitary-ovarian Axis. It is

understood, hyperandrogenism is the result of the balance derangement between Androgen hormone levels and LH/FSH levels. The exact mechanism for how this is caused is not entirely understood, but research supports the thought that the peripheral conversion of estrogen into androgens by adipose tissue is one mechanism for elevating serum androgen levels and depleting estrogen. Hyperinsulinemia secondary to insulin resistance (IR) is thought to play a role in PCOS. During puberty, it is common for a degree of Insulin resistance to be seen resulting from Insulin-growth factor-1 (IGF-1). This process is considered largely normal if IR is confined to glucose metabolism. In women with PCOS, IR affects multi-systems including the liver resulting in decreased sex-hormone-binding globulin (SHBG) synthesis. Reduced SHBG levels contribute to the elevation of free androgens, further deranging the hormone balance.

Anovulation that presents with irregular menstruation in adolescent females as a result of an immature hypothalamic-pituitary-ovarian axis can be a common, expected finding. An anovulatory pattern of menstruation can be seen during the first year after the onset of menarche and persist till 18 years of age. The HPO axis is believed to have reached maturation. Persistent irregularities should be further evaluated for “non-functional” causes of inoculation.

**Samprapti: [5]**



In a survey of sleep patterns during the Steps to Swasthya program for PCOS, nearly 40% of them prefer to study for 4-5 hours at night as their home environment is quieter and more conducive for studying during those hours. The others may simply engage themselves in watching TV, playing video games or are busy chatting with friends during the wee hours of the night. [6] Chronic loss of sleep causes overeating, obesity, type 2 diabetes, and metabolic perturbations. [7]

**TO DIAGNOSE PCOD OR PCOS**

A pelvic examination must be performed to look for masses, anomalies, or any growth in the reproductive organs. Choose blood tests that will aid in understanding hormone levels, such as glucose tolerance tests and fasting lipid profiles (to evaluate levels of total cholesterol, HDL, triglycerides, and low-density lipoprotein, or LDL). To examine the uterine lining, the size of the ovaries, and ovarian cysts, imaging techniques such as ultrasound imaging can be used.





Apart from these following additional tests, may be performed to look for complications: routine blood pressure, glucose tolerance, cholesterol, and triglyceride levels checks; screening for depression and anxiety, obstructive sleep apnea (OSA) screening, Follicular analysis to check for ovulation, follicle size, and number on days 15 and 17. Finally, rule out prolactinemia and hyperlipidemia.

Apart from the above, additional tests to check for complications may include- Periodical monitoring of blood pressure, glucose tolerance, cholesterol, and triglyceride levels, Screening for anxiety and depression, Screening for obstructive sleep apnea (OSA), Follicular study on the 15<sup>th</sup> day, and 17<sup>th</sup> day to check for ovulation, follicular number, and size. At last rule out –hyperlipidemia and prolactinemia.

Elevated levels of Testosterone and androstenedione- by LH stimulation, Estrone, DHEA- S- Dehydroepiandrosterone-androgen pathology, LH and FSH ratio =3:1, Hyperinsulinemia- frequent in obese PCOD, (fasting insulin to glucose ratio<4.5, abnormal glucose tolerance test) leads to increased ovarian production of androgens are noticed in PCOD and PCOS conditions.[8] Low levels of FH, Sex binding globulin- by hyperandrogenism and obesity, estradiol is also noticed.

### AYURVEDIC UNDERSTANDING

Ayurveda attributes the disruption in healthy ovulation to Kapha and VataDosha imbalances. Akasha Mahabhuta, or Space, is represented in the female body by the hollow space of the reproductive cavity. During the ovarian cycle, Vata is responsible for follicular movement, the rupture of the ovarian wall releasing the matured ovum and the movement of fimbriae that guide the ovum through the fallopian tubes and into the uterus. Kapha provides nourishment for the uterus, aids follicular growth, and the development of (a fertilized) egg into a foetus. What we understand as hormones, represent the ‘fire’ elements of human tissue, and therefore, Pitta Dosha, which stands for transformation in the way that Vata stands for mobility, and Kapha for consolidation and ‘structure.’ Sheeta and picchila qualities of an imbalanced Kapha affect Dhatavani and Jataragni, which in turn affects the metabolic rates of the tissues, or dhatus. The dhatus affected in PCOD are rasa dhatu, medha dhatu, and artava upa dhatu.

In ayurveda it can be understood in terms of Pusphaghni jataharani (unovulatory menstruation), Vandya, Anartava (primary amenorrhea), Artava kshaya, Nastartava, Alpartava (hypomenorrhea), Arajaska (diseased endometrium), Ksheenartava (oligomenorrhea), Granthi bhoota artava (clotted mensus), Asrighdara (menorrhagia), Vata pitta rajodushti (infection of the genital tract, amenorrhea), Raktaja rajodushti (infection of the genital tract, abnormal hemorrhage), Vataja rajodushti (chronic salpingo porosis, dysmenorrhea).

In the Revati Kalpaadhyaya of Kalpasthana in the Kashyapa Samhita, Acharya Kashyapa describes Pushpagni Jataharini, where Jataharini is a set of illnesses that affects women at various phases of life when they are of reproductive age, as well as their fetuses, newborns, and children. Some Jataharinis are

described as having amenorrhea or irregular menstruation, having more similarities with features of PCOD/PCOS. Pushpagni Jataharini, according to Kashyapa, is a Sadhya Jataharini, a condition in which women experience unovulatory menstruation (Vritha Pushpam), Yathakalam Prapashyati (i.e., menstruation occurs at regular intervals), fatty cheeks covered in hair, Sthula Ganda (a sign of obesity), and Lomasha Ganda (hair present on the face/hyperandrogenism).[9]

PCOD/PCOS at times can also be related to a condition called Anartava where the doshas obstruct the arthava vaha strotas, thus artava is destroyed and is not released on a monthly basis. The passage of artava is obstructed by aggravated vata and kapha, which prevents the flow of menstrual blood.

Dosa wise presentations:

Patients with a kapha dominance may have weight gain, hirsutism, or diabetic tendencies. Patients with a Pitta dominance have hair loss, acne, uncomfortable menstruation, clots, and cardiac issues. Patients with a vata dominance have painful menstrual cycles, sparse or little menstrual blood, and severe menstrual irregularities. Due to kapha avarana to vata, spotting can be noticed.

### CHIKITSA

The primary treatments for PCOS/PCOD, avoidance of causative factor (nidana parivarjana) followed by panchakarma procedures such as Vamana, Virechana, Nasya, and Vasti, which are included in the shodhana chikitsa. These purification therapies aid in the body's purification and detoxification. The accumulation of impurities and toxins in the body results in srothorodha (channel blockage), which causes menstruation irregularities and PCOS. Detoxifying the body is crucial, thus these treatment modalities play a vital role.

Shodhana chikitsa:

Shodhana includes sarvadehika shodhana, such as procedures like the vamana, virechana, vasti, etc., and sthanika shodhana comprises treatment that only affects a certain place, such as yoni prakshalana, yoni pichu, and utara vasti.

1. Vasti (therapeutic enema):

It is well recognized to clear obstructions in the way and improve genital tract responsiveness, helpful for anovulatory cycles, uterine antagonism, and nidation problems. To increase physiological vigor and uterine antony, balya, a medicated ghee, and oil, can be utilized which is called as Matra vasti. Matra Basti after absorption reaches into the systemic circulation and the concept of CNS resembles Enteric Nervous System (ENS) the endogenous opioids in the ENS especially endorphins (βendorphin) are influenced which will affect GnRH release regularizing HPO axis regulating the ovarian cycle and ovulation. Endogenous opioids are a group of peptides, which play an important role in the ovarian cycle through the inhibitory effect on GnRH secretion. The Basti stimulates the ENS generates a stimulatory signal for CNS causes stimulation of the hypothalamus for GnRH and pituitary for FSH and LH with the help of neurotransmitters. Basti given through the rectum will stimulate parasympathetic nerve supply which helps for release of ovum from the follicle in the ovary. [10] Thus for apana vayu correction and regulating periods, maintaining endometrial thickness, increasing the



receptivity of genital tract, removing the obstruction in passage vasti plays a major role in PCOS and infertility.

#### 2. Vamana (therapeutic emesis):

Vamanacan be administered in avarana (obstruction conditions), bahudosha avastha, kapha medo vriddhi, in obese pcod symptoms, since it causes negative feedback of adipose tissue and help in stimulation of estrogen production in bahudoshavasta.

#### 3. Virechana (therapeutic purgation):

When ovarian follicles are immature and small, they are numerous in number, to expel the excess follicles and regulate stimulation and regulate stimulation in bahudoshavasta by negative feedback mechanism on adipose tissue and helps in boosting the body metabolism. Thus particularly affecting liver metabolism aids in weight loss. This controlled metabolism will help to maintain the regulation of the HOP Axis and control the conversion of estrogen to androgens. Additionally, it improves the quality of rutu, kshetra, ambu, and beeja by increasing Jataragni and Dhatwagni, Shroto shodhana, and anulomana, and regulating the production of Rasaadi Dhatus.

However, since a certain amount of pitta is necessary for the development and menstrual cycle, caution should be exercised to avoid pitta kshaya.

#### 4. Nasya (medication through nasal route):

The use of Narayana Taila Nasya may stimulate olfactory nerves and limbic system, which stimulates hypothalamus leads to GnRH secretion in the pulsetile manner, leading to ovulation. Shatavari, tilataila also having phytoestrogenic or oestrogenic properties like narayana taila which regulates the activity of gonadotropin secretion. Pratimarsha nasya with adraka swarasa is also recommended. Nasya karma plays a major role to generate follicles, stimulate ovulation, rupture of the ovary, after removing avarana (obstruction). Nasya can be used from ovulation after the tenth day for effective outcomes, while it is not preferred prior to removal.

Sthanika shodhana:

Uttara vasti is widely practised for fertility issues, blockage in fallopian tubes, garbhashaya shuddhi, to regularize the imbalanced doshas. It helps in formation of garbha, vandyatva conditions, yoni roga, remove sanga of artava vaha srotas, rupture of ovary.

Mahanarayana taila Uttara vasti is the most commonly used in conditions of infertility. Hingutrighuna taila can also be a choice as to remove tubal adhesions. Best time for administering uttara vasti is follicular phase before ovulation. But care should be taken in cervical erosion.

Other sthanika shodhana procedures like yoni prakshalanam can be beneficial in gynecological disorders, treat inflammation, erosions, infertility and provide strength to vaginal muscles. Triphala Kashaya is widely used for prakshalana. To alleviate the pathology, Udwartana chikitsa or any variants of medohara chikitsa may be employed.

The pathophysiology that leads to PCOS differs slightly in obese and lean persons, thus the treatment options also vary depending on the symptoms and type of PCOS.

Line of management in obese PCOD:

Deepana, pacana, and ushna veerya dravyas are advised to be used first. Since there is a kaphaavarana vata and medovriddhi, kaphaghna vatahara chikitsa, Stoulya chikitsa or medhohara, lekhanaya chikitsa, as well as pramehaghna chikitsa, are

adopted more frequently in practice. It is possible to correct menstrual abnormalities by implementing vatanulomana, Shodhana, Shamana, and Shothahara, which also helps in reducing BMI. Finally, Rasayana, vrishya, and Daiva vyapasraya chikitsa can be adopted.

Line of management in lean PCOD:

In lean PCOD higher mental functions are more affected due to HPO axis affected

Deepana pacana is preferred at initial stages. It is also advisable to look for the factors like

1. Menstrual irregularity due to anovulation by ruling out by presence of fluid in POD bag. The stimulation for anovulation by means of shodhana or shamana should be adopted.
2. Endometrial thickness needs to be checked since a thin endometrium than 8mm can cause infertility. Since endometrial thickness below a range of 6 to 8mm showed negative predictive value for IVF outcomes. [11,12] Endometrial thickness can be enhanced by Vasti and shatavari grita, shatavari churna.
3. Follicular number, size and rupture should be examined. Check for the root cause, and if there is an undeveloped follicle, tikshana nasya can assist in the formation of follicles and trigger the HPO axis. Virechana therapy assists in regulating stimulation and removing follicles in a more effective manner if the number of follicles is high and they are smaller in size. Trivanga bhasma and shatavari prayoga are examples of Shamana yogas that can be administered to boost follicular size and encourage rupturing of the follicle. It is recommended to use Uttara Vasti and Nasya methods to stimulate follicular rupture by correcting the HPO axis. To enhance the functioning of the uterus, shamana chikitsa will be combined with sneha vasti. To increase metabolism, one can use the shamana-tikta pacana method. The treatment that relieves vata and pitta, and eliminates granthi.

### Modern Technology and Ayurvedic Management

Modern management includes use of

1. Insulin sensitizers like metformin (Glucophage) to restore menstrual cycle and induce ovulation in PCOS by decreasing glucose production in liver.[13] It reduces insulin resistance, androgens, LH, atherogenic lipids. Metformin and Troglitazone are used as it is an antidiabetic agent found recently to have promising effects on testosterone levels.[14] In Ayurveda PCOS an arthava vyapad having medavridhi due to kapha vriddhi and srotorodha is treated in lines of Prameha chikitsa and stoulyahara chikitsa that we correlate to obese PCOD.
2. Steroid hormones and anti-androgens (OCPs) for restoration of menstruation- does androgen suppression by stimulating sex-binding globulin that reduces bioavailable androgen. Permanent removal of hair by electrolysis or laser ablation after the suppression of hyperandrogenism is advised in modern science. Ayurveda focuses on regulating the menstrual cycle in accordance with normal physiology; it stimulates the efficient functioning of



three phases of the menstrual cycle beginning with the follicular phase, ovulation phase, and luteal phase. As mentioned earlier luteal phase is controlled by vata the proper functioning of vata is to be taken care for normal menstrual flow. So vatanulomana drugs are given that channelizes the vata towards the proper direction. Followed by other panchakarma treatments that promote estrogen production, cause negative feedback of adipose tissue, and regulate body metabolism.

3. Assisted fertility with clomiphene citrate or gonadotropins for ovarian stimulation. It is not advisable to give CC more than 12 cycles and sensitivity to these drugs should be taken care of. In Ayurveda to stimulate the proper functioning of the HPO axis and thereby induce ovulation, tikshna nasya places a major role. It triggers the blood supply to the brain and activates the hypothalamus by nerve endocrine neurovascular stimulation and through the lymphatic system.
4. Laparoscopic ovarian drilling/ follicular aspiration is a surgical method adopted when conservative methods fail to produce ovulation. It is a procedure where several punctures are made in polycystic ovaries. It is associated with risks of periovarian adhesions and the possibility of ovarian failure. Whereas in Ayurveda, virechana karma acts on the body's liver metabolism and helps to maintain HPO axis regulation that controls the conversion of estrogen to androgens, by negative feedback mechanism on adipose tissue that helps in boosting the body metabolism and to expel the excess immature follicles.
5. Intrauterine insemination is an initial step in unexplained infertility and male factor infertility. It is a procedure consisting of the placement of a transcervical catheter with 0.3-0.5 ml of washed, processed, and concentrated sperm into the intrauterine cavity. It is usually done after controlled ovarian hyperstimulation with gonadotropins or clomiphene, timed out about 34-36 hours following hCG injection. A minimum of 3 and a maximum of 6 IUI cycles are attempted.[15] The demand for herbal medicines has increased due to high economic costs and a high number of unfavorable effects associated with the use of allopathic medicines. Since ancient times, herbal plants remain a major source of medicinal preparations. [16] In Ayurveda shodhana procedures vamana, virechana, matravasti and uttara vasti can be adopted for total detoxification, removing aggravated doshas and boosting body metabolism and cleansing and strengthening uterine channels and regulating the normal physiological functions of the body.

## DISCUSSION

PCOS can be correlated to an artava vyapad according to dosha predominance and presentiaons, it is a rasa pradoshaja vikara, caused mostly by Kapha and medaja vridhhi, where adharma (Faulty Life style), may be the main reason.

General line of treatment involves

1. Nidana parivarjana- involves identifying and avoiding the causative factor by examination, detail history taking and investigations.
2. Langhana and ama nirharana – before starting panchakarma done as a poorvakarma, since there is a avarodha pathology doing exercise(vyayama) and following diet and lifestyle is essential along with the treatment.does correction of agni-jataraghi and dhatwaghi.
- 3.vatanulomana and deepana- for proper channelising of vata in its direction.
- 4.Manasaupasadana- since HPO axis imbalance and higher mental functions are also affected it is essential.
- 5.Koshtashodhana and sroto shodhana- Vamana, Virechana, Uttara vasti, Nasya for proper Shuddhi and stimulation of menstruation.
- 6.Rasayana- vrishya- vaejekarana drugs  
 Excess androgen levels in PCOS can cause symptoms including hirsutism, acne, or alopecia, which might vary from patient to patient. Addressing insulin resistance, addressing obesity, lowering cholesterol, and addressing hormonal imbalance is to be followed. And following seasonal Panchakarma for preventive purposes.  
 Where shodhana plays an important role in removing the avarana pathology and retaining normal physiology, also helps in metabolic correction leading to a healthy menstrual cycle. Shodhana followed by shamana and rasayana vajeekarana along with proper ahara (diet), vihara (lifestyle corrections and exercise) gives excellent results in PCOS/PCOD.

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# UNDERSTANDING THE ESSENCE OF PUBLIC ELEMENTARY SCHOOL TEACHERS' EXPERIENCES EMPLOYING SELF-LEARNING MODULES DURING COVID-19 PANDEMIC

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## ABSTRACT

*This qualitative study was undertaken and employed hermeneutic phenomenology. It described the essence of the experiences of the grade six teachers in Malapatan Central Elementary School in employing self-learning modules during the COVID-19 pandemic. Five participants underwent an in-depth interview to discover their lived experiences analyzed thematically. The data gathered were categorized into three main themes: coping with the difficulties in the new normal through a passion for teaching, optimism in the face of adversities, and alienation from job, pupils, and from oneself. The study concluded that massive, sudden changes brought by the COVID-19 pandemic caused difficulties in the lives of the teachers as they were separated from their actual roles as educators, even leading to alienation from their profession, their pupils, and themselves. Nevertheless, the teachers remained optimistic, determined to find ways to cope with these challenges because deep within their hearts lies their passion for teaching.*

**KEYWORDS:** *Experiences, teachers, self-learning modules, covid-19 pandemic, Philippines*

## INTRODUCTION

The rapid proliferation of coronavirus disease (COVID-19) has affected the Philippine economy and other sectors. The pandemic has severely impacted the country's educational system. Classes were suspended immediately at all levels in most regions as early as the second week of March 2020 (CNN, 2020). The Department of Education presented blended learning as an alternative for the new normal in the educational system. Blended learning combines various distance learning modalities such as printed modules, offline digital modules, online, and TV and Radio-based instruction (Esguerra, 2020; Sahoo, 2020; Shivacheva and Nedeva, 2016; Schneider and Council, 2021).

Even before the pandemic, the education sector widely used blended learning worldwide. There is a large amount of literature about blended learning, including Padmapriya's (2015) study about self-learning modules. In the study, the proponent sought to determine the effectiveness of self-learning modules on secondary students' achievement. The proponent used an experimental method with a pretest-posttest non-equivalent group design.

One group design contains students who used the modular approach, while the other used the activity-oriented method. In the findings, students who used the modular system achieved higher means scores than those who used the activity-oriented method. This study revealed that school administrators should take necessary steps in giving teachers special training in

developing modular packages. Although there have been numerous studies on the effectiveness of self-learning modules in student learning, there were few studies on the experiences of those who use them. Additionally, the literature on using self-learning modules during a pandemic has been limited because the world rarely experiences a pandemic.

Hence, the purpose of this undertaking was to unearth the experiences of teachers who used the self-learning module during the school year 2020-2021. Particularly relevant are the experiences of public elementary school teachers. The study's specific goal was to learn about the participants' attitudes and feelings toward using self-learning modules during COVID-19 learning and how the self-learning modules affected their teaching. In the Philippines, the self-learning modules were the most sought-after modality because of digital inequality.

Accordingly, this study expected participants to talk more about the inconveniences they had experienced in employing the self-learning module delivery of learning. Furthermore, the researcher sought the ones they experienced during the printing of the modules and the physical delivery or distribution and retrieval of the modules to respective pick-up points. Printing and photocopying machines are limited and not updated in most public schools. In the physical delivery or distribution and retrieval of the modules, for apparent reasons, the participants have a high chance of exposing themselves to the virus during these phases.



Moreover, despite the inconveniences caused by the modules, this study expected participants to view self-learning modules as a convenient way of teaching, mainly because all the lessons are in the modules.

### Purpose Statement

This study aimed to grasp the essence of grade six teachers' experiences using self-learning modules during the COVID-19 pandemic at Malapatan Central Elementary School. This study aimed to get the meaning of their experiences using self-learning modules in classroom instruction during the COVID-19 pandemic. For educators, the transition from traditional face-to-face learning to online learning can be a completely different experience. They must adapt to it with few or no other options available. Educators worldwide have felt the unexpected ripple effect of the COVID-19 pandemic as schools have been closed to deal with the global pandemic. While governments, frontline workers, and health officials work tirelessly to contain the outbreak, education systems strive to continue providing high-quality education to all students during these trying times. Many teachers have experienced psychological and emotional distress, rendering them unable to engage in productive activities. Hence, the teachers lived experiences should undertake an investigation.

### Research Questions

This study aimed to understand the essence of the experiences of grade six teachers of Malapatan Central Elementary School in employing self-learning modules during the COVID-19 pandemic. It sought to answer the following questions:

1. How do participants describe the essence of their experiences employing a self-learning module in teaching during the COVID-19 pandemic?
  - 1.1. How do the participants view the essence of their experiences employing self-learning modules during COVID-19 learning?
  - 1.2. How do the participants feel the essence of their experiences employing self-learning modules during COVID-19?
  - 1.3. How does the essence of their experiences employing self-learning modules affect their teaching?

### Theoretical Lens

Marylene Gagné, Edward Deci, and Richard Ryan's (2018) Self-Determination Theory (SDT) is a broad theory of human personality and motivation that focuses on how individuals interact with and influence their social environment. SDT defines intrinsic and extrinsic motivation and explains how these motivations affect situational responses in various domains and social, cognitive, and personality development. SDT is grounded humanistic assumption that people naturally and actively strive for self-organization and growth.

In other words, people strive to broaden and comprehend themselves by incorporating new experiences,

cultivating their needs, desires, and interests, and connecting with others and the outside world. People can be dominated, divided, and alienated if their core psychological demands for autonomy, competence, and relatedness are disrupted by an inadequate social context, according to SDT. Due to this person-environment interplay, people become either engaged, curious, connected, and whole, or demotivated, ineffective, and detached (Ryan and Deci, 2000). The theory became the anchor on the recommendations of this study.

### REVIEW OF RELATED LITERATURE

This section presents the related literatures which are useful and necessary in any research and intensive undertaking. These provided significant data and additional needed information obtained from books, journals, unpublished thesis, and internet sources based on the results of several studies relative to this endeavor.

### Challenges in the Implementation of Modular Distance Learning

The shift from face-to-face teaching and learning to distance learning has received widespread support from student teachers in light of the pandemic. However, because of the quick implementation of online learning, learners and teachers were unprepared mentally, financially, socially. On the technical aspect, even teachers encountered difficulties related to techno pedagogical approaches. Also, the challenge is primarily within individuals; this deficiency of unpreparedness of human resources to the sudden change of environment and mode of education. (Sahoo, 2020; Shahnama, Yazdanmehr, and ElahiShirvan, 2021).

According to one study, the main challenges for teachers are a lack of required facilities and infrastructure, low technological literacy, and poor internet quality. The interview also revealed that teachers considered improving technological literacy and providing necessary facilities to be the top priorities in addressing the challenges (Mousavi, Saidi and Mahmodi, 2021).

Furthermore, taking into account the categories and barriers during the pandemic, the challenges faced by institutions are divided into technological, pedagogical, and social challenges. Moreover, distance education promotes student-centered learning and self-learning. It provides many opportunities to educational institutions, such as scalability, research innovations, flexible learning, diversity, remote student support, adjustment of assessment methods, the opportunity for innovation, non-academic courses, and changes in pedagogical policies (Gurajena, Mbunge, and Fashoto, 2021; Salyers, Carter, Carter, Myers and Barrett, 2014).

Consequently, one of these required qualifications is digital literacy during the pandemic. Online learning necessitates the effective use of technology and digital or computer skills. Furthermore, individuals with low levels of digital literacy are unlikely to continue benefiting from web-based knowledge in online learning contexts. The term "digital literacy" first



appeared in print at the end of the 1990s, and it is the ability to evaluate information obtained from various sources using computers. Recommendations proposed include literacy and the ability to evaluate the information accessed and solve problems encountered during the process (Ferro, Helbig and Gil-Garcia 2011; Gourlay, Hamilton and Lea, 2014; Hall, Nix and Baker, 2013).

The Philippines' Information and Communications Technology (ICT) is considered a milestone in the educational system. It opens a wide variety of opportunities for teachers and students, such as transferring information, collecting data, and researching. However, most public schools do not have ICT facilities, and most teachers are not ICT literate, resulting in poor student and school performance. Furthermore, access to digital learning is dependent on available equipment and connectivity. (Lorenzo, 2016; Mhlana, Chipangura, and Twinomurizi, 2022; Jacob and OJ, 2021; Usen, 2016).

Hences, DepEd together with the Department of Information and Communications Technology (DICT) collaborated to hold ICT seminars (DICT, 2020). Topics covered in the seminar included creating electronic books (e-books). Moreover, other topics rendered were open education resources and an introduction to programs and applications which are helpful in classroom teaching (Mateo, 2020; Jacob and OJ, 2021; Dharmawan, Muljono, Hapsari, and Purwanto, 2021; Haryudin and Imanullah, 2021).

### Modular Learning

Today, modular learning is the most popular learning method in the country. For the first time, modular learning has been implemented in the Philippines to prevent the spreading of the COVID-19. The teachers' perception of their experiences as unfamiliar and viewing themselves as unprepared is a phenomenon explained by anatomy. Since humans recognize and process familiar people and situations, the brain is less engaged and empathic when someone or something is unfamiliar. It has to exert more effort as well (Hernando-Malipot, 2020; Erniati, Hastuti, Kasmah, and Hasnah, 2020; Rahmawati, and Putri, 2020).

Accordingly, the module is one teaching material that the teachers can use. As a result, it is an organized written learning tool systematically. It contains learning material, methods, learning objectives based on essential competencies or indicators of competency achievement, instructions for self-learning activities. It also provides opportunities for students to test themselves through the exercises presented in the module (Wigati, Maharta, and Suyatna, 2015; Salingay and Lomibao, 2021).

Additionally, the role of printed modular-based learning materials in supporting students' learning is critical. Published modular-based learning materials can significantly improve outcomes by encouraging learning activities. A worksheet, for example, may provide an essential opportunity for a student to practice a new skill learned in class. These materials make it possible for students to learn on their terms.

The printed modular learning materials facilitate the student learning process (Pribadi and Susilana, 2021; Asgar and Satyanarayana, 2021; Yuliani, Wiji and Mulyani, 2021).

The Department of Education (DepEd) suggested that modules include motivation and assessment sections that serve as a comprehensive guide for the teacher's and students' desired competencies. However, self-learning modules may not be practical. First, without a knowledgeable person who can explain confusing or complicated concepts written in the module, the student would have difficulty understanding it. Second, the lack of a standardized system in drafting module content and limited examples differs from one school or region. Third, not every family has access to gadgets and reliable internet service, so social bonds cannot form between students and teachers. Last, the teachers' lack of feedback once modules have been answered and delivered to them (Estrada, 2021; Mgonja, 2021; Nikonova, Sharonov, Sorokoumova, Suvorova, and Sorokoumova, 2016; Panganiban and Madrigal, 2021).

Also, preparing the devices and tools for teaching in the new normal is essential. Effective command in distance learning requires a range of equipment, including computers, laptops, webcams, and internet modems. However, not all teachers have complete devices to facilitate teaching in distance learning. Generally, the standard devices and tools that the participants are preparing are limited only to laptops, desktops, and pocket WIFI. In the current situation, electronic means and digital tools are essential to keep the constant communication among students and teachers, distribute educational materials, and access online platforms (Sadeghi, 2019; Brown, 2020).

According to UNESCO (2020), the Institute for Capacity Building in Africa emphasizes the importance of governments' support for teachers. However, since necessity is the key to its success, this situation may present an opportunity for educators and students to become more empowered, creative, and innovative. Furthermore, online training and webinars were available to educators to continue expanding and effectively supporting and guiding their students with their knowledge and wisdom (Global Peace Foundation, 2020).

Agreeing to the educational theory and practice of Joseph Jacotot, one could teach a subject even if he/she did not even know the topic in the first place (Kotsko, 2013). For Jacotot, teaching is not a matter of expertise but determination. Moreover, elementary teachers must be generalists when teaching different subject matters (Heggart, 2016). It is an essential requirement for elementary school teachers to graduate from general education courses, particularly Bachelor of Elementary Education. For those teachers who have difficulties guiding their pupils on subjects that are not of their expertise, it is essential to design methodologies like evaluations and training in order for them not to jeopardize their teaching.

In the Philippines, Article IV, Section 2 of the Professional Code of Ethics for Teachers, states that each teacher shall fulfill the highest quality education standards. He shall make the best preparations for a career in teaching. Therefore, he should be at his best at all times in the exercise of



his line of work." Meanwhile, Article V states, "Teachers shall, at all times, endowed the spirit of professional devotion, confidence, and belief in one another, self-sacrifice, and service to others" (R.A. 7836).

Passionate teachers are committed to their profession. Beyond their sworn oath, teachers' passions drive them to find ways to impart learning to their pupils. In his study, Serin (2017) emphasized the role of passion as a motivator for high-quality learning and teaching. Passion is the desire to discover and experience new ideas. In addition to that, passionate teachers create effective learning environments to endeavor to increase the learning potentials of their students.

### Coping with the Challenges of the Pandemic

To override the discomfort of unfamiliarity, setting up structures and processes that enhance trust will increase engagement (Pillay, 2014). Before the official implementation of modular learning, schools prepared their teachers for the new normal. Thus, conducting activities such as webinars on topics such as mental health, psycho-social debriefing (Baker, Peele, Daniels, Saybe, Whalen, Overstreet, and The New Orleans, 2021; Cipriano and Brackett, 2020) and the new normal in the Philippines primary education (Luz, 2020).

However, change is inevitable. Sometimes, people know a change will occur. Other times it comes suddenly and unexpectedly. The general population experienced psychological distress due to the COVID-19 pandemic. Responses to Stress model posit that there are three coping dimensions. One of which is voluntary coping (i.e., coping responses that involve conscious effort, e.g., problem-solving, cognitive restructuring) versus involuntary coping (i.e., temperamentally based and conditioned reactions, e.g., emotional numbing, rumination, intrusive thoughts). Voluntary coping responses are viewed as goal-directed efforts to maintain, increase, or alter one's control over the environment or the self. Despite the difficulties they experience, the teachers are finding ways to cope with the changes in the educational system (Dubow and Rubinlicht, 2011; Gelleagan-Alivio, 2021; Castillo, 2021; Gayola and Janer, 2021).

Non-classroom duties are the leading causes of educators' low morale and professional burnout. Teachers added tasks are to serve committees and fulfill administrative duties. These tasks take their time and energy away from helping their learners learn. Hence, teacher morale could suffer due to the persistent stress of meeting educational objectives or changing leadership or policies. Additional professional development may help teachers feel more confident about accomplishing some of these non-instructional tasks (Clark, 2020; Chaplain, 2008; Johnson and Birkeland, 2003; Skaalvik and Skaalvik, 2015).

One of the beneficial consequences for mental health from the current pandemic is the opportunity for personal growth. Moreover, it harmonized community, helping project community members' psychological ties by constructing a sense of community identification and unity during the pandemic, which anticipated increased well-being and reduced depression

and anxiety. Personal growth is an experience of psychological development. Thus, successful management of stress and trauma can lead to personal growth, reinforcing the sense of competence and becoming a protective factor for coping with future stressors (Fegert, Vitiello, Plener, and Clemens, 2020; Zoellner and Maercker, 2006; Modini, Joyce, Mykletun, Christensen, Bryant, Mitchell and Harvey, 2016).

Moreover, teacher morale may suffer due to the constant stress of meeting educational goals or changing leadership or policies. Burnout, even if it is a moderate or significant concern by teachers, with nearly one-quarter indicating that they planned to depart from the teaching profession. As the pandemic dragged on, the adverse effects on teachers' well-being worsened, as evidenced by three-quarters of teachers reporting lower morale than before the pandemic. School principals, too, have reported low confidence and anxiety (Kaufman and Diliberti, 2020; Brackett, Cannizzaro, and Levy, 2020; Will, 2021).

Moreover, the professional development of teachers is essential to the successful improvement of education. The professional development of teachers is the position of the future. Their experiences and the new challenges will be needed to face and to guide all students to a higher level of learning and development. In addition, professional development is a continuous process in which individuals practice specific occupations. Participating in continuing professional development has goals: for instance, they are to help teachers change their perceptions or conceptual understanding, as well as their classroom practices, in order to improve student's learning outcomes. They maximize sustained learning and applicability (Prestridge, 2017; Ibrahim and Kavlu, 2020; Martinet, Gauthier, and Raymond, 2001; Badawi, 2009).

A passionate teacher is defined as someone enamored with the field of knowledge, is ecstatic about the ideas that change the world, and is deeply interested in the potentials and dilemmas of students. Similarly, passionate teachers are enthusiastic about their work. Quality and practical learning require passion. It is a factor that improves teachers' performance and encourages them to achieve higher levels of student achievement. Teachers who are genuinely enthusiastic about their profession are committed to creating an effective learning environment and improving their students' learning potential (Serin, 2017; Fried, 2001; Gelleagan-Alivio, 2021; Benacquisto, 2021).

Also, the COVID-19 pandemic has thrown teachers into an unpredictable situation. The lockdown has sped up the transition from traditional to online learning practices. Avoiding direct contact with others affected relationships, resulting in their mental health issues. Hence, it is critical to facilitate physical activity at home to prevent health problems among teachers in similar situations in the future. Moreover, training programs in blended or online learning practices would be essential for their successful career advancement. (Aperribai, Cortabarria, Aguirre, Verche, and Borges, 2020).





### Perspectives in the Implementation of Modular Distance Learning

The participants' feelings about their self-learning modules experiences are positive and negative. More importantly, these revealed their optimism in the face of adversities. Maintaining a positive outlook in life amidst the current pandemic is essential to move forward. The teachers may experience emotional distress characterized by demotivation, frustration, burnout, confusion, doubt, fear, and sadness. However, they are still determined and resilient, allowing them to continuously provide their services to the learners with happiness, excitement, and a sense of satisfaction. That is why they feel gratitude when other people see their experiences as something that would help them grow and resentment towards those who saw their experiences as irrelevant.

Being a teacher has traditionally been one of the most stressful professions to undertake. However, they are no strangers to feelings of grief. Thus, teacher well-being contributes significantly to job satisfaction and productivity, benefiting student well-being and academic achievement (Spilt, Koomen, and Thijs, 2011; De Nobile, 2017; Gonzalez, Brown and Slate, 2008). Stress and overall health are essential factors in deciding whether or not to stay in class. The reality that many teachers work in environments hostile to their well-being, and indeed, maintaining well-being when potentially exposed to COVID-19 adds additional stress to the daily role of teachers. (Naghieh, Montgomery, Bonell, Thompson, and Aber 2015; Day and Qing, 2009).

Teacher wellbeing is vital. Additionally, teachers who experience demotivation and anxiety are less effective in supporting student wellbeing and outcomes. Even though the teaching profession now faces unique problems and demands from students, families, and a constantly changing system, the COVID-19 pandemic is likely to add to the profession's anxiety and weariness (Ferdig, Baumgartner, Hartshorne, Kaplan-Rakowski, and Mouza, 2020; Ozamiz-Etxebarria, Idoigaga Mondragon, Bueno-Notivol, Pérez-Moreno, and Santabábara, 2021; Dabrowski, 2021).

Furthermore, stress is a common occurrence in the daily life of human beings. With varying degrees of frequency, all individuals have experienced it at some point in their lives. Stress is being under intense pressure or feeling frustrated. Suppose one finds his/herself in situations where he/she has little control over circumstances such as health or illness crises. Such a situation will directly impact his/her overall well-being. Moreover, stress levels have recently increased due to the pandemic. (Urcos, Urcos, Ruales and Urcos, 2020).

Moreover, the pandemic brought the education sector to a fundamental shift in teaching and learning globally. Hence, teachers confront a wide range of challenging circumstances in trying to cope with these changes (Reimers and Schleicher, 2020; Di Fronso, Costa, Montesano, Di Gruttola, Ciofi, Morgilli, and Bertollo, 2020; Liu, Lithopoulos, Zhang, Garcia-Barrera, and Rhodes, 2021; Guillasper, Soriano, and Oducado, 2020;

Mondol andMohiuddin, 2020; Moralista andOducado, 2020).Teaching has a rich history of dissatisfaction and upheavals despite its reputation as a noble profession. Previous research has revealed a moderate to a high percentage of stress among teachers and faculty, and staff in low to middle-income countries such as Ethiopia, Macedonia, and the Philippines (Pagayanan, 2016; Tan, 2017; Alson, 2019; Alves, Lopes, and Precioso, 2021; Agai–Demjaha, Bislimovska, and Mijakoski, 2015).

Determination is the desire to accomplish something, and it frequently goes hand in hand with persistence and resilience. It is the ability to persevere in the face of adversity (Ash, 2016; Toste, Raley, Gross Toews, Shogren, and Coelho, 2021; Tuysuz and Ugulu, 2021). Resilience derives from the Latin term *resilio*, which means “to go back, highlight, and bounce.” As a result, this concept’s incorporation into the social sciences, including psychology and the health sciences, is relatively new. When confronted with the challenge of a crisis experience and stress, *resilience* is the ability to overcome adversity, adapt, recover, and live a meaningful and productive life (Urcos, Urcos, Ruales, and Urcos, 2020).

The sense of autonomy, self-sufficiency, stability, rational thought process, self-esteem, optimism, happiness, emotional intelligence, meaning, purpose, humor, altruism, love, and compassion are strengths, traits, and coping mechanisms highly correlated with resilience. Teachers can surpass the challenges of employing self-learning modules by keeping a positive outlook to feel these positive emotions (Ackerman, 2021; Noughabi and Amirian, 2021; Kim, Leary, and Asbury, 2020; Kim, Oxley, and Asbury, 2021).

For David (2018), the first concept of alienation identifies a distinct psychological or social ill, explicitly involving a problematic separation between a self and another that should adequately belong together. Marx’s Theory of Alienation introduced the concept of labor alienation. Marx discusses four aspects of labor alienation in the Economic and Philosophic Manuscripts: alienation from the product of labor, alienation from the activity of work, alienation from one’s specific humanity, and alienation from others, from society (Horowitz, 2011; Kumari, 2021; Øversveen, 2021; Kociatkiewicz, Kostera, and Parker, 2021).

According to Marx's Theory of Alienation, alienation from the product and labor activity leads to alienation from the self or the human essence. It is not only the product that transforms into an alien power. Moreover, changes in working conditions during a pandemic have negative consequences for employees in alienation from work. (Horowitz, 2011; Guo, Cheng, Luo, and Zhao 2021; Denis, Côté, Fleury, Currie and Spyridonidis, 2021).

Marx's fourth aspect of alienation contends that alienation from one's self leads to alienation from other people or society because "human nature" must be understood as "the ensemble of social relations" (Horowitz, 2011). Teachers' roles have shifted, causing them estrangement from their students. The lack of face-to-face classes and direct communication



between teachers and students prevented teachers from learning more about their students (Li, Fu, Fan, Zhu, and Li, 2021; Atmojo, and Nugroho, 2020).

It stems from the notion that all acts of labor implicate some activity that produces some object, performed by a human being (rather than a work animal or a machine) in some social context. In the context of the teachers' experiences in self-learning modules, the sudden changes in their environment, particularly the prohibition of face-to-face classes and the centralized production of modules that altered their responsibilities as educators, led to their alienation from their profession, their pupils, and themselves. The COVID-19 Pandemic has separated them from their essential roles as educators who prepare lesson plans, conduct class discussions, assess their pupils' performance, and other responsibilities in teaching (Horowitz, 2011; Tingley, and Vowles, 2021; Guo, Cheng, Luo, and Zhao 2021).

Meanwhile parent-led education has been practiced globally for many years (Ray, 2011). However, this is relatively new to Filipino families. As schools suspended in-person instruction, teachers and parents felt overwhelmed and stressed about teaching their children at home. Social distancing and stay-at-home edicts disengaged millions of kids from in-person education. They left parents with little time to prepare to support their children's education at home. Parents assert that this 'home schooling' scenario is unfavorable to the students. The literature agrees that homeschooling is a massive shock to parents and the social life and learning of the students. (Lee, Ward, and Chang, 2020; Ancheta, and Ancheta, 2020).

Parents are the children's first instructors, significantly influencing their personalities. The combination of home and school education shape the student's actual learning. Parental encouragement has been critical in the success of students. Their role extends beyond the home to include participation in school activities. Parents are the teachers' partners in education. They are home facilitators offering educational support to children from their parents concerning issues such as homework would help children create an everyday learning routine when children are doing their task, parents' should stimulate it by praising, vaunting, and rewarding (Lebaste, 2020; Bin Nordin, Iqbal and Bajwa, 2021; Ceka and Murati, 2016; Rizaldi, Nurhayati, Fatimah, and Amni, 2021).

This transition to effective crisis teaching appears easier for some educators than others. Most of it is related to what they were doing in classrooms prior to COVID-19. Of course, much depends on the context of the school community, and even the most successful teachers have encountered difficulties with student engagement, accessibility, well-being, and motivation. However, it appears that teachers and leaders who used student-centered approaches with relational pedagogies built strong communication channels with parents and families and used digital technologies. Growth-oriented assessment practices fared better during the transition. Finally, we believe these educators should lead the system moving

forward. (Hollweck, and Doucet, 2020; Berry, Doucet, and Owens, 2020).

Amid the pandemic, passionate professionalism entails educators being anchored in the principles of ethics and sound judgment while doing their best for the students in their care. It needs reflecting on and critically thinking about one's teaching practice, holding oneself accountable for one's actions, and seeking out expertise, resources, and research as needed (Hollweck, and Doucet, 2020; González, Fernández, Pino-Yancovic, and Madrid, 2020).

## PROCEDURES

### The Rationale for Qualitative Approach

This study utilized the qualitative research design. Accordingly, qualitative research focuses on gathering information through open-ended and conversational communication. Furthermore, it entails collecting and analyzing non-numerical data (e.g., text, video, or audio) to comprehend concepts, opinions, or experiences. Qualitative research can be used to gain in-depth insights into a problem or generate new research ideas (Bhandari, 2020; Cristobal and De La Cruz-Cristobal, 2017).

### Phenomenological Research Approach

While phenomenology study seeks to understand the meaning of people's lived experiences, it explores what people experienced and focuses on their experience of phenomena. This research approach describes the essence of a phenomenon by examining it from those who have experienced it. The goal of phenomenology is to explain the meaning of experience and how it was experienced (Arcilla-Serapio, 2016; Neubauer, Witkop, Varpio, 2019).

Moreover, utilized in this study was Hermeneutics phenomenology. Hermeneutics is thus the art of hearing. This method elicits participant stories as a source of understanding. It enables researchers to investigate how experiences, traditions, and culture shape ordinary daily practices. The goal is to understand the speaker's mental process and true meaning, which in this study are the teachers (Oerther, 2020; Pratiwi, Herman and Suryadi, 2020; Pérez Vargas, Nieto Bravo and Santamaría Rodríguez, 2020).

### Samples and Site

Malapatan Central Elementary School at South Cotabato-Sarangani Road, Malapatan, Sarangani, is the location of the conduct of the study. The participants of this study were the grade six teachers of Malapatan Central Elementary School. The researcher chose five participants for the study. Employing the convenience sampling method, the researcher only selected Grade 6 teachers of the school as his participants.

Based on the Region Memorandum AD No. 31, s. 2020, DepEd SOCCSKSARGEN region and division offices, including all schools, are directed to continue implementing a combination of skeleton workforce and work from home



arrangements as alternative work arrangements (AWA) for teaching and non-teaching personnel. Therefore, the schools must have fifty percent (50%) of the total number of employees working from home (WFH) or telecommuting for three days and the other two days to report as skeleton workforce in the office. The school heads will alternate such arrangements with 50% of the office/school employees.

In observance of this mandate, the school is implementing an alternative work arrangement that involves separating teachers residing outside Malapatan borders from the teachers living within the municipality. Additionally, Grades 3 to 5 are primarily from General Santos City, and only a few are from Malapatan. Furthermore, the remaining Grade 3 to 5 teachers are residing in Malapatan. These age groups are at risk for severe illness from COVID-19. With the rampaging COVID-19, these mechanisms were deemed vital.

The research utilized the convenience sampling method. Hence, the researcher collected the research data from a readily available pool of participants. Furthermore, rapid and low-cost; convenience sampling is appropriate for generating quick ideas, consulting on perspectives, or fostering community engagement. Moreover, the researcher used this sampling to select participants and only chose participants based on their length of service; hence, those who have been teaching for at least five years. The researcher collected a large amount of data for the study. (Pierce, McManus, Jessop, John, Hotopf, Ford and Abel, 2020; Sedgwick, 2013).

#### Access and Permissions

The researcher gave informed consent to the participants containing the study's objectives, procedures, risks, benefits, compensation of the interview, and the confidentiality of their data. Moreover, the researcher gave time to the participants to read the informed consent and answer any questions and concerns regarding the study. After the interview, the researcher transcribed the audio recordings and returned them to the participants. Furthermore, the researcher gave the participants the transcript to edit and verify their answers. After the participants agreed to their transcript, they signed a verification form of their interview data. In an era of growing public skepticism, accessibility and verification contribute to the credibility of research in general (Pool, 2017; Polit and Beck, 2014).

#### Data Gathering Strategies

Upon the approval of the research adviser to conduct the study, the researcher wrote a letter to the principal of Malapatan Central Elementary School, asking permission to conduct a research study in the said school. After the principal agreed to the request, the researcher wrote a letter asking permission from the grade level chairman of the school. After the latter agreed to the request, the researcher conducted the study.

The first step in the data gathering was to identify the qualified participants for the study. As mentioned above, five

Grade 6 teachers who have been teaching for five years were selected to participate in the study. The researcher has given informed consent to qualified participants. Those who agreed to the terms and conditions of the informed consent were the official participants of the study. Ensuring voluntary informed consent is all researchers' ethical and legal responsibility (Anderson, Newman and Matthews, 2017).

The researcher then interviewed the participants one at a time. At the start of the interview, the researcher read aloud the informed consent they had signed to confirm their participation. After the participants confirmed their participation, the researcher explained the interview procedure and asked them any questions or concerns about the process. During the interview, strictly observed were the minimum health protocols. The participant and the researcher's distance was at least six feet away, wearing a face mask and face shield, and using alcohol or hand sanitizer were also observed. Furthermore, the researcher gave enough time to the key informants to ask questions and express their concerns (Polit and Beck, 2014).

The researcher read the questions twice or more with clarity to the participants. In addition, the researcher gave the participants' time to think about their answers. Then the researcher verbally summarized the response of the participants in each question to ensure that there was no misconception regarding their solutions. The researcher only addressed the participants to their given code names or pseudonyms during the whole interview. In this manner, the researcher observed confidentiality. The participants' confidentiality was maintained by not disclosing their names (Arifin, 2018).

The researcher recorded the entire interview on a smartphone. Following the discussion, the researcher transcribed the audio recordings and returned the transcript to the participants. Participants could edit the transcript. After they agreed to the transcript, the participants signed a form confirming the accuracy of their interview data (Pool, 2017).

#### Data Analysis Approach

The researcher examined the data to regularly identify common themes or topics, ideas, and patterns of meaning. Familiarization, Coding, Generating Themes, Reviewing Themes, Defining and Naming Themes, and Writing Up are the six steps in this approach. The researcher then studied the interview transcript and used thematic analysis to answer the study's main research questions. Accordingly, thematic analysis is a qualitative methodological approach used to describe a group of texts, such as interview transcripts (Caulfield, 2019).

In general, during data analysis in qualitative research, the researcher engaged in a unit of analysis selection, subjective observation of the realities of the phenomenon, becoming an instrument for data analysis, looking for multiple facts behind the data, categorizing and finding themes from categories, and presenting an overall storyline of data through analytical insights (Connelly and Peltzer, 2016).



According to Braun and Clarke (2006), as cited by Maguire and Delahunt (2017), it is the first qualitative method that a qualitative researcher should learn because it teaches core skills useful for conducting many other types of analysis. The thematic analysis seeks to identify themes or essential or interesting patterns in data and then use these themes to address the research or say something about an issue. Finally, an excellent thematic analysis does more than summarize the data; it interprets and makes sense of it (Maguire and Delahunt, 2017).

## RESULTS

This study explored the experiences of grade six Malapatan Central Elementary School teachers in employing self-learning modules during the COVID-19 pandemic. The researcher used a qualitative framework design in this study. Methods common to phenomenological research guided data collection and analysis. This chapter presents the findings. It consists of the description of the participants in the study and the study of the themes.

### Description of the Participants

The participants of the in-depth interviews consisted of five (5) teachers from Malapatan Central Elementary School located in Barangay Poblacion, South Cotabato-Sarangani Road. They are female grade six teachers varying in age, subject taught, and length of service.

A code was assigned to each participant to maintain confidentiality.

Participant 1 is a 40-year old teacher who handled ESP, Science, Araling Panlipunan, and MAPEH classes. She has been teaching for 11 years.

Participant 2 is a 27-year-old teacher who handled ESP, Araling Panlipunan, Science, and TLE classes. She has been teaching for five years.

Participant 3 is 33 years old and taught Science, Filipino, Araling Panlipunan, and ESP. She has been in the profession for 11 years.

Participant 4 is a 27-year old teacher who handled ESP, Math, Araling Panlipunan, and TLE classes. She has been teaching for five years.

Participant 5 is 35 years old and taught ESP, Filipino, and MAPEH. She has been serving for nine years.

### Analysis of Themes

The researcher discovered findings that evolved from the data collected through the in-depth interview with five (5) grade six teachers of Malapatan Central Elementary School in employing self-learning modules during the COVID-19 pandemic. The interview protocol allowed for a rich depiction of the participants' experiences through the systematic collection, organization, and analysis of textual material deduced from talk or conversation. The researcher transcribed the entire interview patiently, then read and reread the transcription thoroughly. Moreover, since collecting and analyzing data take a considerable amount of time, each lengthens the time (Creswell, 2014).

After reading each transcription multiple times, the researcher entered phenomenological reduction by delineating units of meaning. The researcher accomplished it by noting patterns in how participants described their experiences in employing self-learning modules during the COVID-19 pandemic. According to Moser and Korstjens (2018), the researcher should familiarize oneself with the data by attentively reading and rereading transcripts to grasp the textual data better. It is what is now called thematic analysis.

Consequently, the researcher generated three main themes from the participants' responses concerning their experiences in utilizing the self-learning modules during the COVID-19 pandemic. The first theme is coping with the difficulties through a passion for teaching. The second theme is optimism in the face of adversities—finally, alienation from job, pupils, and oneself as the impact of employing self-learning modules.

This study explored the experiences of grade six Malapatan Central Elementary School teachers in employing self-learning modules during the COVID-19 pandemic. The study sought to answer the following questions:

1. How do participants describe the essence of their experiences employing a self-learning module in teaching during the COVID-19 pandemic?
  - 1.1. How do the participants view the essence of their experiences employing self-learning modules during COVID-19 learning?
  - 1.2. How do the participants feel the essence of their experiences employing self-learning modules during COVID-19?
  - 1.3. How does the essence of their experiences employing self-learning modules affect their teaching?



**Research Sub-question Number 1: How do the participants view the essence of their experiences employing self-learning modules during COVID-19 learning?**

Main Theme	The participants are coping with the difficulties in the new normal through a passion for teaching.	
Research Question	Cluster Themes	Emergent Themes
1. How do the participants view the essence of their experiences employing self-learning modules during COVID-19 learning?	1. Experience is viewed as not usual (P3) 2. Never experienced employing self-learning modules before (P2) 3. Employing self-learning modules is not easy (P1)	Unfamiliarity and unpreparedness
	4. Need to find ways to teach to the pupils (P3) 5. They become front liners too because they deliver modules house to house (P1) 6. Effort in reaching far-flung areas where their pupils reside (P1) 7. Assist pupils when having difficulty with subjects through text, group chat, or home visitation (P4)	Coping with challenges in the new normal
	8. Feeling like a “printing press” (P2) 9. Not teaching actual lessons (P2) 10. Distributing and retrieving of modules instead of teaching (P5) 11. Teachers are trained for classroom teaching (P3)	Low morale as an educator
	12. No face-to-face teaching is done (P5) 13. Doubting whether the pupils learn from the module without the teachers explaining the lessons themselves (P2) 14. So many considerations on children’s level of understanding (P3)	Lack of confidence in the current education system
	15. Reproducing self-learning modules enhance ICT capacities in reproducing module (P1) 16. By enhancing ICT capabilities, teaching is possible even at a distance (P3)	Digital literacy
	17. Determined to give good education to the pupils despite the pandemic (P1) 18. Believe that pandemic is not a hindrance to quality education (P4) 19. Can still teach through communicating virtually and home visitation (P4) 20. Monitoring pupils one by one (P4)	Passion for teaching
	21. Need to establish connections with parents make it easy to monitor pupils (P3) 22. Physical delivery of modules lead to closer involvement of parents with their child’s education (P4) 23. Does not give pressure to parents on passing modules (P4)	Parent-teacher relationship
	24. The vital stage of her career (P1) 25. Teaches them lessons in life (P1) 26. I never experienced anything like this before (P2) 27. Experiences are part of teaching growth (P1)	Perceived significant impact of the experiences to their career

Several emergent themes emerged during the analysis of the qualitative data. They are: *Unfamiliarity and unpreparedness, Coping with challenges in the new normal, Low morale as an educator, Lack of confidence in the current education system, Digital literacy, Passion for teaching, Parent-teacher relationship, and Perceived significant impact of the experiences to their career.*

Accordingly, the emergent themes led to the creation of the main theme “*The participants are coping with the difficulties in the new normal through a passion for teaching*”. The teachers find ways to cope with these challenges because deep within

their hearts, teaching is their passion. They have to be resourceful and versatile and enhance their digital literacy to perform their duties as educators continuously.

Professional development of teachers is essential to the successful improvement of education. The professional development of teachers is the position of the future. Their experiences and the new challenges will be needed to face and to guide all students to a higher level of learning and development. In addition, professional development is a continuous process in which individuals practice specific occupations. Participating in continuing professional



development has goals: for instance, they are to help teachers change their perceptions or conceptual understanding, as well as their classroom practices, in order to improve student's learning outcomes. They maximize sustained learning and applicability

(Ibrahim andKavlu, 2020; Martinet, Gauthier, and Raymond, 2001; Badawi, 2009).

**Research Sub-question Number 2:** How do the participants feel the essence of their experiences employing self-learning modules during COVID-19?

Main Theme	Optimism in the Face of Adversities	
Research Question	Cluster Themes	Emergent Themes
2. How do the participants feel the essence of their experiences employing self-learning modules during COVID-19?	1. Rise to the challenges and prove pandemic is not a hindrance to education (P4)	Determination and resilience
	2. Wants to prove to those who comment that the government should stop giving them salaries that they are wrong (P3)	
	3. Take negative comments as a challenge to prove they are capable to teach (P4)	
	4. Courageous to ignore negative comments (P4)	
	5. Beliefs learning can still happen despite the pandemic (P3)	
	6. Fears for her health and her family's health (P1)	Emotional distress: demotivation, frustration, burnout, confusion, doubt, fear, sadness
	7. Feels that printing and sorting modules are laborious (P3)	
	8. Feels burdened due to bulky modules that need to be reproduced (P3)	
	9. Feels disgusted seeing the modules (P5)	
	10. Bored after delivering (P5)	
	11. It feels like a failure (P4)	
	12. Affected negatively on the quality of instruction (P3)	
	13. It feels when someone says that their experiences in implementing modules are irrelevant (P4)	Excitement
14. Excited about employing self-learning modules (P1)		
15. Feels excited about the results (P3)		
16. Excited and anxious during delivery and retrieval of modules (P3)	Happiness	
17. Happy when reproducing modules because they will not have to find materials (P1)		
18. Happy with parents active participation in getting their pupils' modules (P2)		
19. Still happy because they can still teach despite the pandemic (P1)		
20. Feels relieved after producing modules (P3)	Satisfaction	
21. Feels accomplished and ready to distribute modules (P3)		
22. Satisfied because they can still fulfill tasks despite the pandemic (P1)	Gratitude	
23. Thankful if told that experiences will help them grow (P4)		
24. Thankful for people who appreciate their work (P2)		
25. Agree when people say that their experiences in implementing modules will help them grow (P2)	Resentment towards negative views on teachers	
26. Insulted if told that their efforts to deliver instructions to the schoolchildren are irrelevant (P1)		
27. Feels insulted when someone questions or comments something about their teaching during the pandemic (P5)		
28. Rebuke those who question their experiences during the pandemic (P3)		

Quite a few emergent themes surfaced during the qualitative data analysis. They are: *Determination and resilience, Emotional distress, demotivation, frustration, burnout, confusion, doubt, fear, and sadness, Excitement, Happiness, Satisfaction, Gratitude, Resentment towards negative views on teachers.*

Consequently, the subsequent emergent themes led to the conception of the major theme "*Optimism in the Face of Adversities*". The participants' feelings about their self-learning modules experiences are positive and negative. More importantly, these revealed their optimism in the face of adversities. Maintaining a positive outlook in life amidst the current pandemic is essential to move forward.



Being a teacher has traditionally been one of the most stressful professions to undertake. However, they are no strangers to feelings of grief. Thus, teacher well-being contributes significantly to job satisfaction and productivity,

benefiting student well-being and academic achievement (Spilt, Koomen, and Thijs, 2011; De Nobile, 2017; Gonzalez, Brown and Slate, 2008).

**Research Sub-question Number 3:** How does the essence of their experiences employing self-learning modules affect their teaching?

Main Theme	Alienation from job, pupils and oneself	
Research Question	Cluster Themes	Emergent Themes
3. How does the essence of their experiences employing self-learning modules affect their teaching?	1. Does not understand the tasks in teaching pupils (P1) 2. Not being able to study the lessons to be taught because there is no face to face classes (P2) 3. Overlooks which specific competency belongs to a particular quarter (P3) 4. She cannot give her 100 percent effort in teaching because there is no face to face classes (P5)	Estrangement from profession
	5. Classroom management is affected because the teacher only gives and retrieves modules (P3) 6. Can only measure performance based on the modules (P3) 7. Cannot conduct online-based classes to assess pupils further (P3)	Difficulty in assessing pupils
	8. Does not know if pupils gave their best in answering the module (P1) 9. Does not know who the pupils are, including their attitudes (P2) 10. Does not know the pupils' way of understanding the lesson (P4) 11. Cannot observe pupils' behavior (P4)	Estrangement from pupils
	12. Seeing parents most of the time instead of pupils (P4) 13. Continuously monitor the parents on pupils' performance (P3)	Parent-led education
	14. Undergo virtual training (P1) 15. There are seminars but only done virtually, listening but not participating (P2) 16. Prefers to be in a venue meeting the speaker (P2)	Online Professional Advancement
	17. Forgets parts of the lessons (P2) 18. Forgets experiences in classroom management (P4) 19. Forgets which topics belong to a specific quarter (P3) 20. Knowledge is somewhat declining (P5)	Decline in knowledge
	21. An expert in some subjects matter (P3) 22. Not confident enough to teach other subjects (P5) 23. Not used to teaching lessons which are not her subjects (P2) 24. Feels she might confuse learners (P5)	Lack of expertise on the subject matter
	25. Experiences do not affect commitment to teaching because she loves her profession (P5) 26. Commitment to the profession is still strong (P3) 27. Exerted great efforts to be an effective teacher still (P3) 28. Needs to have adjustments (P4) 29. It needs to review again (P2)	Unwavering commitment as an educator

A number of emergent themes appeared during the qualitative data analysis. They are: *Estrangement from profession, Difficulty in assessing pupils, Estrangement from pupils, Parent-led education, Online Professional Advancement, Decline in knowledge, Lack of expertise on the subject matter, Unwavering commitment as an educator.*

Based on the emergent themes identified, a major theme was formulated and identified as "*Alienation from job, pupils and oneself*". In the context of the teachers' experiences in self-learning modules, the sudden changes in their environment, particularly the prohibition of face-to-face classes and the centralized production of modules that altered their



responsibilities as educators, led to their alienation from their profession, their pupils, and themselves.

Incidentally, the COVID-19 Pandemic has separated them from their essential roles as educators who prepare lesson plans, conduct class discussions, assess their pupils' performance, and other responsibilities in teaching (Horowitz, 2011; Tingley, and Vowles, 2021; Guo, Cheng, Luo, and Zhao 2021). Moreover, changes in working conditions during a pandemic have negative consequences for employees in alienation from work. (Horowitz, 2011; Guo, Cheng, Luo, and Zhao 2021; Denis, Côté, Fleury, Currie and Spyridonidis, 2021).

## DISCUSSION

This chapter presents the findings, comparison with the existing studies, limitations of the research, implication for further investigation, and the overall significance of the qualitative research on the teachers' experiences employing self-learning modules during the COVID-19 pandemic Malapatan Central Elementary School, Division of Sarangani.

The study pursued to describe the essence of the experiences of the teachers employing self-learning modules during the COVID-19 pandemic, particularly their views, feelings, and the impacts of these experiences on their teaching. Thus, the study extracted the necessary information needed from the participants during the in-depth interview. The study results may equip the curriculum partners with principles and guidelines in reinforcing the instruction in the Division of Sarangani. The DepEd authorities in the district and division levels will use this as a stepping-stone in conducting different training and workshops to recalibrate teaching strategies in the new normal. It will also improve the teaching performance and uplift the teachers' morale in this pivotal stage of their professions.

## Major Findings

This qualitative research described the teachers' lived experiences employing self-learning modules during the COVID-19 pandemic. There were three main themes: Coping with the Difficulties in the New Normal through Passion for Teaching, Optimism in the Face of Adversities, and Alienation from Job, Pupils, and Oneself. They were experiencing something new for the first time in their lives. The teachers faced a massive, sudden change. Accordingly, it affected their personal lives and the course of their careers. The COVID-19 pandemic has separated them from their essential roles as educators. Preparing lesson plans, facilitating class discussions, assessing their pupils' performance, and other responsibilities that encompass the teaching profession are the things missing in their routine as teachers.

During the pandemic, the researcher discovered that teachers in distance learning education were unfamiliar and unprepared. Thus, these changes have caused low morale as educators and doubts about the current situation of the educational system. They experienced emotional distress characterized by demotivation, frustration, burnout, confusion,

doubt, fear, and sadness. Moreover, the tremendous shift in their responsibilities as educators led to their alienation from their profession, pupils, and themselves.

Nevertheless, the teachers remained optimistic. They find ways to cope with these challenges because deep within their hearts lies their passion for teaching. Regardless of the danger of the COVID-19 pandemic, teachers continue to traverse the new standard education, which demonstrates their resilience. Their resilience enabled them to be happy, excited, and grateful for the experiences that allowed them to grow. Furthermore, they rejected that their experiences and role as teachers in the new normal are irrelevant. They were determined to prove that those who question them are wrong and stay relevant in the learners' journey no matter what. They take several measures such as bringing out their resourcefulness and versatility, enhancing their ICT skills and relationship with the parents, adapting to the situation, and continuously performing their duties as educators.

## Comparison of Findings with Existing Studies

More than a year has passed after the national government ordered the suspension of face-to-face classes due to the highly infectious COVID-19. However, until today, the virus is still ravaging the country, and among those drastically affected is the education sector. Hence, educational leaders adopted the different learning modalities through primary education's Basic Education Learning Continuity Plan (BE-LCP). Moreover, the Department of Education (DepEd) is the program implementer (DepEd, 2020).

This study revealed that coping with the teachers' difficulties in the new normal is through passion for teaching. Accordingly, they find ways to cope with the different challenges in the new normal because deep within their hearts, teaching is their passion. In the face of adversities, they have to bring out their resourcefulness and versatility and enhance their digital literacy to perform their duties as educators' continuously. Moreover, their experiences during this pandemic have strengthened the parent-teacher relationship and significantly impacted their lives and careers.

These findings corroborate the findings of Robosa, Paras, Perante, Alvez, and Tus's study (2021) on the Experiences and Challenges Faced of the Public School Teachers Amidst the COVID-19 Pandemic: A Phenomenological Study in the Philippines. They stated that teaching is exhausting, especially in hard-to-miss or forget things. Even when grades are done, attending staff meetings, and preparing students for the next exam were still yet to be done. However, Robosa, Paras, Perante, Alvez, and Tus (2021) added that the occupations could be stretched and energized by focusing on passion. For instance, seeing an older student helping a younger peer is adorable to observe. It indicates that the things imparted to learners become more meaningful upon witnessing the results. Meaning it is just about doing the things that the people personally love.





Similarly, the study of Leer (2021) talked about passion for learning to teach during the pandemic. In her dealings with students, she found out that The COVID-19 pandemic has highlighted the importance of soft skills and intensified the need for adaptation. Still, teachers continually adapt to changing circumstances regularly. Regardless of teaching experience, those who embody fundamental principles like care for students, flexibility, and passion for the profession seem to navigate shifting teaching contexts successfully.

The second theme that came out from the analysis of the textual data was about optimism in the face of adversities. Despite the present pandemic, the teachers demonstrate positivism by retaining an optimistic attitude on life. They may also endure emotional distress characterized by demotivation, frustration, fatigue, confusion, doubt, fear, and despair. However, they remain determined and resilient, allowing them to continue to give their services to the learners with joy, excitement, and a sense of accomplishment. That is why they are grateful when others see their experiences as opportunities to learn and grow and resentful of those who see their experiences as irrelevant.

Lagat (2021) conducted a quantitative descriptive-correlational study on Factors Affecting Resiliency During the Covid-19 Pandemic on a sample of 150 teachers and discovered that resiliency among teachers amidst the pandemic was associated with a high level of optimism and a relatively low level of COVID-19 induced job stress and emotional exhaustion. In general, the study concluded that teachers are highly optimistic in the face of the pandemic.

Finally, the third theme that surfaced during the thematic analysis is alienation from job, pupils, and oneself. There was a sudden change in their environment due to the pandemic. In particular, the prohibition of face-to-face classes and the centralized production of modules altered their responsibilities as educators, which led to alienation from their profession, their students, and themselves. The COVID-19 pandemic has distanced them from their actual tasks as educators. These include preparing lesson plans, leading class discussions, evaluating their students' performance, and other duties associated with teaching.

These findings are consistent with Kozhina, Vinokurov, Neborsky, Boguslavsky, Ladyzhets, Yarmak, and Cherdymova's study (2020). Their correlational study revealed that work alienation increased during the pandemic. The second part showed that workplace distancing; temporary work flexibility, ICTs, and job insecurity are significant predictors of work alienation among university professors.

Generally, alienation from work is a complex negative mental state associated with the destruction of interpersonal communications, expressed in the perception by employees of powerlessness and loss of meaning concerning their activity, working environment, and social environment; loss of self-identification in the role of an organizational employee; and violation and errors of interaction and communication (Vinokurov, 2019).

### Limitations

This study focused mainly on the essence of the experiences of public school teachers in employing self-learning modules during the COVID-19 pandemic. Moreover, the research participants were only limited to five (5) Malapatan Central Elementary School teachers. The researcher chose participants based on their service length, specifically participants who have been teaching for five years or more. According to Creswell (2014), only a few individuals in qualitative research participate because it is easy to attain saturation. When adding more participants to the study, saturation does not result in additional perspectives or information. For phenomenological studies, Creswell (1998) recommended 5 to 25. Moreover, since collecting and analyzing data take a considerable amount of time, each lengthens the time (Creswell, 2014).

Therefore, this study cannot give the general experience of public school teachers in employing self-learning modules. The reason is that this study was only limited to the responses gathered from the five teachers of Malapatan Central Elementary School. Additionally, due to the nature of qualitative research, the data obtained may be subject to different interpretations by different readers. Moreover, the techniques of the data collector and their unique observations can alter the information in subtle ways. Finally, because of the interpretative nature of the qualitative research, the investigators may introduce their biases into the analysis of the findings.

### Implications for Future Research

The research results could not generalize the public school teachers employing self-learning modules because it only involved a few Malapatan Central Elementary School teachers. Hence, a study of the same kind may be conducted in other schools, districts, and divisions to validate the results and collect additional information about teachers' experiences in the phenomenon.

In addition, future research may be undertaken with the same participants to determine whether or not their experiences in employing self-learning modules during the COVID-19 pandemic have changed over time since the possibility of face-to-face classes in the next school year is still uncertain. Further research may also be undertaken from the perspective of the pupils and the parents to extract and divert information in creating a broader view about the phenomenon. Moreover, to help the authorities develop better strategies to ensure the effectiveness of the new educational system, particularly the self-learning modules as an alternative to traditional modalities of learning.

### Overall Significance of the Study

This phenomenological qualitative research may be significant to the following:

The Pupils: The study results will help the pupils understand the difficulties faced by their teachers, especially in



employing self-learning modules. In this regard, they will learn to value their teachers' efforts, become more diligent in answering their modules, and cooperate with the teachers, especially on communication. They will also benefit from the new standard educational system's improvement once relevant agencies consider this study's results.

**The Teachers:** The results of this study will help them understand their experiences during the COVID-19 pandemic and learn to appreciate their struggles as part of their growth. Additionally, the results will help them develop better strategies to strengthen their relationship with the learners. This study will also promote a sense of oneness in the teaching community. Furthermore, this scholarly work will give the teachers an idea that the difficulties they experience are not merely isolated but resonate across the teaching profession.

**The Department of Education (DepEd) authorities:** The findings of this study may be beneficial in creating institutional plans to understand better the status of teachers and educational organizations, as well as schools' readiness to teach and learn via distance learning approaches; thus, retaining and continuing educational objective during the present or prospective pandemic, as well as being prepared for any natural disasters. The results can also serve as a basis for continuous faculty training and development and the improvement of the educational system, in general.

**Parents:** The results of this study will also help parents understand the gravity of their role in implementing the self-learning modules. These will provide them a better insight into the current changes in the educational system as well as the efforts of the teachers in employing self-learning modules. The results will also remove the prejudices towards the role and relevance of teachers in the new standard educational system and strengthen their relationship with the teaching force.

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# EFFECTIVENESS OF TOOL KIT USING DIGITAL TECHNOLOGY ENHANCED LEARNING APPROACHES (TELA) IN TEACHING SCIENCE SIX

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## ABSTRACT

*This study was conducted to determine the effectiveness of the Digital Technology Enhanced Learning Approaches (TELA) Toolkit in teaching Science six during the school year 2020-2021. The study included 10 Grade VI pupils. There were two instruments developed namely the pretest and posttest and the Digital TELA toolkit. Specifically, a pre-experimental design was used to determine the effect of the instructional materials. The study revealed that there was a significant difference between the pretest and posttest of Grade VI pupils. The posttest score of Grade VI pupils in Science was higher than the pretest score. It was concluded that there was a significant difference between the pretest and posttest of Grade VI pupils. This implies that the use of the Digital Technology Enhanced Learning Approaches (TELA) Toolkit was effective in teaching Science in Grade VI pupils. Teachers are encouraged to employ TELA materials as an approach to teaching science. In addition, the Digital Technology Enhanced Learning Approaches (TELA) Toolkit as a tool for instruction should be used for meaningful learning experiences. The researcher highly recommended that it should be used in delivering the lessons, especially during virtual classroom interactions.*

**KEYWORDS:** *Effectiveness, toolkit, digital TELA, science six, Philippines*

## INTRODUCTION

As information and communication technologies or ICTs become more intertwined into everyone's life, they have changed. It provides people with numerous options by making all activities more feasible, and it has now become an essential component of the majority of organizations and businesses. Technology is no longer merely innovative or original; it has become a requirement. Technology plays a significant part in the educational system in today's digital economy as it has become the best gear to teach 21st-century learners—the teaching-learning process aided by ICT to facilitate 21st-century learning. COVID-19 is putting our ICT integration readiness to the test. In the absence of face-to-face classes, the best way to deliver education is through information and communication technology, including online, radio-based, modular learning, and many other options.

Despite these capabilities, there are still concerns and challenges with the use of ICT in education. Even though ICT integration in education is not a new idea or theory, Acosta (2016) claimed in her study that it is still so much below expectation in a developing country just like the Philippines in terms of implementation, application, and practice. She went on to say

that the complete deployment and use of ICT in education in the Philippines is fraught with difficulties. One of the biggest concerns is the government's inability, notably the lack of consistency in the policies they make in the area of ICT. Teacher and student roles as primary users of ICT resources and raising awareness of the importance of ICT should all be addressed. To ensure this paradigm change's long-term viability and encouragement, they must become more literate in ICT use.

The utilization of ICT in teaching and learning is not new, and it has been widely deployed in the past, but as a result of COVID-19's incapacity to meet face-to-face, it has intensified and become vital. Because of the pandemic-associated closures of colleges, schools, and universities, there are multiplied strains to embody digital academics and online training. Many changes were made, and various instructional approaches, including digital instruction, were utilized. During a pandemic, educational methods and styles change to fit the needs of students. Online platforms such as Google Meetings, Zoom Meetings, and Voov Meetings are currently being used to deliver education. Teachers are attempting to address this educational gap in any way they can. Teachers use various methods to communicate with and educate students despite the



pandemic. Many online forms are used, including Google Classrooms, Web 2.0 tools like Facebook and Padlet, online applications, etc. (Rehman, Zhang, & Iqbal,2021).

Many schools have maximized the use of Technology Enhanced Learning Approaches (TELA) before the rise of COVID-19. Many researchers have found that Technology Enhanced Learning Approaches (TELA) are effectively used in face-to-face learning. Balunto Elementary School in the Romana C. Acharon District of General Santos City employs TELA in the face-to-face teaching and learning process. It is compelling and exciting for both teachers and students, as it raises their scores on science quizzes and encourages learners' participation in the lesson. Cervenaska (2013) asserts that technological advancements have significantly impacted people's lives, including education. As a result of this rapid change, traditional teaching methods began to adapt to new technologies. The utilization of technology in the form of Technology-Enhanced Learning (TEL) helps to improve education and is now widely used. Because of ICT's global impact, the educational institution promotes 21st-century learning (Schweighofer, 2015; Young et al., 2017).

Because of the COVID-19 epidemic, education is shifting from face-to-face to digital learning to prevent physical contact, which aids in viral transmission. With the pandemic causing a dramatic shift in education, the researcher was curious about the efficacy of digital technology-enhanced learning approaches in teaching Science six when implemented online.

### Theoretical Framework

This research was based on the cognitive theory of multimedia learning, which states that learners attempt to build meaningful connections between words and visuals to learn more deeply than they could with only words or pictures (Mayers, 2009). This learning theory is vital in today's generation, where learners are becoming more advanced due to technological advancements. Learners are drawn to instructional multimedia elements in today's video-driven society. The text should be close to visuals and given breathing room, according to Rudolph (2017). The use of symbols and highlights aids the learner in recognizing essential topics. Almasseri and AlHojailan (2019) support the premise of the cognitive theory of multimedia learning that learners with limited prior Information would benefit more from its principles than learners with extensive prior knowledge. Learning becomes more relevant with the use of ICT since it helps instructors and learners to explore diverse uses of technology and, as a result, increase the learner's cognitive ability.

### Conceptual Framework

Figure 1 illustrates the study's conceptual framework, which depicts the relationship between the pre-test (before treatment) and post-test (after treatment) when the Digital TELA toolkit is

used. Moreover, this connects to the academic performance in the Science of the Grade six pupils of Balunto Elementary school. When the difference occurs after the treatment, the Tool Kit is adequate. The scores of the subjects in science have improved based on the post-test result.

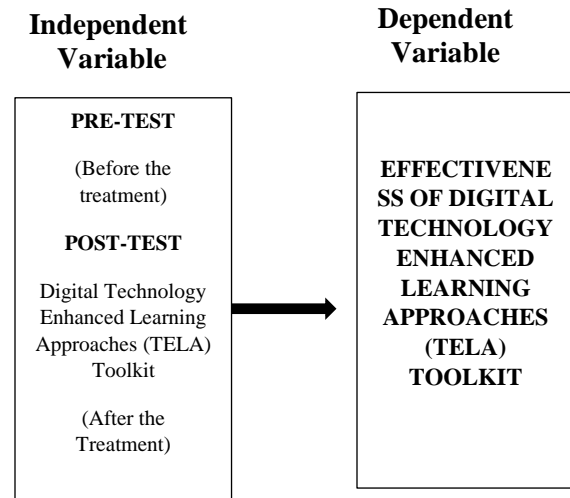


Figure 1: Conceptual Framework

### Statement of the Problem

1. What is the pre-test score of the subjects?
2. What is the post-test score of the subjects?
3. Is there a significant difference between the mean gain scores (pre-test and post-test) of the subjects after the treatment?

### METHOD

This study uses a pre-experimental design in the form of a one-group Pre-test-Post-test design using a quantitative approach. In the Pre-test and Post-test groups, the observation does two times, before giving treatment called Pre-test and after giving treatment called Post-test.

This study is classified as an experimental design because it is little or no control over the extraneous variable. The researcher uses the one-group pretest-posttest method usually involves three steps: (1) administering a pre-test measuring the dependent variable; (2) applying the experimental treatment X to the subjects; (3) administering a post-test, again measuring the dependent variable. By comparing the pre-test and post-test results, differences due in the application of the experimental therapy are examined.

This research was conducted at Balunto Elementary School, part of the Romana C. Acharon District of the General Santos City Division. The research subjects were the Grade VI pupils enrolled at Balunto Elementary School from 2020 to 2021. Pupils here are homogeneous whose grade in science for the





second quarter is from 85 and above and who are under modular printed modality.

A survey questionnaire is a tool utilized to collect the necessary data that comprises a 50-item test that serves as a pre-test. In the fourth quarter, these items were generated using the Grade Six Science Most Essential Learning Competencies (MELCs). The questions were prepared and adapted by the researcher from Grade 6 Science Textbooks. The same items were used in the post-test activities after the treatment, but they were jumbled. Choices for each item were mixed up to see if the responders had improved and to avoid memorizing the answers. Experts thoroughly validated the instrument in question.

The researcher developed a digital toolkit, and lessons were designed based on the Essential Learning Competencies (MELCs) of Grade Six Science in the fourth quarter. He produced eight lesson plans that utilize the 5E (Engage, Explore, Explain, Elaborate and Evaluate) teaching and learning model that supports active and constructivist learning. The researcher then creates a PowerPoint presentation using Technology Enhanced Learning Approaches like interactive PowerPoint, Quizizz, Kahoot, and YouTube video presentations. After finalizing the lesson plan, the researcher created an interactive PowerPoint Presentation of each lesson. The assessment was conducted using Kahoot and Quizizz.com.

The One hundred (100) item test was a pilot test for validity and reliability. Test construction was done with the help of the Grade VI science teachers. It was scrutinized and checked by the expert validators before it was administered to the 45 pupils from a different section of the Grade VI class of Balunto Elementary School. After the pupils answered the instrument, it was immediately retrieved from the pupils to analyze the reliability of each item. To do it, the proponent utilized the Internal-Consistency Method. Using this method, one could determine if the examinee passed or failed in an item. A (1) was assigned for a pass and (0) for a failure.

The instrument was submitted to be validated by experts by the researcher. Comments and recommendations were taken into account when creating the questionnaire. Test of validity and reliability, including item analysis, was conducted. To invalidate the Digital Toolkit, the researcher used the evaluation tool for the Learning Resources (LR) of the Division of General Santos City as per Division Memorandum CID No. 352, s.2020, which experts used in validating the toolkit. The toolkit was presented at the agreed-upon time of the validators and researcher. When developing the toolkit, comments and recommendations from the presentation were considered. Validators were also given a soft copy of the tool to review and thoroughly check the toolkit developed by the researcher.

After determining that the instrument was valid and reliable, the researcher administered the questionnaire to the Grade 6 pupils to ensure that 100% of the data would be retrieved immediately, as agreed upon during the instrument distribution.

The pre-test in science (before the treatment) was conducted in March 2021 to the ten pupils in Grade 6. Since face-to-face is not possible for the Pretest, printed test questions were given to the ten respondents and were given one day to accomplish and return to the school. Right after conducting the pre-test, the experiment immediately commenced.

The researcher employed various Technology Enhanced Learning Approaches (TELA) in teaching science. The respondents were not informed that they were taking part in a teaching science study with TELA. Google meet portal was utilized to conduct the online class every Wednesday from 9:00-9:50 in the morning using the TELA Toolkit validated by the experts. A month after discussing the different lessons for the fourth grading in science employing the different Technology Enhanced Learning Approaches (TELA), in May 2021, the same instrument was administered for the post-test activity. Quizizz.com was used to conduct the post-test.

Appropriate tools were used to analyze and interpret the gathered data. During the item analysis, the proponent decided to keep the items that passed the indexes of difficulty and discrimination, as shown on page 29. Other items that were marked revise or improve were carried out. The 100-item test underwent face validation. It was validated by three (3) experts who have been vertically inclined in science. The instrument was validated using the following criteria: 1.) clarity of direction and indicators, 2.) presentation and organization, 3.) suitability of indicators, 4.) adequacy of indicators per category, 5.) congruency to the purpose, 6.) impartiality of the researcher, and, 7.) appropriateness of the options and evaluation rating system. Through their expertise, revisions and improvements were made. The instrument would obtain an overall mean that must be good or very good. Then after that, the researcher would know if the test was valid and reliable.

Out of the 100-item Test in Science that underwent validation and piloting, the researcher came up with an official 50-item Test used in the pre-test and post-test activities for his experimental research design.

Problem numbers one and two were treated using frequency counts. Problem number three was treated using a Wilcoxon Signed Rank Test. The Wilcoxon Rank-Sum Test is used when the sample size is small and frequently quite narrowly restricted, for example, within [0,10] (ChlaB et al. 2006). It is the appropriate test of the difference between two groups if the distribution is abnormal. The means of the two independent groups are compared.



## RESULTS AND DISCUSSION

Table 3 below presents the pre-test score of the Grade VI- Apelinga Pupils in Science before the Digital Technology Enhanced Learning Approaches Toolkit was introduced and Taught.

Of the ten respondents, nobody got a very high score, 3 or 30% got a high score, 4 or 40% got a moderately high score, 3 or 30% got a low score, and 0 for a very low score. The mean score of 25.2 revealed that the pre-test scores of grade 6 pupils before giving the treatment were moderately high. Table 3 below shows the detailed Information on the pupils' pre-test scores.

**Table 3**  
**Frequency Count and Percentage Distribution of the Pre-Test Score of Grade VI-Apelinga in Science VI.**

Score	F	%	Description
41-50	0	0	Very High
31-40	3	30	High
21-30	4	40	Moderately High
11-20	3	30	Low
1-10	0	0	Very Low
Total	10	100	
Average Score		25.2	Moderately High

Table 4 presents the post-test score of Grade VI- Apelinga students in science after using the Digital Technology Enhanced Learning Approaches Toolkit in teaching the subject.

It can be noted that the progress is evident. Of the ten respondents, 1 or 10% got a very high score, 8 or 80% got a high score, 1 or 10% got a moderately high score, and 0 for a low and very low score. The mean score of 36.5 showed that the post-test score of the pupils after teaching using the toolkit was high. An improvement of a mean score equal to 11.3 is noticeable.

The result was supported by Mayers (2009) that learners try to make meaningful connections between words and visuals to learn more profoundly than they could with only words or pictures. Teachers are encouraged to continuously use the Technology Enhanced Learning Approaches to improve teaching and learning. This platform promotes interactive learning, increasing learning activity and retaining knowledge over long periods (Chuang, 2015).

The review of the literature revealed that Information and Communication Technologies (ICTs) are the tools that gear people to communicate, generate, distribute, collect, and administer Information. It's a "complex system of technological instruments and resources for communicating, generating, disseminating, storing, and managing data." As information

society is rapidly growing, technology effortlessly infuses the community and individual's life; ICT will continue to reshape our community in a manner expected to be beyond man's imagination. Technology provides a promising direction for the educational process because it allows self-education and development. With technology, we develop the ability to work with Information independently to find, interpret, translate, and finally synthesize new knowledge based on available data (Abdullayev, 2020; Adeyinka & Aluko, 2018; Alkamel & Chouthaiwale, 2018; Skryabin et al., 2015; Shaikh, 2019; ZTE, 2014).

Playing activities provide various benefits to children in addition to providing enjoyment. Play activities can encourage a variety of potential intelligence in children, including physical abilities, verbal, social, emotional, math, art, and so on. Any adult in charge of early childhood education, whether parents or educators, should be aware of the role of play in stimulating all elements of early childhood development ( Hazizah, 2017). Incorporating space into learning aids a child's development. Gamification or game-based learning provides learners with a gaming nature that is fun and interactive, allowing learners to be fully involved in the learning cycle. Due to its 'play nature,' game-based learning also captures learners' full attention and promotes knowledge retention (Tan Ai Lin, Ganapathy, & Kaur, 2018).

**Table 4**  
**Frequency Count and Percentage Distribution of the Post-Test Score of Grade VI-Apelinga in Science VI.**

Score	F	%	Description
41-50	1	10	Very High
31-40	8	80	High
21-30	1	10	Moderately High
11-20	0	0	Low
1-10	0	0	Very Low
Total	10	100	
Average Score		36.5	High

The U-computed value of the Respondents for the Significant Difference between Pre-test and Post-test Mean Gain Scores

As in Table 5, it can be gleaned that the U1 computed value of 8.5 is less than the U tabular value of 10 at 0.05 level significance with  $n_1=10$  and  $n_2=10$  degrees of freedom. It implies a significant difference between the pre-test and post-test after the treatment. It indicates that the techniques and strategies employed by the teacher in using technology-enhanced learning approaches in teaching science 6 played a vital role in obtaining a positive result. There was an



improvement in the academic performance of Grade 6 pupils in science.

Research about the effect of using e-learning tools online and student performance also supports this result. The findings have contributed to the growing body of knowledge and support the teaching activities, resulting in more meaningful learning experiences to improve learning outcomes and student performance (Galy, Downey, and Johnson, 2012).

In the twenty-first century, the learning cycle necessitates creativity. With the availability of a wide range of information and communication technology, the challenge is to figure out how to use it to reinforce learning. Educators are challenged to use it while keeping the learners' motivation and needs in mind. In a study on the use of Kahoot! At a Malaysian public university, a game-based learning platform, during their weekly lectures for one semester with 51 respondents, the results provide significant insights into the efficacy of using Kahoot! Adult learners in higher education. Kahoot! It offers numerous benefits and allows educators to be creative while motivating students to enjoy and continue to learn. Game-based learning provides an escape from the mundane and traditional instruction (Tan Ai Lin, Ganapathy, & Kaur, 2018).

Gamification isn't a brand-new idea. As technology moves forward, more learning opportunities emerge, such as learning games that trigger effective player engagement and persistence and motivation to win/learn. There is strong evidence that shows

the relationship between game-playing and increased motivation. Many studies have had very positive results. They are using game-based learning tools like Kahoot! It allows students to self-evaluate their learning process, making them more active and experienced and better demonstrating what they have learned. According to Zarzycka-Piskorz (2016), gamified education is based on motivation, particularly internal motivation, which stimulates an individual's engagement. Because people enjoy (or experience pleasure) while learning, game-based learning approaches boost learners' interest in the subject matter, and so they are more engaged and concentrated in the subject (Curto et al., 2019; Dehghanzadeh et al., 2021; Wang et al., 2020; Zarzycka-Piskorz, 2016)

Furthermore, ICT in Science can make learning active by involving students in tackling the topic to produce meaningful and understandable Information (Chakravarty,2017). This finding is supported by a study that found that selecting teaching materials positively impacted students' achievement (Eaton et al., 2017).

**Table 5**  
*Significant Difference between Pre-test and Post-test Mean Gain Scores*

Variables	df	U-value		Decision at a 0.05 level of Significance	Remarks
		Computed	Tabular		
Pre-test Score Versus Post-test Score	1.5	8.5	10	Reject Ho	With significant difference

The study found that using TEL with explicit instructional goals and an intervention coordinated, led, and structured by a mediator makes a difference in learning results. Fun learning occurs due to these factors because TEL allows for experiential learning, personalization, collaboration, information sharing, common interests, active participation, cooperative learning, and group work support. (Cox & Abbot, 2004; Pilkington, 2008; Trucano, 2005) cited by Rodríguez, P., Nussbaum, M., & Dombrovskaja, 2012, Vygotsky, 1978) .

Technology Enhance learning (TEL), three areas must be understood to make TEL: Social, Technological, and Methodological. In improving the standard of pupils, social events are very beneficial. Programs and projects advocating e-learning would increase the active involvement of learners and influence other learners. Methodological: Imagination encourages learners to try out new ideas in the spirit of "learning to learn" to improve self-study skills and prepare for new techniques and technological advances when old ones become obsolete (Udjaja et al., 2018).In a study involving a treatment group and a control group, researchers discovered that the treatment group using TEL had statistically significantly better learning performance results than the



control group. Despite a minor advantage for the treatment group, the difference in arithmetic fluency was not statistically significant. The difference in fluency test errors, on the other hand, was statistically significant in favor of the treatment group. It has been discovered that it has the potential to improve student's learning achievements, motivations, and interests. (Kurvinen et al., 2020; Hwang & Wu, 2014)

## CONCLUSIONS

In the light of the findings and the discussions presented in the previous chapter, this study concluded that:

1. Digital Technology Enhanced Learning Approaches Toolkit was effective in teaching Science 6.
2. The pupils' performance in Science 6 was improved after the use of Digital Technology Enhanced Learning Approaches Toolkit as a tool in teaching Science 6.
3. There was a significant difference in the mean gain score of the pupils in the pre-test and post-test after treating the subjects of this experimental research.

## RECOMMENDATIONS

In light of the conclusions, the following are the recommendations of the study:

1. Teachers are encouraged to employ Digital Technology Enhanced Learning Approaches to teach science.
2. The Digital Technology Enhanced Learning Approaches as a tool for instruction should be used for meaningful learning experiences. It suggested that it should be used in delivering the lessons and during virtual classroom interactions.
3. Stakeholders and other community linkages should be encouraged to support the school and pupils for easy and effective delivery of instruction.

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## RE-CONSTRUING SRI AUROBINDO GHOSH FROM EDUCATIONAL VIEWPOINT

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### ABSTRACT

*Sri Aurobindo, within his life span, wandered into many fields of human life. Whenever he is stationed in the field of life, he has devoted his heart and soul to it. Education, teaching, national liberation movement, Sadhana, wherever he involved himself, he maintained his uniqueness. But these different aspects of his working life seem in many ways contradictory and mutually exclusive, but in reality, they are not. The main formulas of his thought in different fields took a coherent individual form in his mind. Sri Aurobindo can therefore be considered the embodiment of the modern age of Integral thought. This Integral tendency can also be observed in his thinking about education that is Integral Education. Sri Aurobindo's educational thought was born from his deep spiritual consciousness and sharp scientific analysis. Therefore, Sri Aurobindo has made a meaningful combination of Western and Eastern perspectives in his concept of Integral Education. Aurobindo's philosophy is not recommended by any religious denomination. On the basis of basic human religion, he proposed this doctrine, which is applicable to the people of any religion, in any country. Thus, Sri Aurobindo's doctrine of education can be applied to building a universal education infrastructure for the modern world.*

**KEYWORDS:** Sri Aurobindo Ghosh, educational viewpoint, integral education, philosophy of life, educational philosophy and goals of education.

### INTRODUCTION

Sri Aurobindo Ghose was born on August 15, 1872, in Kolkata, West Bengal, India (Saha & Maji, 2013). He was a great philosopher and thinker. His creation greatly affects the Indians. After all his contribution, he went to the afterlife on December 5, 1950. Aurobindo's formal education was spent in England (Rani, 2017). So, he was well aware of European thought. Returning home after graduation, he acquired knowledge on Indian languages and philosophy while teaching at Baroda College, entirely through personal effort. During this time he also started practising yoga. For some time he was directly associated with the freedom movement. He also had to spend a year in jail in the 'Maniktala Bomb' case. During this time he studied Gita, Upanishad etc. with deep attention. After his release from jail, he abandoned his political activities and settled first in French-occupied Chandannagar and later in Pondicherry. In his later life, he devoted himself searching for the welfare of mankind through *sadhana*. He later developed his educational philosophy based on the experience he gained as the Principal of the National Education Council during the National Education Movement.

### PHILOSOPHY OF LIFE OF SRI AUROBINDO

Philosophy of Life of Sri Aurobindo is based on Vedanta Philosophy. He said that every human being has some auspicious present. This auspicious power is the Almighty *Paramatma* or the supreme soul or *Brahma* (Giri, 2022). The main objective of all endeavours in personal life is to find and

develop that auspicious power. He considered all the small objects in the universe as many cells of that single *Brahma* consciousness. He says that it is through yoga that he can be seen by coordinating these tiny parts. When this harmony takes place, the person realizes that universal consciousness or the Supreme *Brahma*, and he can see the harmony of that Supreme *Brahma* in others. Sri Aurobindo says that humans are the only animals in the animal kingdom who have the ability to perceive this harmonious form of the Supreme *Brahma*. He said, there is a spiritual aspect of human life and it is this spiritual life that has given him superiority among the animals. Other non-human beings do not have this feature. Sri Aurobindo also says that the Almighty Universal Spirit manifests in two forms. One is His ultimate form of existence, and the other is His manifested evolving form. The Being is the fundamental reality, and the Becoming is the actual reality. It is the dynamic power and result of creative energy and working out of being a constantly persistent yet mutable form, the processed outcome of its immutable formless essence. His manifest aspect can be witnessed only when the man is able to perceive his existence properly. In the gross sense, the ultimate truth is life and its subdivisions are the way of life. The purpose of human life is to achieve a meaningful harmony between this life and the customs of living. According to Sri Aurobindo, it is possible through *Yoga Sadhana*.



## EDUCATIONAL PHILOSOPHY OF SRI AUROBINDO

Educational Philosophy of Sri Aurobindo is part of his philosophy of life. In his philosophy of life, he pointed out the realization of the Universal Spirit as the ultimate goal of human life. As a means of achieving this objective, he adopted education. He believed that the developmental process helps people realize the existence of omnipotent world consciousness, hence education. Sri Aurobindo elaborates on this basic concept of education in the context of explanation. He said that alone will be a true education that helps to bring out to the full advantage, makes ready for the full purpose and scope of human life. In this respect, we can call up Kalam and his inspirational philosophy of life to inspire the young adult minds of the nation (Gayen et al. 2021). Relation with the life, mind and soul of the people to which he belongs and with that great total life, mind and soul of the humanity of which he himself is a unit and his people or nation of living a separate and yet inseparable member. In short, the true meaning of Sri Aurobindo's statement is that education is a process that enables the individual to fulfil all his inherent potential. The process is capable of making the individual aware of the universal, omnipotent world soul. In this sense, education is an integrating process that brings harmony between the three aspects of the individual life or soul. Therefore, Sri Aurobindo's concept of education is called integral education. Some educationists have expressed the opinion that no contemporary concept of education, so deeply embedded in the human mind, contemplates integration. Hence there is a subtle difference between this idea of Sri Aurobindo's education and that of ancient traditions and even many educational ideas. In his harmonious educational concept, one can see the attempt to bind the individual with society, the material world with the inner world and the creator with his creation in the same harmony. According to this concept, the development of individual life will reach its culmination only when the individual is able to realize the Supreme in his own heart. In Sri Aurobindo's concept of education, the aim of education is implicitly mentioned. He especially emphasized the coordination of pedagogy and philosophy of education in his educational philosophy. Imposed that is, the basic aim of education is to reconcile a number of apparently contradictory tendencies. Sri Aurobindo believed that if these adjustments can be made in the development of one's life, one will be able to reach the ultimate goal of one's life. Analysing these areas of coordination, the aims of education laid down by Sri Aurobindo can be properly understood.

### Integral Education

Sri Aurobindo said that Integral education aims at integrating the material and spiritual dimensions of personality. That is, one of the aims of education is to reconcile the objectivity and spirituality of the individual (Islam, 2017). Like the ancient Indian sages, Sri Aurobindo did not distinguish between *Paravidya* and *Aparavidya*. *Paravidya* is knowledge of *Brahma*. Enlightenment can be achieved through self-realization. *Aparavidya*, on the other hand, is the knowledge of the material world. This *Aparavidya* can be acquired through

the practice of so-called subjects like literature, science etc. But without *Paravidya*, this *Aparavidya* is completely meaningless in individual life. The knowledge of the material world gives man the satisfaction of living temporarily but confuses his life. Sri Aurobindo termed this *Aparavidya* devoid of *Paravidya* as *Avidya*. He says, in modern times, this ignorance is responsible for all the calamities of man. But at once he admits that superstition is not entirely excluded. Because the religion of life is living. And to live a righteous life, materialism is also necessary. Therefore, Sri Aurobindo thinks that if *Aparavidya* can manifest in the light of *Paravidya*, it will become beneficial. Real education will help to achieve this goal. Thus, the aim of education will be to help the learner to grasp material knowledge in the light of *Paravidya*. According to Sri Aurobindo, one of the main aims of education is to serve before the learner, giving significance to material knowledge in terms of both life and living.

### GOALS OF EDUCATION

There has long been a conflict among educational philosophers about deciding what the goals of education should be. Some educational philosophers expressed the opinion that the individual should be the goal of education. The sole aim of education shall be to facilitate the full development of the personality traits of the individual or student. Another group of educational philosophers, on the other hand, fixed the welfare and development of society as the sole aim of education. At the theoretical level of philosophy, this conflict is thought to have ended in modern education, but in reality, it has not. People of the modern world are divided by the influence of two social philosophies. In those states where people believe in democratic social philosophy, emphasis is placed on developing individualism in education. As a result, the goal of individualized education is pursued in democratic states. Thus, it can also be incorporated that values and morals are also important aspects in human life (Gayen, 2023).

On the other hand, the opposite view can be observed in those countries where the people believe in socialist ideology. That is, in socialist states the welfare and development of society as a whole is pursued as the sole ultimate goal of education (Kaur, 2013). Sri Aurobindo, in his educational thought, did not consider the individual and the state or the people as separate entities. He did not even think of the mutual conflict between them. He thinks that individuals and society are complementary to each other and both are manifestations of universal manhood. An individual is a small unit of the whole human spirit. So there is no room to consider him separately from the public or the state. For this reason, Sri Aurobindo described the individual as a separate and yet inseparable member of his philosophy.

The aim of Sri Aurobindo's Education is to awaken this feeling in people's minds. Thus, according to his concept, one of the aims of education is to establish the unity of the individual with society. But the attempt to establish this relationship through education will not be based on logic but will be completely based on feelings. Sri Aurobindo said about man, man is the divine incarnate with a mission to be fulfilled. A person is a



symbol of God or an incarnation of God and he has to perform a good deed. This good deed is to realize God. In traditional education, the field of human knowledge is divided into various branches such as science, arts, commerce, technology etc. Sri Aurobindo felt that this division of the knowledge of the universe as a whole, and the practice of those small parts, narrow the process of mental development of the individual. To think of the individual as a writer, scientist, or engineer means that his ego is divided into smaller parts. To be bound up in bonds. One must be accustomed to thinking as a human being. The aim of education will be to form this habit in the student. Culminating in his life, that is, materially speaking, one of the aims of Aurobindo's teaching is to open up to the student all fields of knowledge and help them to realize their complete unity.

Analyzing the mentality of modern people, it can be seen that there are contradictions in it. There is no harmony between his desires, actions and thoughts. Sri Aurobindo commented modern man is completely fragmented at heart. Through education, he should harmonize his thoughts, actions and desires. He will be considered as a mature man, whose will, action and thought are in harmony with each other. He says, if the personality is brought close to the soul, the separation between it will be removed. The aim of true education will be to awaken the consciousness of man to this end. Every human being's consciousness is thunderous in its initial stage. At the next stage of the development of that material consciousness, it is transformed into the inner consciousness, and at the last stage, it merges with the world consciousness. A person who has been able to establish unity with this world consciousness has achieved complete harmony in his personality. When a person has advanced to this stage, there is no contradiction in his behaviour, thoughts or desires. Helping to develop such a personality should be the aim of education according to Sri Aurobindo.

From this discussion on the goal of education, Sri Aurobindo was able to perceive a form of harmony in the universe through his philosophical intuition. So, he chose as the main aim of education the task of harmonizing the apparently conflicting ideas and trends existing in knowledge and in life. He did not completely discard any conventional goal of education. Recognizing that each of those goals is significant and desirable in human life, he said that trying to achieve those goals in isolation is meaningless from the point of view of life. Attempting to achieve separate goals will create chaos in one's life. So, in various conventional goals of education, Sri Aurobindo attempted to interrelate by including a fundamental goal. This main aim is to inculcate world consciousness in the mind of the individual or student. He felt that within this world consciousness, there would be a combination of the traditional materialistic aims of education with spiritual aims, individualistic aims and social aims. Therefore, the ultimate goal of education is to realize universal consciousness or *Satchidananda Parambrahma* (Jha, 2013). This goal of education chosen by Sri Aurobindo is compatible with the concept of modern international brotherhood. Because the aim of this education is complete unity.

Sri Aurobindo said about man, Man is the divine incarnate with a mission to be fulfilled. A person is a symbol of God or an incarnation of God and he has to perform a work. This good work is to realize God. In traditional education, the field of human knowledge is divided into various branches such as science, arts, commerce, technology etc. Sri Aurobindo felt that this division of the knowledge of the universe as a whole, and the practice of those small parts, narrowed the process of the individual's mental development. To think of the individual as a writer, scientist or engineer meant that his ego or self was divided into smaller parts. To be confined in small knots. One must be accustomed to thinking as a human being. The aim of education is to form this habit in the student. Different branches of human knowledge are the only means by which one realizes the One Absolute. Through this, he will reach the culmination of his life. That is, materially judged, one of the aims of Aurobindo's teaching is to open up all fields of knowledge to the student and help him to realize their complete unity.

Analyzing the mentality of modern people, it can be seen that there are contradictions in it. There is no harmony between his desires, actions and thoughts. Sri Aurobindo commented modern man is completely fragmented at heart. Through education, he should harmonize his thoughts, actions and desires. He will be considered a mature man, whose will, action and thought are in harmony with each other. He says, if the personality is brought close to the soul, the separation between it will be removed. The aim of true education will be to awaken the consciousness of man to this end. The consciousness of every human being is materialistic in its initial stage. At the next stage of the development of that material consciousness, it is transformed into the inner consciousness, and at the last stage, it merges with the world consciousness. A person who has been able to establish unity with this world consciousness has achieved complete harmony in his personality. Sri Aurobindo called this type of personality "Super manhood". When a person rises to this level, there is no contradiction in his behaviour, thoughts or desires. Sri Aurobindo said about this 'Super manhood' is not man climbing to his own natural Zenith, not a superior degree of greatness, knowledge, power, intelligence, will, character, genius, dynamic force. It is a greater consciousness than the highest consciousness proper to human nature According to Sri Aurobindo, the goal of education should be to help develop such personality.

## CONCLUSION

From this discussion on the goal of education, Sri Aurobindo was able to perceive a form of harmony in the universe through his philosophical intuition. He, therefore, chose as the main aim of education the task of harmonizing the apparently contradictory ideas and tendencies which exist in the field of knowledge and in the field of life. He did not completely discard any conventional goal of education. Recognizing that each of those goals is significant and desirable in human life, he said that trying to achieve those goals in isolation is meaningless from the point of view of life. Attempting to achieve separate goals will create chaos in one's life. Sri





Aurobindo, therefore, attempted to interrelate the various conventional aims of education by subsuming them into one fundamental aim. This main aim is to inculcate world consciousness in the mind of the individual or student. He felt that within this world consciousness, there would be a combination of the traditional materialistic aims of education with spiritual aims, individualistic aims and social aims. Therefore, the ultimate goal of education is to realize universal consciousness or Satchidananda Parambrahma. Sri Aurobindo said if it is true that spirit is involved in Matter and apparent Nature is sacred God, then the manifestation of the divine in himself and the realization of God within and without are the highest and the most legitimate aim possible to man upon earth. This goal of education chosen by Sri Aurobindo is compatible with the concept of modern international brotherhood. Because the aim of this education is complete unity. Therefore, Sri Aurobindo has made a meaningful combination of Western and Eastern perspectives in his concept of Integral Education. One of the leading literary figure of India, Rabindranath Tagore has also made a tremendous contribution in the field of education (Mondal & Gayen, 2021).

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# PELVIC FRACTURES, EPIDEMIOLOGY, ANATOMY, MECHANISM OF INJURY, CLASSIFICATION, IMAGING PRESENTATION, CLINICAL PRESENTATION, MANAGEMENT AND COMPLICATIONS

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## SUMMARY

**Introduction:** Open fractures of the pelvis represent one of the most fatal injuries within musculoskeletal trauma so they must be treated correctly, adjusting to a multidisciplinary approach to achieve the well-being of the affected person, in addition to restoring homeostasis and normal pathophysiology related to the mechanical stability of the pelvic ring.

**Objective:** to detail current information related to pelvic fractures, epidemiology, anatomy, mechanism of injury, classification, imaging presentation, clinical presentation, management and complications.

**Methodology:** a total of 27 articles were analyzed in this review, including review and original articles, as well as clinical cases, of which 20 bibliographies were used because the other articles were not relevant for this study. The sources of information were PubMed, Google Scholar and Cochrane; the terms used to search for information in Spanish, Portuguese and English were: fracturas de pelvis, fraturas do anel pelvico, anatomy of the pelvis, fractures of the pelvis.

**Results:** Most cases of pelvic fractures occur in young people due to high-energy mechanisms, although injuries can also be generated by low-energy mechanisms and can cause fractures of individual bones. Mortality is higher in individuals with hemodynamic instability. The standard imaging examinations in trauma are anteroposterior projections of the thorax, lateral cervical spine and anteroposterior projections of the pelvis; special projections of the pelvis include the oblique alar and obturator projections. The severity of pelvic fractures is closely related to the associated injuries.

**Conclusions:** Knowledge of anatomy is a fundamental piece in the treatment of pelvic fractures and associated injuries. There are several systems for classifying pelvic fractures, according to anatomical patterns, mechanisms of injury, resulting instability requiring surgery. The most frequently used is that of Young and Burgess. For evaluation, one should start with the ABCDE, airway, breathing, circulation, disability, and exposure and integrate a complete traumatologic evaluation. To determine whether there is pelvic instability, the anteroposterior and lateral compression test is performed



for one occasion, generating internal and external rotation of the pelvis. The spine and extremities should be well assessed with an adequate neurovascular examination and a thorough neurological examination. In pelvic fractures, management and treatment begins with ABCDE. Followed by stabilization of the patient, a multidisciplinary approach is required. External or internal fixation can be performed to stabilize the pelvis, its use and recommendation usually vary according to the characteristics of each fracture, the associated injuries and the instability of the pelvic ring. Pelvic trauma with involvement of the acetabulum and injuries to the genitourinary system should not be underestimated. Complications include infection, thromboembolism, malunion and pseudarthrosis.

**KEY WORDS:** fracture, pelvis, pelvic ring, pelvic trauma.

## INTRODUCTION

Open fractures of the pelvis represent one of the most fatal injuries within musculoskeletal trauma and must be treated correctly, following a multidisciplinary approach. Traumatic injuries can present themselves in different ways, both as small wounds and as severe and difficult to manage injuries that can lead to shock, as well as organic damage or multisystemic dysfunction, so adequate management and timely treatment should be provided, focused on the prevention of bleeding and infections that can trigger sepsis. Some fracture types or subtypes of pelvic fractures do not generate rupture of the ring, as is the case of fractures of the iliac wing, which in most cases can be treated conservatively. It should be taken into account that pelvic fractures can be linked to other types of injuries, hip dislocations, fractures of the acetabulum, which can appear together with high-energy trauma. For all patients with pelvic trauma, management has to take a multidisciplinary approach, focusing on the well-being of the affected person, in addition to restoring homeostasis and normal pathophysiology related to the mechanical stability of the pelvic ring; therefore anatomy and physiology are cornerstones in the management of patients with this condition. Management of associated soft tissue injuries should be effective, using broad spectrum antibiotic therapy, proper debridement and wound irrigation. Selective fecal detour, based on the location of the wound, is mandatory and safe, which reduces the risk of infection and sepsis, in addition to reducing the mortality rate(1-4).

## METHODOLOGY

A total of 27 articles were analyzed in this review, including review and original articles, as well as cases and clinical trials, of which 20 bibliographies were used because the information collected was not important enough to be included in this study. The sources of information were Cochrane, PubMed and Google Scholar; the terms used to search for information in Spanish, Portuguese and English were: fracturas de pelvis, fraturas do anel pelvico, anatomy of the pelvis, fractures of the pelvis.

The choice of the bibliography presents elements related to pelvic fractures, including epidemiology, anatomy, mechanism of injury, classification, imaging presentation, clinical presentation, management and complications.

## DEVELOPMENT

### Epidemiology

Most cases of pelvic fractures occur in young people from high-energy mechanisms; however, the elderly often present with these fractures with milder trauma, such as a fall from a minimal height.

Pelvic trauma is usually dangerous and can be life-threatening. Pelvic trauma occurs in 3% of skeletal injuries and has a high mortality rate, especially in individuals with hemodynamic instability. Some authors show that the average incidence is between 15 and 28 years of age, with males under 35 years of age being generally affected, and in the case of females, those older than 35 years(1-3,5-8).

A clinical article shows that the incidence of urological trauma in pelvic fractures with acetabular involvement was 2.4%, with a mean age of 45 years; the male-female ratio was 2.1:1. It also showed that the most frequent associated injuries were urethral injuries with 43%, followed by bladder injuries with 32%, followed by the combined injuries of these 2 previous ones with 11%, related to high energy pelvic trauma and renal injuries with 14%, the latter being associated with isolated acetabular fractures. On the other hand, other trials present different results, detailing that open pelvic fractures are infrequent, but with a significant morbidity, with a high survival rate, and without significant difference in survival between individuals with closed or open pelvic fractures, presenting 14% and 4% mortality respectively. The attached bibliography reports mortality between 4 and 45%. Associated risk factors are being over 50 years old and coagulopathy(9-11).

### Anatomy

The pelvic ring is formed by 2 innominate bones and the sacrum, linked anteriorly at the symphysis pubis and posteriorly at the 2 sacroiliac joints. An innominate bone is formed by the union of three ossification sites: ilium, ischium and pubis, connected by the triradiate cartilage at the dome of the acetabulum. The true or minor pelvis holds the pelvic viscera. The false or greater pelvis, formed by the lower part of the abdominal cavity. The stability of the pelvis is provided by the ligamentous complexes, which are classified into 2 according to their insertions:

- Sacro-ilion union: the ligamentous components on the posterior aspect of the pelvis are the most resistant, the most stabilizing, joining the sacrum with the innominate bones. The sacroiliac ligamentous complex fragments into the anterior ligaments and the posterior ligaments including the long and short ligaments. The sacrotuberous ligament and the posterior sacroiliac ligaments maintain the vertical stability of the pelvis. The sacrospinous ligament supports rotational control of the pelvis.
- Pubis-pubic junction: there are the ligaments of the symphysis.



The ligaments that run from the lumbar spine to the pelvic ring provide complementary stability:

- Iliolumbar ligaments.
- Lumbosacral ligaments.

Ligaments that are located transversely and resist rotational forces.

- Short posterior sacroiliac.
- Anterior sacroiliac.
- Iliolumbar.
- Sacrospinous.

Ligaments that are located vertically and resist shear forces:

- Long posterior sacroiliac.
- Sacrotuberous.
- Lateral lumbosacral ligaments(4-6).

In summary, on the anterior aspect of the pelvic ring, the ligaments of the symphysis hold against external rotation through the sacroiliac joints posteriorly. Posteriorly the posterior sacroiliac complex and the ligaments of the pelvic floor stabilize the pelvic ring. The posterior sacroiliac complex is the most important ligamentous structure for the stability of the ring. Because of the high soft tissue damage associated with pelvic ring injuries, injuries should be ruled out:

- Vascular.
- Neurological.
- Visceral.

The venous plexus in the posterior pelvis shows most of the related hemorrhages. The corona mortis is an anastomosis between the obturator artery and the external iliac artery, its damage in surgery can cause the death of the patient due to hemorrhage(3,4).

### Stability of the pelvis

It is called a stable lesion when it can withstand physiological forces without generating a pathological deformity. Infrequently, perforating traumas cause destabilization of the pelvic ring. Unstable injuries are usually grouped according to the type of displacement:

- Rotational instability: open pelvis accompanied by external rotation or compressed pelvis plus internal rotation.
- Vertical instability: anatomical studies with successive section of the pelvic ligaments establish the apparent participation of each of these to the stability of the pelvis:
  - Isolated symphysis: diastasis pubis 2.5 cm.
  - Symphysis and sacrospinous ligaments: diastasis pubis > 2.5 cm; rotation and not of a vertical or posterior displacement.
  - Sacrotuberous, sacrospinous and posterior sacroiliac symphysis and ligaments; vertical, rotational and posterior instability(5,6).

### Mechanism of injury

It can be divided into high and low energy mechanisms:

- High energy: these are usually generated in traffic accidents, falls from great heights, run over, crushing, motorcycle accidents; they are associated with pelvic ring ruptures.
- Low energy: these are usually generated in trauma with mild impact, avulsion injury by intense muscle contraction, straddle falls; and are associated with fractures of individual bones.

In addition, injuries may occur due to:

- Crushing: entrapment between injurious forces. The duration, position and type of force applied must be taken into account.
- Impact: impact of a moving object against a stationary object. The type of fracture varies according to the magnitude, direction and nature of the force.

Point patterns of injury differ according to the direction of force application:

- Anteroposterior force: external rotation of the hemipelvis. generates opening of the pelvis, by rotating over intact posterior ligaments.
- Lateral compression force: associated with impaction of the cancellous bone. The pattern of injury depends on the site of force application:
  - Posterior half of ilium: generally stable with minimal soft tissue injury.
  - Anterior half of the iliac wing: internal rotation of the hemipelvis. It breaks the posterior sacroiliac ligament complex. May cause displacement of the contralateral hemipelvis in external rotation, forming an ipsilateral lateral compression injury, in addition to a contralateral external rotation injury.
  - Greater trochanter region: related to transverse acetabulum fractures.
- Abduction and external rotation force: can split the sacral hemipelvis when energy passes through the diaphysis and femoral head, with the leg undergoing external rotation and abduction.
- Shear force: usually results in a fracture with triplanar instability subsequent to impairment of the sacrotuberous, sacroiliac and sacrospinous ligaments.

In older individuals, bone resistance in the great majority of cases is diminished in comparison with ligaments, generating bone deterioration before ligamentous deterioration. On the other hand, in young individuals, bone resistance is greater, generating ligament deterioration before bone deterioration(2,4-6,12).

### Clinical Evaluation

In these cases, the ABCDE, airway, breathing, circulation, disability, and exposure should be started and a complete traumatological evaluation should be integrated. Correct and early resuscitation is important, as well as treating life-threatening injuries, evaluating and identifying head, thoracic, abdominal and spinal injuries, without forgetting injuries to the limbs and pelvis,



focusing on the distal neurovascular condition. To find out if there is pelvic instability, the anteroposterior and lateral compression test is performed for one occasion generating internal and external rotation of the pelvis. A dysmetry plus shortening on the affected side can be observed, as well as an alteration of the lower limb in internal or external rotation. When the first clot formed in a retroperitoneal hemorrhage is destructured, the elaboration of a subsequent one is relatively complex due to the hemodilution generated by the administration of intravenous fluids added to the depletion of the previous coagulation factors, for which reason it is traditionally said that the first clot is the best. Bruising in the

region alerts us that a major hemorrhage has occurred. We should also assess for defects that indicate a sacroiliac fracture, sacroiliac dislocation or alterations in the symphysis, with emphasis on looking for signs of an open fracture. As far as possible, rectal and vaginal examination should be performed in polytraumatized individuals with fracture with rupture of the pelvic ring, since an undiagnosed perforation of any of these increases mortality. The spine and extremities should be well assessed accompanied by an adequate neurovascular examination and a thorough neurological examination(3-6,11).

**Figure 1. X-ray showing fracture of the pelvis with external fixator placement.**



Source: the authors.

### Hemodynamic Status

The most common origin of retroperitoneal bleeding secondary to pelvic fracture is rupture of the venous plexus in the posterior pelvis. Retroperitoneal bleeding can be massive. Bleeding may also come from external or internal iliac impairment, leading to heavy bleeding with loss of distal pulses and hemodynamic instability. It is advisable to control bleeding proximally prior to surgical repair. Superior gluteal artery injury can be managed with rapid fluid replacement, pelvic stabilization and embolization. In addition to abdominal bleeding, intrathoracic, retroperitoneal and compartment bleeding should be ruled out(3,5,6).

For timely management and control of bleeding are available:

- MAST, military anti-shock trouser.
- Anterior external fixator.
- Pelvic girdle or hammock around the pelvis.
- Vacuum stabilizing support or bean bag.
- Posterior pelvic clamp or C-clamp.
- Open reduction and internal fixation.
- Open packing of the retroperitoneum.
- Angiography and embolization if bleeding remains after closing the pelvic diameter.

Pelvic bleeding is related to 50% of individuals who die after a pelvic fracture(3,5,6,13,14).

### Neurological Injury

There are usually alterations in the nerve roots and the lumbosacral plexus; the more medial the sacral fracture is, the more the incidence of neurological lesions increases. In the patient with loss of consciousness it is more complex to demonstrate the previously mentioned lesions(5).

Genitourinary and gastrointestinal injuries.

Bladder injuries are present in 20% of pelvic trauma and urethral injuries are present in 10%, the latter with a higher incidence in men compared to women. Intraperitoneal injuries require surgical repair; in extraperitoneal injuries when the urethra is not permeable, a Foley catheter or a suprapubic size is placed, care should be taken to find bleeding on catheterization or in the urethral meatus. When there is suspicion, retrograde urethrography should be performed. Individuals with hematuria and an intact urethra should be referred for cystography, under suspicion of bladder injury. Rectal examination should be evaluated for the possibility of having a floating or high prostate. Perforations in the rectum or anus by bone fragments should be

treated as open fractures. If intestinal entrapment is generated causing obstruction related to the fracture, a discharge colostomy

is recommended. Rectal laceration points out the importance of injury to the individual and the increased risk of death(3,5,15).

**Figure 2. Intraoperative pelvic fracture stabilized with external fixator, showing bladder injury.**



**Source:** the authors.

#### **Imaging Assessment**

The standard imaging tests in trauma are the anteroposterior projections of the thorax, lateral cervical spine and anteroposterior projection of the pelvis.

Anteroposterior projection of the pelvis: this can evaluate previous injuries such as fractures of the pubic branches and displacement of the symphysis; in addition to injuries of the sacroiliac joint, sacral fractures, iliac fractures and fractures of the transverse process of L5.

Among the special projections of the pelvis are the oblique alar and obturator projections, the latter frequently used when an acetabular fracture is to be ruled out.

Entrance projection of the pelvis: it is performed with the individual in the supine position and the X-ray beam at 60° in a caudal direction, perpendicular to the pelvic rim. It is used to determine the anterior or posterior displacement of the sacroiliac joint, as well as the sacrum and the iliac wing. It can identify deformities in internal rotation of the iliac and sacral alterations by impact.

Exit projection of the pelvis: it is performed with the individual in the supine position and the X-ray beam at 45° to the cephalic direction. It can be used to identify the vertical displacement of the hemipelvis, it can also show some delicate signs of pelvic ring

rupture, such as a small expansion of the sacroiliac joint, an interruption of the sacral ridges, the existence of non-displaced sacral fractures or the deterioration of the sacral foramina(5,6).

The abdominopelvic CT scan will provide a broad visualization of the pelvic anatomy, being able to recognize pelvic, intraperitoneal or retroperitoneal bleeding, in addition to showing the presence of hip dislocation, with associated acetabulum fracture. It is also optimal to evaluate the posterior pelvis, both sacrum and sacroiliac joints. MRI has limitations due to the difficult access to the individual with polytrauma, the time delay in the technique and limitations of the equipment itself, however, it usually provides images of excellent quality in the vascular and genitourinary structures(3,5,9,16,17).

To assess vertical stability, traction and compression maneuvers can be used with the patient under anesthesia, the so-called stress projections.

Some authors differ in terms of instability, Tile says that instability is a displacement  $\geq 0.5$  cm, Bulcholz, Kellam and Browner say that instability exists when a vertical displacement  $\geq 1$  cm is generated. Some of the radiographic signs of instability are:

- Posterior fracture line with separation.
- Sacroiliac displacement of 5 mm in any plane.
- Fracture-avulsion of the transverse process of L5.



- Fracture-avulsion of the lateral border of the sacrum involving the sacrotuberous ligament.

- Fracture-avulsion of the ischial spine involving the sacrospinous ligament(5,6).

**Figure 3. Postoperative radiographs of pelvic fracture in different projections.**



Source: the authors.

### Classification

Currently there are different systems for classifying pelvic fractures, based on different categories such as anatomical patterns, mechanisms of injury, resulting instability requiring surgery. In addition to classification, for treatment it is important to remember: the patient's hemodynamics, associated injuries and anatomical damage that impairs pelvic ring function. ATLS considers as hemodynamic instability the individual with: blood pressure less than 90 mmHg and heart rate greater than 120 bpm, in addition to evidence of skin vasoconstriction, decreased consciousness and/or shortened respiration(2,5,6).

Some of the most commonly used classifications are described below.

#### Young and Burgess classification.

This classification algorithm is based on the mechanism of injury and is currently the most commonly used system for the evaluation of pelvic ring injuries(3).

- Lateral compression: this is an implosion of the pelvis following a laterally imposed force which reduces the anterior sacroiliac, sacrotuberous and sacrospinous ligaments. It can cause oblique fractures of the pubic branches. It presents 3 types.
  - Type I: Impaction of the sacrum on the side of impact. Transverse fractures of the pubic branches are stable.
  - Type II: Posterior fracture of the iliac wing in the form of a crescent on the side of impact, with rupture of the posterior ligamentous structures, generating displacement of the anterior fragment. It maintains vertical stability and is related to crush fractures of the anterior part of the sacrum.
  - Type III: Type I or II lateral compression fracture on the side of impact; force continues

into the contralateral hemipelvis to produce an external rotation injury (windswept pelvis) due to rupture of the sacroiliac, sacrotuberous and sacrospinous ligaments. Instability can result in hemorrhage and neurological injury secondary to traction injury on the side of the sacroiliac injury.

- Anteroposterior compression: generated by a direct impact force or by transfer forces in the anterior region of the pelvis, leading to external rotation injuries, longitudinal fractures of the branches or symphysis diastasis. It presents 3 types.
  - Type I: vertical fracture of one or two branches of the pubis, with maintenance of the posterior ligaments; symphysis pubis diastasis 2.5 cm.
  - Type II: diastasis of the symphysis pubis more than 2.5 cm; widening of the sacroiliac joints formed by the rupture of the anterior sacroiliac ligaments. The rupture of the sacrospinous and sacrotuberous ligaments and of the symphysis, without injury to the posterior sacroiliac ligaments, generates the so-called open book injury presenting instability in both external and internal rotation and maintaining vertical stability.
  - Type III: total rupture of the ligaments of the symphysis, sacrospinous, sacrotuberous and sacroiliac, which gives extreme rotational instability plus lateral displacement; without posterior cephalic displacement. It is a completely unstable injury, with the highest rate of vascular injury and bleeding.
- Vertical shear: generated by vertical or longitudinal forces associated with complete rupture of the



symphysis, sacrotuberous, sacrospinous and sacroiliac ligaments. High instability and usually has neurovascular lesions and related bleeding.

- Combined mechanism: as crushing causes vertical shearing and lateral compression(4-6).

#### **Title Classification**

They are classified into several types:(5,6).

- A. Stable. Fractures of the pelvis that do not affect the annulus.
  - A1. Avulsion.
  - A2. Minimally displaced fractures of the annulus, stable.
- B. Vertical stability, rotational instability.
  - B1. External rotation instability; open book injury.
  - B2. Lateral compression injury; ipsilateral only injuries; internal rotation instability.
  - B3. Lateral compression injury; bilateral rotational instability.
- C. Vertical and rotational instability.
  - C1. Unilateral injury.
  - C2. Bilateral injury, vertical instability on one side and rotatory instability on the other.
  - C3. Bilateral injury, on both sides vertical and rotational instability, associated with fractures of the acetabulum.

#### **WSES classification.**

It categorizes pelvic ring injuries into 3:

Minor, WSES grade I: hemodynamically and mechanically stable lesions.

Moderate, WSES grade II and III: hemodynamically stable and mechanically unstable lesions.

Severe, WSES grade IV: hemodynamically unstable lesions regardless of mechanical status(2).

#### **Factors that increase mortality**

Among the main ones we have: (5,6).

- Type III anteroposterior compression.
- Type III lateral compression.
- Vertical shear.
- Old age.
- Cranioencephalic traumas.
- Abdominal trauma.
- Hemorrhagic shock on admission.
- Requirement of large volumes of blood.
- Perineal wounds.
- Open fractures.
- High Injury Severity Score.
- Fracture associated with an infected Morel-Lavallé lesion.

#### **Treatment**

Pelvic fractures are life threatening. The management and treatment of these begins with the ABCDE, this is of essential

importance for all polytrauma. It should be ensured to have double venous access, hypotension must be managed with rapid administration of fluids and if necessary blood products(2,4,18).

When there are signs of pelvic ring rupture, pelvic bandages should not be forgotten, since they reduce hemorrhage and compress bone bleeding by reducing the internal volume of the pelvis, giving a tampon effect. These are usually used only until it is time for definitive repair. To correctly place this pelvic bandage, the girdle must be placed over the greater trochanter and the pubic symphysis, achieving adduction of the legs and reducing the pelvic volume in a good way.

The recommended treatment is variable, so a systematization is required for the correct therapeutic flow. The mechanical stabilization previously mentioned, either with the pelvic girdle or a sheet, collaborates in the stabilization of the pelvic ring and also reduces the internal bleeding of the venous plexus, mainly in pelvic ring lesions of the anterior to posterior compression type; on the other hand, the bibliography does not recommend lateral compression. Skeletal traction is the suggested stabilization for a vertical shearing pelvic ring alteration. External skeletal fixation can also be performed, providing better stability in hemodynamically unstable patients, together with emergency laparotomy(3,5).

Conservative treatment is recommended for the following fractures:

- Almost all lateral compression type I fractures.
- Almost all anteroposterior compression type I fractures.
- Diastasis pubis 2.5 cm.

As far as rehabilitation is concerned, we find that weight bearing must be protected in the first instance, either with a walker or canes. After mobilization, a serial X-ray control is necessary to rule out a probable secondary displacement; if this is detected and if it is greater than 1 cm in the posterior ring, weight bearing should be interrupted, in addition to evaluating the possible surgical treatment with the existence of a clear displacement.

The absolute indications for surgery are:

- Open book fractures or with vertical instability plus hemodynamic instability.
- Open fractures of the pelvis or associated with visceral perforation.

Relative indications for surgery are:

- Symphysis symphysis diastasis greater than 2.5 cm.
- Rotational deformity.
- Sacral displacement > 1 cm.
- Dysmetria greater than 1.5 cm.
- Intractable pain.

Surgical techniques include the following:

- External fixation: it is used for resuscitation of the patient, and can be used in anterior pelvic injuries for definitive fixation; it is not recommended as a final treatment in injuries with posterior instability. Generally it is used in two ways in the first the external fixator is placed on two or three 5 mm nails, 1 cm apart, located on the anterior iliac crest, and the second way or





Hanover's assembly with single nails installed on the supraacetabular surface and in an anteroposterior direction.

- Internal fixation: compared to the external fixator, it presents increased resistance forces in the pelvic ring.

Some special recommendations according to the type of fracture:

- For iliac wing fractures perform open reduction and stable internal fixation using compression screws and neutralization plates.
- For symphysis pubis symphysis diastasis performs plate fixation.
- For sacral fractures, fixation with trans-iliac rods is performed, although it may cause neurological injury due to compression, so fixation with plate or iliosacral screws is frequently indicated to avoid compression of the fracture site.
- For unilateral sacroiliac dislocation, direct fixation using iliosacral screws or anterior sacroiliac plate fixation is indicated.
- For bilateral posterior rupture that generates instability, fix the displaced portion of the pelvis on the body of the sacrum using posterior screws. Lumbopelvic fixation can also be used.

In exposed bladder or rectal injuries, interdisciplinary management between the orthopedic surgeon, the general surgeon and the urologist is necessary. Colostomy is recommended for any open injury that causes contact of the fracture site with fecal matter.

Sacral fractures are likely to generate neurological injury with different percentages depending on their location:

- Denis I: 6 %, lateral to the sacral foramina.
- Denis II: 28 %, crossing the sacral foramina.
- Denis III: 57 %, medial to the sacral foramina.

Decompression of the sacral foramina is recommended in case of progressive neurological deficit; recovery can take up to 3 years.

In postoperative management it is important to eliminate or aspirate respiratory secretions, respiratory exercises, early mobilization, thromboembolic prophylaxis using elastic stockings, sequential compression device and drugs if necessary; if it is not possible to anticoagulate consider filter in the vena cava.

Recommendations for return to walking:

- In the first days, full weight bearing on the lower limb or unaffected sacral side.
- On the affected side, partial weight-bearing for at least 6 weeks.
- Full support, without crutches, on the affected side, after 12 weeks.
- Individuals with unstable bilateral pelvic fractures moving from bed to chair improves the elimination of respiratory secretions. After fracture healing, partial weight bearing on the less severe limb is allowed at approximately 12 weeks(5,6).

### Prognosis

Mortality in pelvic fractures is around 8%, with higher mortality in those who present hemorrhagic shock on arrival. In those individuals who suffer an open pelvic fracture, the risk of mortality increases up to 45%, so we can say that the severity of pelvic fractures is closely related to the associated injuries. Some authors report that the risk of death from an isolated pelvic fracture is between 0.4 and 0.8%(1,4,19,20).

Other bibliographies report that hemodynamically stable patients have a mortality rate of 3%, while hemodynamically unstable patients have a mortality rate of 38%. They also report that in lateral compression, cranioencephalic trauma is the main cause of death, while in anteroposterior compression, pelvic injuries and injuries to the viscera cause death. Anteroposterior compression with posterior instability presents around 37% of mortality, while vertical shearing is around 25%(5,6).

### Complications

- Thromboembolism: deep vein thrombosis may occur due to immobilization, as well as due to lesions of the pelvic venous system.
- Infection: according to studies, it usually occurs with an incidence between 0 to 25 %, nevertheless, an infection of the wound does not condition a bad result. Morel's lesion is a risk factor for infection, which is reduced by posterior percutaneous fixation of the pelvic ring.
- Consolidation in bad position: which can generate substantial disability, and trigger other complications such as:
  - Dysmetria.
  - Chronic pain.
  - Sitting difficulties.
  - Gait disturbances.
  - Lumbar pain.
  - Pelvic outlet obstruction.
- Pseudoarthrosis: infrequent, in order to achieve consolidation, stable fixation and bone grafting are sometimes required. It is usually present in individuals of an average age of 35 years, leaving sequelae such as:
  - Gait abnormalities.
  - Pain.
  - Compression and irritation of nerve roots(5,6).

### CONCLUSIONS

Epidemiologically speaking, we found that most cases of pelvic fractures occur in young people due to high energy mechanisms, in these cases the pelvic ring can be broken, however, injuries can also be generated by low energy mechanisms, which can cause fractures of individual bones. Mortality is higher in individuals with hemodynamic instability. Knowledge of the anatomy is fundamental for the treatment of pelvic fractures and associated injuries. There are several systems for classifying pelvic fractures, according to anatomical patterns, mechanisms of injury, resulting instability requiring surgery. The most frequently used is that of Young and Burgess. The standard imaging examinations in



trauma are the anteroposterior projections of the thorax, lateral of the cervical spine and anteroposterior of the pelvis; within the special projections of the pelvis are the oblique alar and obturator projections. The evaluation should begin with the ABCDE, airway, breathing, circulation, disability, and exposure and integrate a complete trauma assessment. To determine whether there is pelvic instability, the anteroposterior and lateral compression test is performed for one occasion, generating internal and external rotation of the pelvis. The spine and extremities should be well assessed accompanied by an adequate neurovascular examination and a thorough neurological examination. In pelvic fractures, management and treatment begins with the ABCDE. Followed by stabilization of the patient, a multidisciplinary approach is required. External or internal fixation can be performed to stabilize the pelvis, its use and recommendation usually vary according to the characteristics of each fracture, the associated injuries and the instability of the pelvic ring. Pelvic trauma with involvement of the acetabulum and injuries to the genitourinary system should not be underestimated. The severity of pelvic fractures is closely related to the associated injuries. Complications include infection, thromboembolism, malunion and pseudarthrosis.

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# AN ANALYSIS OF INDIA'S AGRICULTURAL SECTOR: CHALLENGES AND OPPORTUNITIES

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## ABSTRACT

*The agricultural sector is a vital part of India's economy, employing a significant portion of the population and contributing significantly to the country's GDP. Despite this, the sector faces numerous challenges, including declining soil fertility, water scarcity, and inadequate infrastructure. In addition, farmers face difficulties in accessing markets, credit, and technology. However, the sector also presents opportunities for growth and development, including the adoption of sustainable agricultural practices, the use of technology to increase efficiency and productivity, and the creation of value-added products. This analysis highlights key areas where interventions can be made to enhance the sector's productivity, sustainability, and profitability, with a particular focus on addressing the needs of smallholder farmers.*

**KEYWORDS:** Agriculture sector, Challenges, Opportunities, Case Studies

## 1. INTRODUCTION

India's agricultural sector has been the foundation of the country's economy for centuries. With over 60% of the country's population engaged in agriculture, the sector plays a vital role in ensuring food security, providing employment and contributing to the country's economic growth. The sector has been facing numerous challenges, including climate change, land degradation, water scarcity, and low productivity, among others. Thus, there is an urgent need to analyse the sector and identify opportunities for growth and development.

The importance of the agricultural sector to the Indian economy cannot be overstated. It is the primary source of livelihood for millions of people in rural areas and provides food for the country's growing population. According to the World Bank, agriculture accounts for 15% of India's GDP and contributes significantly to foreign exchange earnings through exports. The sector also supports various industries, including manufacturing, processing, and distribution of agricultural products, creating job opportunities and driving economic growth.

The purpose of this analysis is to provide insights into the challenges facing India's agricultural sector and explore the opportunities for growth and development. By examining the historical development of agriculture in India, the major crops grown, and the agricultural practices and technologies used, we can identify the factors that have contributed to the sector's success and challenges.

## 2. OVERVIEW OF INDIA'S AGRICULTURAL SECTOR

The history of agriculture in India can be traced back to the Indus Valley Civilization, which flourished around 2600 BCE. The civilization was renowned for its advanced irrigation systems, including the construction of canals and reservoirs. Over time, agriculture became an essential part of Indian culture, with various regions adopting different crops and practices based on their climate, soil, and cultural preferences.

Today, India is one of the world's largest producers of food and agricultural products. The country has a diverse range of crops, including rice, wheat, pulses, oilseeds, sugarcane, cotton, and jute, among others. Agriculture in India is characterized by small and marginal landholdings, with over 85% of farmers owning less than two hectares of land. Traditional methods and practices, including organic farming and crop rotation, are prevalent in the sector.

Despite the success of agriculture in India, the sector faces numerous challenges. Land degradation and soil erosion, caused by deforestation, overuse of chemical fertilizers and pesticides, and poor soil management practices, are significant concerns. Water scarcity and irrigation issues, particularly in arid and semi-arid regions, also pose a significant challenge. Climate change, including changing weather patterns and rising temperatures, threatens agricultural productivity and food security.

The sector also faces challenges related to modern infrastructure and technology. Many farmers lack access to



modern tools and equipment, and traditional storage and transportation methods often lead to significant post-harvest losses. The fragmentation of land holdings and low productivity levels further exacerbate the challenges facing the sector. Finally, the dependence on monsoon rains, which account for over 70% of the country's annual rainfall, leaves the sector vulnerable to weather-related risks.

India's agricultural sector is vital to the country's economy and the well-being of its people. However, it faces numerous challenges that threaten its sustainability and growth.

### 3. CHALLENGES FACING INDIA'S AGRICULTURAL SECTOR

India's agricultural sector faces several challenges that threaten its sustainability and growth. Some of the significant challenges facing the sector are in detail as under:

- **Land degradation and soil erosion**

Land degradation and soil erosion are significant challenges in India's agricultural sector, affecting soil fertility and agricultural productivity. The overuse of chemical fertilizers and pesticides, deforestation, and poor soil management practices have contributed to soil degradation and erosion. As a result, many farmers face difficulties in growing crops, leading to a decline in agricultural productivity.

- **Water scarcity and irrigation issues**

India is home to many arid and semi-arid regions that face significant water scarcity and irrigation issues. The lack of modern irrigation infrastructure and the overexploitation of groundwater resources have contributed to the problem. As a result, many farmers are unable to cultivate their land effectively, leading to a decline in agricultural productivity.

- **Climate change and its impact on agriculture**

Climate change poses a significant challenge to India's agricultural sector. Changing weather patterns, rising temperatures, and extreme weather events, such as droughts and floods, threaten agricultural productivity and food security. Climate change also affects crop yields, leading to lower incomes for farmers and increased food prices for consumers.

- **Lack of modern infrastructure and technology**

Many farmers in India lack access to modern infrastructure and technology, hindering their ability to improve their productivity and profitability. For instance, inadequate storage and transportation facilities contribute to significant post-harvest losses, reducing farmers' incomes. Lack of access to modern tools and equipment also hinders farmers' ability to increase their yields.

- **Fragmentation of land holdings and low productivity**

Small and marginal landholdings, which make up over 85% of India's agricultural land, lead to low productivity levels. Fragmentation of land holdings also hinders the adoption of modern farming techniques and technologies, leading to reduced yields and profitability.

- **Dependence on monsoon rains**

India's agricultural sector is highly dependent on monsoon rains, which account for over 70% of the country's annual rainfall. Delayed or inadequate monsoon rains can lead to

droughts and crop failures, causing significant economic losses for farmers and affecting food security in the country.

India's agricultural sector faces significant challenges that threaten its sustainability and growth.

### 4. OPPORTUNITIES FOR INDIA'S AGRICULTURAL SECTOR

Despite the challenges facing India's agricultural sector, there are several opportunities for growth and development in the sector.

- **Increasing domestic and global demand for food and agricultural products**

India's population is expected to reach 1.7 billion by 2050, leading to an increase in demand for food and agricultural products. Additionally, global demand for agricultural products is also on the rise. India has the potential to become a significant player in the global food market, with the country's diverse agro-climatic conditions and vast agricultural resources.

- **Rising income and changing dietary habits**

As the Indian economy continues to grow, rising incomes and changing dietary habits are expected to drive demand for high-value crops, such as fruits, vegetables, and dairy products. This presents an opportunity for farmers to diversify their crops and increase their incomes.

- **Advancements in technology and research**

Advancements in technology and research, such as precision agriculture, biotechnology, and digital agriculture, can help increase agricultural productivity and efficiency. Developing new crop varieties resistant to pests and diseases, drought-tolerant, and high-yielding can help increase crop yields and farmer incomes.

- **Government initiatives and policies**

The Indian government has launched several initiatives and policies to promote agricultural growth and development. These include the Pradhan Mantri Fasal Bima Yojana, the Pradhan Mantri Krishi Sinchai Yojana, and the eNAM (National Agriculture Market) platform. These initiatives aim to improve irrigation infrastructure, increase access to credit, and modernize marketing and storage facilities, among other things.

- **Potential for exports**

India has the potential to become a significant exporter of agricultural products, given its vast agricultural resources and diverse agro-climatic conditions. The government has identified agriculture as a priority sector for export promotion, and several measures have been taken to facilitate exports, such as the establishment of export-oriented units and export promotion zones.

India's agricultural sector has several opportunities for growth and development. The government, farmers, and other stakeholders need to work together to harness these opportunities and address the challenges facing the sector to ensure its sustainability and growth.



## 5. CASE STUDIES

### *The Story of Mr Subhash Palekar*

Mr Subhash Palekar is a farmer from Maharashtra who has achieved tremendous success in organic farming. He has developed a unique farming technique called "Zero Budget Natural Farming" which relies on natural inputs and techniques to improve soil health, crop yields, and farmer incomes. Mr Palekar's success can be attributed to his innovative approach to farming, which is based on the principles of sustainability and self-sufficiency. He has also been successful in promoting his farming technique to other farmers through workshops and training programs.

#### *Lessons Learned*

- Innovation and creativity are essential in agriculture.
- Sustainability and self-sufficiency are critical principles for success.
- Sharing knowledge and promoting best practices can benefit the entire farming community.

### *The Story of Sikkim's Organic Revolution*

Sikkim is a small state in India that has achieved 100% organic farming. The state government launched an initiative in 2003 to promote organic farming and ban the use of chemical fertilizers and pesticides. The initiative has been hugely successful, and Sikkim has become a model for sustainable agriculture in India. The success of Sikkim's organic revolution can be attributed to several factors, including political will, community participation, and a focus on education and awareness.

#### *Lessons Learned*

- Political will and support are crucial for successful agricultural initiatives.
- Community participation and ownership can lead to sustainable results.
- Education and awareness play a vital role in promoting sustainable practices.

### *The Story of Patanjali Ayurveda*

Patanjali Ayurveda is a fast-growing company in India that produces a wide range of organic and natural products, including food, personal care, and health care products. The company has achieved tremendous success in a short period, thanks to its focus on natural and organic products, which are increasingly popular among Indian consumers.

Patanjali's success can be attributed to several factors, including a focus on quality, affordability, and innovation. The company has also been successful in marketing its products through social media and other channels, reaching a wide audience across India.

#### *Lessons Learned*

- Quality and affordability are essential factors for success in the agricultural sector.
- Innovation and creativity can help differentiate products in a competitive market.
- Effective marketing and communication strategies can help reach a wide audience and promote brand awareness.

These case studies highlight the importance of innovation, sustainability, community participation, education, quality, affordability, innovation, and effective marketing strategies in achieving success in India's agricultural sector. These lessons can be applied to other farming practices and businesses to help promote sustainable and profitable agricultural growth in India.

## 6. CONCLUSION

India's agricultural sector faces several challenges such as land degradation, water scarcity, climate change, lack of modern infrastructure and technology, low productivity, and dependence on monsoon rains. However, there are also several opportunities for growth, including increasing demand for food and agricultural products, rising income and changing dietary habits, advancements in technology and research, government initiatives and policies, and the potential for exports.

Through the analysis of successful case studies, we have learned that innovation, sustainability, community participation, education, quality, affordability, and effective marketing strategies are critical factors for success in the agricultural sector.

To improve India's agricultural sector, there is a need for government policies that promote sustainable and profitable farming practices, increased investment in modern infrastructure and technology, and greater collaboration between the government, private sector, and farmers. There should also be a focus on improving education and awareness among farmers and the wider public about sustainable agriculture practices.

The agricultural sector plays a crucial role in India's overall development and growth, providing employment to a large section of the population and contributing significantly to the country's GDP. Therefore, it is vital to ensure the sustainability and growth of the sector for the benefit of both the farmers and the country as a whole.

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# THE MEANING OF FREEDOM OF SPEECH IN MODERN SOCIETY IN THE THEORY OF AUTONOMY

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## ANNOTATION

*The article deals with the main aspects affecting the freedom of speech in the modern society. It is indicated that for the freedom of expression of thoughts a number of conditions are necessary that persist throughout the long historical development of human civilization. At the same time, certain restrictions are imposed on the expression of ideas, opinions in the event that they affect the feelings, dignity of other people and groups of the population. The theory of the autonomy of freedom of speech is considered in detail.*

**KEYWORDS:** *freedom of speech, society, democracy, social groups, civil rights.*

## INTRODUCTION

The meaning of freedom of speech is to appeal to other people and at the same time have some support, a foundation. A person's speech, in order to have value for him, must have the potential for perception. Without this, freedom of speech, at least for some, is freedom without its special value. So, for example, Robinson Crusoe had absolute freedom of speech, but without the presence of an audience, listeners, this opportunity seems shaky,

losing its significance. This is due to the fact that there is no feedback, reaction coming from listeners, dialogical forms of interaction.

What exactly this implies remains to be determined. First of all, it is necessary to fulfill the condition that a convincing view of freedom of speech should address the question of real opportunities to speak out.

In general, four criteria have been developed by which it is advisable to evaluate existing theories of freedom of speech:



**Figure 1. Criteria for evaluating existing theories of freedom of speech (compiled by the author)**

## LITERATURE REVIEW

The famous consequentialist argument of John Stuart Mill [1] in favor of freedom of speech states that its purpose is to make our views and opinions on controversial issues more reasonable; only thanks to their susceptibility to challenge and criticism, these opinions can be clarified and improved and progress will be made towards the discovery of the truth.

The democratic defense of freedom of speech, first considered by A. Meiklejon in 1948, draws attention to how the dissemination of ideas in the public culture of society is connected with the exercise by citizens of their democratic role in assessing political activity and helping to determine state policy the right direction.

As with other approaches, the argument takes several forms. The post [2] asserts that citizens cannot reasonably consider themselves the authors of the law if they had no real opportunity to influence the course of public discussion.

The theory of autonomy of freedom of speech can be presented in different ways - as a procedural theory based on listeners, as, for example, in Scanlon's work, or as a meaningful ideal.

K. Edwin Baker [3], for example, presents a meaningful speaker-oriented point of view that considers the possibility of speaking as related to the ideal of self-governing life.



## RESEARCH METHODS

It is advisable to carry out a critical analysis of classical theories. Currently, there are three classical theories of freedom of speech, which are evaluated according to the four criteria mentioned above.

Freedom of speech is a necessary tool for achieving these goals. While Mill's consequentialist argument may explain the peculiarity of freedom of speech in comparison with other freedoms more generally, its scope will be limited to cases where it is a question of achieving more convincing views or at least, improving deliberative abilities. However, in many cases, the conditions under which these two goals are realized are associated with relatively strict regulation of speech, excluding, for example, fake news or the transmission of culturally orthodox views. In other words, what makes freedom of speech special can often be better achieved by regulating rather than protecting certain forms of speech.

When the aspect of strictness is considered, it seems that, based on Mill's consequentialist argument, speech, such as that in which the dignity, honor of other people, their internal moral and spiritual principles, religious attitudes are affected, should not enjoy protection, if it exists at all. Conversely, although it is difficult not to agree that speech about controversial social, political and related issues in which people seek to improve their views deserves high protection, other intuitively valuable ways of speech seem to go beyond the consequentialist argument [4].

For example, ritual speech within a closed religious organization concerns the ultimate issues of truth and meaning, but as for the adherents of religion, these issues have already been resolved. If such speech is of high value, its source cannot be its contribution to the open and critical process of discovering the truth.

Consequentialism assumes that human well-being is regarded as valuable not in itself, but as an element of more, the property of society [5]. This means that neither the interests of the speakers nor the interests of the listeners have an independent weight apart from calculating the overall utility for the community to which they belong. In a democratic society, this is most fully manifested [6].

As for the ability to speak – the last criterion, the consequentialist theory is silent about this. With a more balanced interpretation of Mill's argument, perhaps an argument could be made that individuals deserve substantial opportunities to develop their deliberative abilities, but this would be a teleological goal, not a matter of law. And, in any case, this argument does not seem to guarantee such opportunities for those whose speech will do little to form more convincing or correct views.

A person uses speech when discussing his goals and aspirations with others, and, of course, in the implementation of independently selected projects, in cooperation with others. Moreover, speech is a means by which a person communicates his thoughts to others and ponders the answers received. If autonomy is interpreted as a substantial ideal, then it is not

difficult to understand how it can demand that individuals have the opportunity to express themselves fully, and not just formal freedom of speech.

But according to other criteria, the autonomous approach is less clear. Firstly, the ideal of individual autonomy opposes that people should be obliged or influenced by others in any area of their lives, so freedom of speech does not represent any special feature in this theory.

In general, there is no categorical difference, that is, between the restriction of autonomy, which does not allow the speaker to communicate his views to others, and other types of restrictions on autonomy, such as restrictions on freedom of movement or freedom of religious conscience [7]. At the same time, some forms of particularly valuable speech do not seem to involve each of the substantially autonomous agents. The ceremonial speech of religious adherents, which was mentioned above, is an example of this.

So are the inflammatory speeches that the audience hears from speakers at political rallies, or at least the instinctive reaction of the audience. As in the previous example, it can be argued that this kind of speech is especially valuable, even if it does not seem to be an example of autonomous activity.

The autonomous approach is also subject to the problem of internal balance. Phenomena such as hate speech and pornography infringe on the autonomy of those they are aimed at. Thus, it is necessary to make a choice between (and judge the significance of), on the one hand, limiting the autonomy of potential speakers in order to protect the autonomy of listeners (including third parties), or, on the other hand, protecting autonomy. speakers with a known consequence of infringement of the autonomous interests of listeners. This is an internal balancing act, which was mentioned earlier, when the same basic value stands both for and against freedom of speech.

## CONCLUSION

Thus, the exercise of political power is illegitimate if citizens have not had the opportunity to express their opinion, to speak out against possible laws and proposals. In a democratic society, speech should be interpreted in a relatively broader sense, including not only official political speech, but also literature and art, cultural commentary and social criticism.

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## SOME CONSIDERATIONS ABOUT THE BOOK TRADE IN EASTERN COUNTRIES IN THE MIDDLE AGES

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### ANNOTATION

*This article highlights some aspects of the book trade in Eastern countries in the Middle Ages. In it, the author focused on the emergence of book trade in Eastern countries, its territorial and social characteristics, and the factors that caused the emergence of international book exchange markets.*

**KEY WORDS AND PHRASES:** *Middle Eastern countries, Middle Ages, book, book trade, merchants, cover, paper trade, manuscripts, workshops, Middle Eastern countries, Mowarounnahr, calligraphy.*

## НЕКОТОРЫЕ СООБЩЕНИЯ О КНИЖНОЙ ТОРГОВЛЕ В ВОСТОЧНЫХ СТРАНАХ В СРЕДНЕВЕКОВЬЕ

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### Аннотация

В данной статье освещаются некоторые аспекты книжной торговли в восточных странах в средние века. В ней автор сосредоточил внимание на зарождении книжной торговли в странах Востока, ее территориальных и социальных особенностях, факторах, обусловивших возникновение международных книгообменных рынков.

**Ключевые слова и фразы:** страны Ближнего Востока, Средневековье, книга, книготорговля, купцы, обложка, торговля бумагой, рукописи, мастерские, страны Ближнего Востока, Мовароуннар, каллиграфия.

The development of paper production in the countries of the middle and middle East after the 8th century opened a wide path to the development of calligraphy networks, the continuous preparation of manuscript books, their distribution in society and the emergence of an international book exchange market of the muslim cultural world. The book entered the trade as a commodity – handling item for the first time after antiquity. In addition to beautifully decorated, expensive manuscript books, inexpensive books began to be produced. These are mainly works of religious content, treatises on natural sciences, scientific works on the field of philosophy, history, literary studies, geography, books of a harmonious and bibliographic nature.

According to Nazareth Khusraw (1004-1088 BC), the great thinker of our land, who lived in the 11th century, the books of poets and scholars were brought to Turkestan from the middle East relatively quickly compared to the goods of attentive merchants [1. P. 16]. There was a book market in every big city for trading books and these booker would have a place next to the workshops of sahhofs who had the last processing of the book. In Turkestan, dealers in manuscript books and writing weapons are called kitobfurush, tajiri kutublar, and special places where books are sold are called "rastai kitobfurushon" [2. P. 22].

In the middle ages, the book markets of Mowarounnahr, which famous spread, were in cultural centers such as Bukhara, Samarkand, Shahrisabz, Termez, Kokand, Khojand,



Urganch, Khiva, Chorjoi. At the same time in any market it was possible to buy a book on Friday or other days of the week.

One such book market was in Bukhara, where Ibn Sina had bought a commentary book written by Abu Nasr Farabi on the "Metaphysics" of Arastu (Aristotle), which was necessary for him. About this, he writes in his biography: "After reading the book "Metaphysics", I did not understand anything, the author's goal remained to me until the darkness. One day, the seller loudly praised his book. He also recommended the book to me. I answered him bitterly and said to myself: "there is no use in this science." The seller, however, insisted and began to approve: "take, I'll give this book cheaply, the owner is in dire need of money". When I buy this book for three dirhams and look at it, it is a work of Abu Nasr Farabi's "Theses (commentaries) of metaphysics". As soon as I came home, I began to read the book. The main content of the book became clear and all the difficult aspects were clarified [3. P. 49]. This passage from Ibn Sina dates back to the 10th century, indicating that book trade was widely established in those times.

Markets had special sahhof workshops for trading books, which in turn also served as bookstores [4. P. 89].

The book trade in those times consisted of: new works of local authors and scientists; works of poets, historians, philosophers of the near and middle east countries, beautifully copied by calligraphers in the cities of Movarounnahr and reproduced by sahhof into a certain form; books of repaired domestic and foreign authors; books brought by local or foreign merchants in caravans along with other goods.

The owner of the bookstore made a contract with the secretaries so that any order could copy from one book or another, repair the land on which the text tried, restore lost sheets and prepare a new cover for the book. The rule adopted throughout the muslim world was that a bookstore was chosen as a permanent meeting place by local book lovers and people who appreciated the book, and the place was the site of various debates and discussions on literary, religious, biblical art, secretarial fields. The famous orientalist prof. E. E. Bertels writes: "...One of the interesting aspects of the literary life of this period lies in the fact that literature is distributed among all classes of society... In the 15th century, interest in literature became public, with ...within the poets, many were merchants, and within the artisans, musicians, darwesh, shaikh, and qalandars, there were also a large number of poets. ...At the time, bookstores in the market were a favorite place for word art lovers" [5. P. 219].

In another setting, he writes, "...the cost of the paper was high and the book was expensive. But even so, it was still possible for middle-aged people to buy books. Herot markets had bookstores, where literary enthusiasts could find any new work. These shops were the gathering place of the herotic poet and master of words" [6. P. 28].

Some booker moved from city to city with book collections, took up book sales, and offered rare books to patrons of statesmen science. Book fans, collectors found and hired intermediaries on the condition that they bring the necessary books. For example, Ibn Sina bought a number of

books on a philosophical topic tojiri kutub, a Baghdadi merchant [7. P. 45-46].

From an excerpt from Ibn Sina's "Biography", it is seen that a scholarly book copied as a textbook-manual in Bukhara in the 10th century was relatively cheap, and stood 3 dirhams. But the prices of books brought from abroad were high. For example, the books cited to Isfahan for Ibn Sina from Baghdad in the 20 years of the XI as were considered expensive by the scholar [8. P. 51]. In Baghdad in the 12th century, Farabi's collection of works was sold for 20 dirhams, and 4 volumes of Hippocratic wisdom stood at 30 dirhams, along with Galen's commentaries [9. P. 331].

The historical sources of the middle ages have extremely little information about the book trade. And, it is understandable, the bookseller, the number of bookstores in the city, the price of the book, its wholesale and retail price were from everyday and constant work, which was ignored by people of that time. That is why information about book sales, the condition of stores, the cost of a book can be found out from fragments of literature in historical, memoir, letter and fiction books, and at the same time from the characters that the owner of the book, buyers put on book sheets.

There is some information about the peculiarities of the activities of the booker, about the book market and shops in sources dating back to the 19th century. Mir Izzatulla, who was on a trip in Turkestan in 1812-1813, writes that in the center of Bukhara city, around the commercial structures, there were many bookers. The magnificent book market was at the base of a three-domed market built by Abdullah Khan II of the Shaybanid dynasty, known as the "Abdulla Khan timi". More than 30 bookshelves occupied part of this huge building [10. C. 24].

About the book trade of the middle of the XIX century, their various nebulae, the Orientalist of mojour (Hungarian) H. Wambery it is possible to report using messages. In time, where he was in Turkestan, he saw special book markets in cities and provinces. And in one such book market in Bukhara, he counted 26 bookstores. H. Wambery observed that "the house of the booksellers would serve as a book depository", where it was a book treasure, which was of extremely great importance to historians and philologists [11. P. 63]. Undetected, Wambery travelled disguised as a darwesh in an attempt to gain access to places where Europeans could not go.

The "most important book market" in Turkestan records the Bukhara book market in 1897 by archaeologist and orientalist V. L. Vyatkin published [12. P. 10]. He notes that most booksellers were also involved in sahihfism. During this period, the fame of calligraphy declined, and calligraphers could not compete with typesetting machines. Only if the calligrapher does not work for the market and fulfills any order, his labor is well paid. "For merchants, the real treasure was that," writes V. L. Vyatkin, -if any bookkeeper who had knocked down a book for decades died, his library would remain an ignorant heir. At this time, merchants came to distribute the library, the library was sold at a low price, went hand in hand and there was no trace left of it" [13. C. 15].

In place of the conclusion, it can be noted that from the beginning to the end of the middle ages, domestic book trade



and International Book Exchange in Central Asia were carried out on a large scale and continuously. The intensity of the book trade only subsided in times of war, conflict, destruction. But, sometimes, in calm, dark, relatively prosperous times, not only in cities, but also in villages, the book would become the main need for different segments of the population.

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# HISTORICAL - ETYMOLOGICAL CLASSIFICATION OF ONOMASTIC UNITS IN EPISODES

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## ABSTRACT

*The article examines the historical and etymological layers of anthroponymic units used in the text of epics such as "Oyparcha", "NuralivaSemurg" and "Jorhunmaston", "Kelinoy" written by the Kashkadarya folk poets UmurSafarov, KadirBakhshiRahimov, Kara BakhshiUmirov. As a result of the research, it was found that the names of the people in the sagas are composed of Turkish (Uzbek), Arabic, Persian-Tajik, and Jewish layers and were analyzed on this basis.*

**KEY WORDS:** Epic, "Oyparcha", "NuralivaSemurg" and "JorhunMaston", "Kelinoy", onomastic unit, anthroponymic unit, historical etymological layer, own layer, acquired layer, Turkish, Uzbek, Arabic, Persian-Tajik, Yiddish names, epic hero, real names, fake names.

## ENTER

Our linguists have conducted a number of scientific studies to study the lexical layers of famous nouns. Professor E. Begmatov's work on researching the lexical layers of the appellative lexicon at this university is commendable [1]. In the scientist's monograph on the anthroponymy of the Uzbek language, working information is given, especially the lexical layers of proper nouns. The scientist writes in this regard: "... the lexical layer is typical for anthroponymy. Because its appearance from one language to another is also typical for bringing a certain anthroponymic quality to it. For example, Turkic languages have had words that are Turkic based on their genetic and lexical basis since ancient times. On top of that, Mongolian, Persian-Tajik, and Arabic names have been adopted into Turkic languages..." [2,175]. This recognition of the scientist is reflected in all works devoted to anonymity. Based on the research of our scientists, we will try to analyze the anthroponymic units in the epics "Oyparcha", "NuralivaSemurg", "JorhunMaston", "Kelinoy" belonging to the series of Kashkadarya folk epics.

## THE MAIN PART

The study of anthroponyms, one of the onomastic units used in the language of the epic involved in the analysis, is considered one of our scientific research's main issues. It is known that the names of epic heroes are widely used in the language of folk epics, and it is appropriate to analyze them by combining them into certain lexical groups according to their genealogical characteristics. In the works performed in this field, it is recommended to study the names of epic heroes according to which language they belong to, separating them into anthroponyms related to their own layer and the adopted layer. In addition, the names of legendary heroes are often found in the language of folk epics. It is planned to separate them into separate groups according to their attitude to reality. Using the

research methods used by our linguists, we found it acceptable to divide the anthroponyms found in the language of the epics "Oyparcha", "NuralivaSemurg", "JorhunMaston" and "Kelinoy" into the following two main groups:

- 1) groups of epic hero names according to which language they belong to;
- 2) groups of epic hero names according to their relation to reality.

1. The names of epic heroes can be divided into groups as names borrowed from Turkish (Uzbek), Arabic, Persian, and other languages, depending on the language they belong to.

Names related to the Turkic language include anthroponyms that have been in use in the language of the Turkic peoples since ancient times. This group also includes names formed by adding a word (affixoid) to an Arabic or Persian-Tajik base. Therefore, Turkish names can be divided into subgroups such as purely Turkish, Turkish names made by adding words to the Arabic base, and Turkish names made by adding words to the Persian-Tajik base.

A number of anthroponyms are used in the language of epics that we have included in the analysis, and it is clear that the study of their genealogical layers is of great importance for the research of the lexicon of the language of folk epics.

More than a hundred anthroponyms are used in the epic language. They are: Yunuspari (NS), Misqolpari (NS), Gorogli (NS), Avaz (NS), Hasan (NS), Karakhan (NS), Uzumko'z (NS), Gulnor (NS), Nurali (NS), Guloyim (NS), Ahmed (NS), Khizr (NS), Ali (NS), Saqibulbul (NS), Mustafa (NS), O'tan (NS), Kochar (NS), Malin (NS), Sherman (NS), Farmon (NS), Jabbar (NS), Mengtosh (NS), Jong'il (NS), Qubbanoi (NS), Mahmudkhan (NS), Zarkokil (NS), Musa (NS), Jesus (NS), Maryam (NS), Hotam (NS), Jahangirjan (NS), Ma'murkhan (NS), Vali (NS), Qumri (NS), Yusuf (NS), Rustam (NS), Chori (NS), Durbek (NS), Yaqub (NS), Karakhan (NS), Shodmon



(NS), Konog (NS), Karagai (NS), Asad (NS), Kara (NS), Uldan (NS), Guldan (NS), Ali (NS), Gali (NS), Qahhor (NS), Samad (NS), Sattar (NS), Mansur (NS), Muhammad (NS); Kholyor/Kholiyor (JM, K), Nurali (JM), Askar (JM), Soqi (JM), Khoja Yusuf (JM), G'ani (JM), BoboZangi (JM), Gulnora (JM), Jorhun (JM), Gapsarshah (JM), Gulisanobar (JM), Donish (JM), Asad (JM), Shodmon (JM) (JM), Gulruksar (JM), Kadir (JM), Malik (JM), Murad (JM), Abdiolim (JM); Shaniyaz (O), Olovkhoja (O), Oyparcha (O), Vazirsha (O), Chambar (O), Ovul (O), Malla (O), Marday (O), Rahmat (O), Mirza (O), Bekmirza (O), Farmon (O), Tonjurkhan (O), Kholdorkhan (O), Kichkintoy (O), Kagajon (O), Tokson (O), Chuvdali (O), Shodmon (O), Gulparcha (O), Kholparcha (O), Bahavuddin (O), Mansur (O), Aman (O), Yamon (O), Kochar (O), Sohibqiron (O), Sohibjamol (O); Shukuraliboy (K), Norguloy (K), Rahmat (K), Ghulam (K), Sherdan (K), Omongeldi (K), Ergash (K), Jopsok (K), Khojamuhammad (K), Farhad (K), Majnun (K), Dono (K), Nazar (K), Rajab (K), Ismail (K), Tahir (K), Zuhra (K), Sherna (K), Noraliboy (K), Khalil (K), Khidirali (K), Bibigul (K), Boritosh (K), Suluv (K), Barchinoy (K), Ermatboy (K), Tolmas (K), Sherali (K), Gulandom (K), Alpomish (K), Khudoyberdi (K), Aydin (K), Pirmat (K), Gulsim (K), Khaldan (K), Abdullah (K), Hazratqul (K), Janda (K), Usman (K), Abdiqadir (K) and others. We think that the analysis of these anthroponyms according to their genealogical characteristics will be useful in researching the genealogical layers of Uzbek language onomastics and in determining whether they performed a certain methodological task in the epic language.

As we know, the appellative lexicon of the Uzbek language is genealogically divided into words borrowed from Turkic (including Uzbek), Arabic, Persian-Tajik, and other foreign languages. As noted by E. Begmatov, this classification can also be applied to the onomastic units of the Uzbek language. In addition, this situation is evident in a number of studies of our linguistics. Based on this, we found it appropriate to study the anthroponyms used in the language of the Bakhsh epics, dividing them into certain layers according to their genealogical characteristics. We will try to analyze the anthroponyms used in the epics below.

**1. Turkish names.** Names belonging to Turkic languages occupy an important place in the text of epics. For example, such names as; Erdon, Ergash, Oypari, Khanimoy, Hazratqul, Gorogli, Oysuluv, Oyparcha, Avaz, Avazkhan, Uzumkoz, Bobozangi, To'lak, Jongil, Ko'char, Mengtosh, Ko'nokboy, Noqboy, Ovul, Malla, Tokson belong to this layer.

The anthroponyms belonging to this layer can be divided into other microlayers according to their origin and artificiality. If names like Ergash, Tokson, Erdon, Jongil, Jobsoq, Avaz, and Tolak are separated as root names, names like Oyparcha, Khanimoy, Hazratkul, Uzumkoz, Gorogli, Bobozangi, Kaysarbek, Begali, Avazkhan have the status of artificiality. Among the names classified as Yasama, there are also anthroponymic units made by adding Arabic or Persian-Tajik bases. They have the following characteristics:

a) Turkish names formed by adding a word or affix to an Arabic base: Dur+bek, Amon+geldi, Kaysar+bek, etc.

The name Durbek, found in the epic language, is morphemically divided into two components: Dur+bek. The first part of the morpheme is the name of a person borrowed from the Arabic language, and the second part is an affixoid added to anthroponyms. Affixoidbek actually means ruler, chief, king. "In the composition of the names, there is a high-ranking, honorable, prestigious; it expresses the meanings acquired by the grown-up" [3, 584].

The anthroponym Omongeldi is also composed of two morphemes: Omon+geldi. Aman is a word borrowed from the Arabic language, and 51 words (names) based on this are listed in the "Uzbek Names" dictionary. The second part of the anthroponym is an Uzbek word. In the dictionary "Uzbek names" we see that the morpheme geldi is explained as the main form of the morpheme keldi [4, 322-324].

b) Turkish names formed by adding words to the Persian-Tajik base: Norali, Pirmat, Gulqiz, etc. These anthroponyms also have two morphemes, the first morphemes Nor, Pir, Gul are borrowed from the Persian-Tajik language, the second morphemes of the names are ali, mat are Arabic, and the morpheme girl is Uzbek. The second part of Pirmat's anthroponym is indicated in the dictionary of names as a shortened form of the name Mat Muhammad [5,341].

## 2. Arabic names

During the period of Arab rule in Central Asia, Uzbek-Arabic language contact was established. During this period, the Arabic language was widely spread as the language of state and religion, as the language of science and official correspondence. Arabic was forcibly taught to the local population as the language of state and science, especially as the language of religion. As a result, representatives of the local population have reached the level where they can write and speak Arabic in addition to their mother tongue.

The Arabic language influenced the Uzbek language not only as the language of religion - Islam, but also as the language of science, the language of official-departmental style, and the language of fiction. The acquisition of words from the Arabic language increased mainly during the period of Uzbek-Arabic bilingualism (VIII-IX centuries). Thus, the social and political processes that took place in the history of the nation left their mark on its language. The occupation of Central Asia by the Arabs and their long-lasting rule, as well as the fact that the people living there were influenced by the Islamic religion for centuries, caused the absorption of Arabic words into the language of the local population, especially into its lexicon.

It is recognized in some works that the words characteristic of the Arabic language were transferred to the language of the peoples of Central Asia through written literature, mainly through the literature of the Iranian languages. Some of the words that were historically transferred from the Arabic language have changed, and now it is not noticeable that they have been transferred from another language. According to Professor F. Abdullaev, "we completely assimilate such words and make them our own words, we make new words from them with the help of formative additions" [6, 89].



There are anthroponyms borrowed from other languages in the epics "Oyparcha", "NuralivaSemurg", "JorhunMaston" and "Kelinoi". For example, names such as Yunus, Yusuf, Moses, Jesus, and Adam borrowed from the Yiddish language are mentioned in the text of the epics we are studying.

The anthroponyms used in epics can be divided into the following layers according to their relationship to reality:

1. Names of historical figures. Names like Sahibqiran, Babir (Babur) belong to this layer. The author does not directly participate in the events of the epic, but is used for a certain poetic purpose.

2. Prophets, saints and prophets, religious figures, as well as names related to religious concepts and beliefs are found in the language of the epics "Oyparcha", "NuralivaSemurg", "JorhunMaston" and "Kelinoi". Because poetic heroes face various difficult situations and to get rid of them, they worship prophets, saints, and prophets. They receive blessings from religious figures. The name of Saint Bobozangiis mentioned in the language of the epic "JorhunMaston". In the languages of the other two epics, there are anthroponyms related to this field, and in the epics, names related to the appellative lexicon such as Haji, Mullah, Gado, and Eshon are widely used.

3. Traditional names that are active in the language of Uzbek folk epics. We include anthroponymic units found in many folk epics and artistic epics in such names. The epics "Oyparcha", "NuralivaSemurg", "JorhunMaston" and "Kelinoi" are written in the language of Yunus, Hasan, Misqal, Karakhan, Rustam, Gorogli, Nurali, Gulonor, Alpomish, Barchin, Khizr, Vomik, Uzro, Tahir, Zuhra, Shaniyaz, Shohnodir, Nurali, Gorogli, Avazkhan, Yunuspari, Misqolpari, Soqi are names. The anthroponyms such as Rustam (RustamiDoston), Gorogli, Yunuspari, Misqalpari, Hasankhan, and Avazkhan used in the text of the above epics can also be found in the text of other epics.

Based on the above analysis, it can be said that the study of genealogical features of anthroponymic units found in the language of folk epics can provide rich material for studying the lexicon of the language of Kashkadarya epics.

Arabic names also play an important role in the epic. Ali, Asad, Ahmed, Vali, Khalil, Ma'mur, Nazar, Mahmud, Hazrat, Qahhar, Rahmat, Qaisar, Qambar, Nurali, Misqal, Soqi, Ghani, Jorhun, Mustafa, Muhammad, Khizr, Qumri, Hotam, Anthroponyms such as Hasan, Jabbar, Ghaffar, Rahim, Ma'murkhan, Mansur, Soqi, Malik, Murad are taken from the Arabic language and are found more or less in the current anthroponymic lexicon. Among the Arabic names, such as Misqal and Jorhun are common names in the language of folk epics and artistic epics, and are used from the point of view of performing a methodological task in the language of these epics. Anthroponyms such as Asad, Hotam, Hasan, Soqi, Rahmat, Nurali are directly the names of poetic heroes of the epic.

### 3. Persian-Tajik names

The Turkic peoples have been in contact with the Iranians, who have lived in Central Asia since ancient times. Therefore, the elements of the modern Turkic languages and

Uzbek, the Sugdian and Khorezmian languages, should be considered the result of interlinguistic contacts that took place in ancient times.

Traces of Iranian languages are especially noticeable in the lexicon of all dialects of our republic. Prof. According to O. Madrakhimov, "the lexical layer related to the core of Iranian languages has become an organic part of the lexicon of the Oghuz dialects in Khorezm. They are words expressing necessary and important concepts that are often used in everyday life" [7, 49]. It is safe to say that these ideas apply to other dialects as well. These acquisitions are embedded in the language of all dialects to such an extent that it is sometimes difficult to even notice that these elements belong to another language family. The main reason for this, as Academician Sh.Shoabdurahmanov noted, "Persian words did not enter the Uzbek language and dialects only through literature, but because of the necessity of the peoples living together and cooperating for centuries, in direct relationship with each other."

It was observed that Persian-Tajik names were used less than Turkish and Arabic names in the language of epics. Names such as Gulpari, Norguloy, Guldon, Gulonor, Kholyor, Farman, Mirza, Chori, Zangi, Gulinor, Donish, Shodmon, Shaniyoz, Shahnodir are borrowed from these languages. All these names are considered poetic names. For example, Gulpari is the name of one of the main characters of the epic "Nurali and Semurg". Guldan is the name of a maid whose name is mentioned in the epic.

### 4. Jewish names

In the course of the development of Turkic languages, they also adopted words from the languages of non-Turkic peoples. We came across this process in the process of etymological analysis of anthroponyms in the text of folk epics that we are researching. In addition to Arabic and Persian-Tajik names, we also found Jewish names in the text of folk epics.

It was observed that Jewish names are used less often than Turkish, Persian-Tajik, and Arabic names in epics. Names such as Adam, Solomon, Yunus, Yusuf, Moses, Maryam, and Jesus are derived from this language. All these names are religious figures used in the text of epics, as well as names related to religious concepts and beliefs.

## SUMMARY

In conclusion, it can be recognized that a certain part of the anthroponyms in the text of Kashkadarya folk epics is names related to their own strata. Among the anthroponyms in the language of the four epics, 22 belongs to the basic Turkic layer. Most of the anthroponyms in the text of epics are units of the acquired layer. It was observed that 34 Arabic names, 28 Persian-Tajik names were used. There are very few Jewish names. The reasons for this are directly related to the fact that the roots of folk epics go back to the past.

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# HEAVY METAL CONCENTRATION IN SOFT SEDIMENTS OF RIVER-NUN AT AMASSOMA AXIS

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## ABSTRACT

*The concentration levels of the heavy metals Chromium (Cr), Lead (Pb), Nickel (Ni) and Cadmium (Cd) in the sediments of River-nun at Amassoma, axis was investigated in a bid to assess how land based activities adjacent to the river affect its general health and productivity. Sediment samples were collected at different locations along the river catchment representing different land use patterns. Heavy metal characteristics were then measured using standard procedures. Result of the study show that Cr and Cd did not significantly vary ( $P>0.05$ ) between sample stations. There were significant differences ( $P<0.05$ ) in Ni and Pb concentrations between stations. All metal parameters were lower than the World Health Organization (WHO) suggested limit for heavy metals in fresh waters. Except Pb which was negligibly higher than the recommended limit. It can be deduced that human activities in the river catchment will not in the immediate pose a challenge on the river and its ecology*

## 1.0 INTRODUCTION

The River-nun is an extensive body of water that traverses the entire womb of Bayelsa state in the Niger Delta. It is for most part of its of length fresh water with some intrusion of salt water thus producing a brackish presentation. It provides a major source of sustenance and livelihood for people and communities living on the fringes of the river. In fact, the people are so intricately associated with the river that life without it may seem impossible. The river serves as a source of food (fishing), drinking water, means of water for irrigation of plants and source for transportation. In addition, the water serves as a sink for domestic waste and sewage disposal. Sadly, the river is not a limitless sink for waste disposal and therefore the

consequences are evident in distorted water quality, modification of sediment composition and characteristics and the ultimate price of fish kills and destruction of the ecosystem. In Amassoma, the River-nun serves a myriad of purposes for the people. These range from mining of sand, transportation jetties, waste dumping spots, fish landing areas, public toilets and bathing area. All these activities add pollutants into the river such as heavy metals and other organic/inorganic substances. The consequences of pollutants to aquatic life can better be imagined. This study therefore undertakes to measure heavy metal content in the soft sediments of the river at Amassoma axis in other determine the enormity of the pollution threat to the ecosystem.

## 2.0 MATERIALS AND METHODS

### 2.1 Study Area

The study stations in Amassoma are captured in Table 1 below

**Table 1: Station Locations, labels and coordinates**

STATIONS	LOCATION	COORDINATES
A	NDU waterside	4 <sup>0</sup> 58'8.14''N & 6 <sup>0</sup> 6'22.49''E
B	Efeke-Ama waterside	4 <sup>0</sup> 58'4.79''N & 6 <sup>0</sup> 6'11.11E
C	Okoloba-Ama waterside	4 <sup>0</sup> 58'9.87''N & 6 <sup>0</sup> 6'29.11E
D	Okoki-Ama waterside	4 <sup>0</sup> 58'9.95''N & 6 <sup>0</sup> 6'34.7''E



## 2.2 Collection of Samples

Soft sediment samples were collected by using an Eckman grab. This was done in the river close to the shore in areas far removed from debris and plant growth. The grab was dropped into the river and samples taken as soon as the grab makes contact with the sediment. Sediment samples were collected in triplicates in all sampling station.

The extracted sampled are poured into polythene bags from where each sample was examined for the investigated heavy

metals using Atomic Absorption Spectrophotometer model 205 and the results expressed in mg/l of light penetrance.

## 2.3 Statistical Analysis

Means were computed for the entire measured variables. Analysis of variance (ANOVA) was conducted to determine the relatedness between means at the 95% (P= 0.05) confidence limit. Turkey HSD Post Hoc test was used to separate means in order to determine the level of similarities between the various means. SPSS® software version 20.0 aided the data analysis.

## 3.0 RESULT AND DISCUSSION

### 3.1 Result

Table 2 and Figures 1 – 5. show the result of this study.

**Table 2: Mean Heavy metal concentration in River-nun**

Heavy Metals (mg/l)	STATIONS				
	A	B	C	D	WHO
Pb	0.0153 <sup>a</sup> ±0.002*	0.070 <sup>b</sup> ±0.001	0.011 <sup>ab</sup> ±0.0010	0.015 <sup>a</sup> ±0.001	0.01
Cd	0.0013 <sup>a</sup> ±0.00058	-0.0010 <sup>a</sup> ±0.001	0.003 <sup>a</sup> ±0.0010	-0.0077 <sup>b</sup> ±0.0025	0.05
Cr	-0.027 <sup>a</sup> ±0.00153	0.0003 <sup>a</sup> ±0.00058	0.0007 <sup>a</sup> ±0.00153	0.000 <sup>a</sup> ±0.0173	0.02
Ni	0.0011 <sup>a</sup> ±0.00010	0.0009 <sup>ac</sup> ±0.0001	0.0005 <sup>bc</sup> ±0.00012	0.0011 <sup>a</sup> ±0.00012	0.02

\*Mean ± Standard deviation. Same letter superscript along the same row are not significantly different. WHO, 2004

Table 2 shows the means of the heavy metals in the different study stations. It also highlights the separation of means as a result of the ANOVA and Post Hoc (Turkey HSD) test applied to it.

Table 2 shows that the concentrations throughout the study stations followed a pattern which reveal that Pb> Ni> Cd > Cr. Pb has the highest concentration (0.070±0.001mg/l) while Cr has the lowest concentration (-0.027±0.0015mg/l).

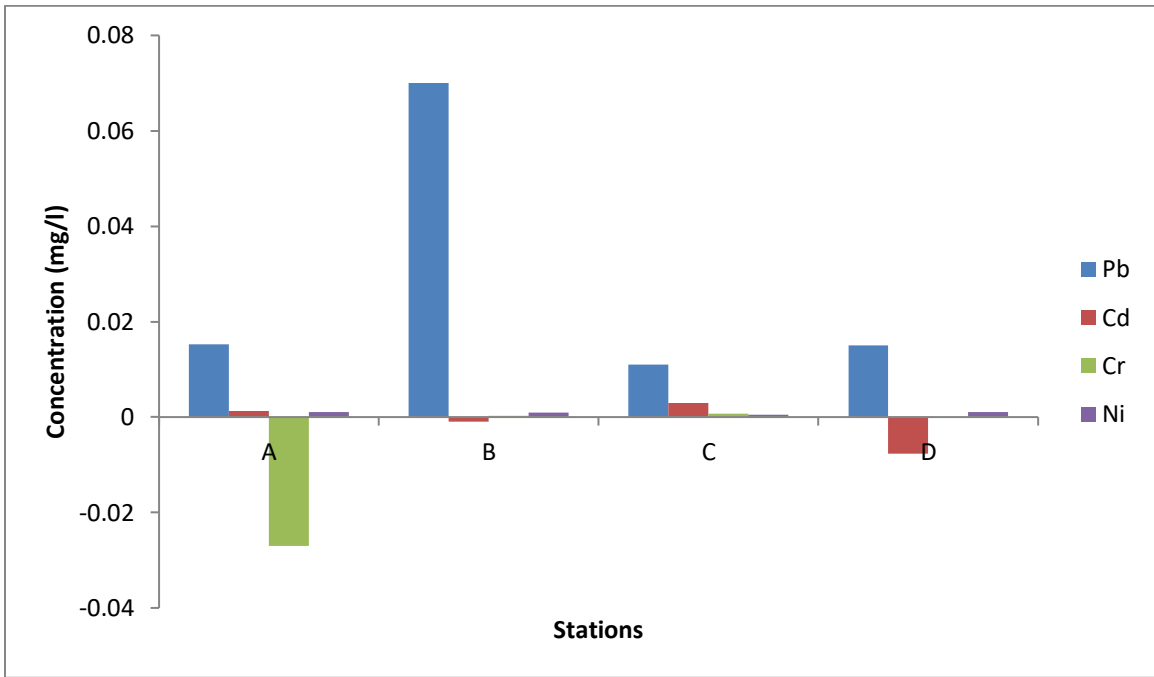
Means are separated based on level of significance by the use of superscripts labeled a, b and c. From Table 2 above, there is no significant difference between stations A (NDU, waterside), D (Okoki-Ama waterside) and C (Okoloba-Ama waterside) in Pb concentration but there is a significant difference (P<0.05)

between stations B (Efeke-Ama waterside) and C (Okoloba-Ama waterside).

There is no significant difference between stations A, B and C except station D in the cadmium (Cd) concentration in the study stations.

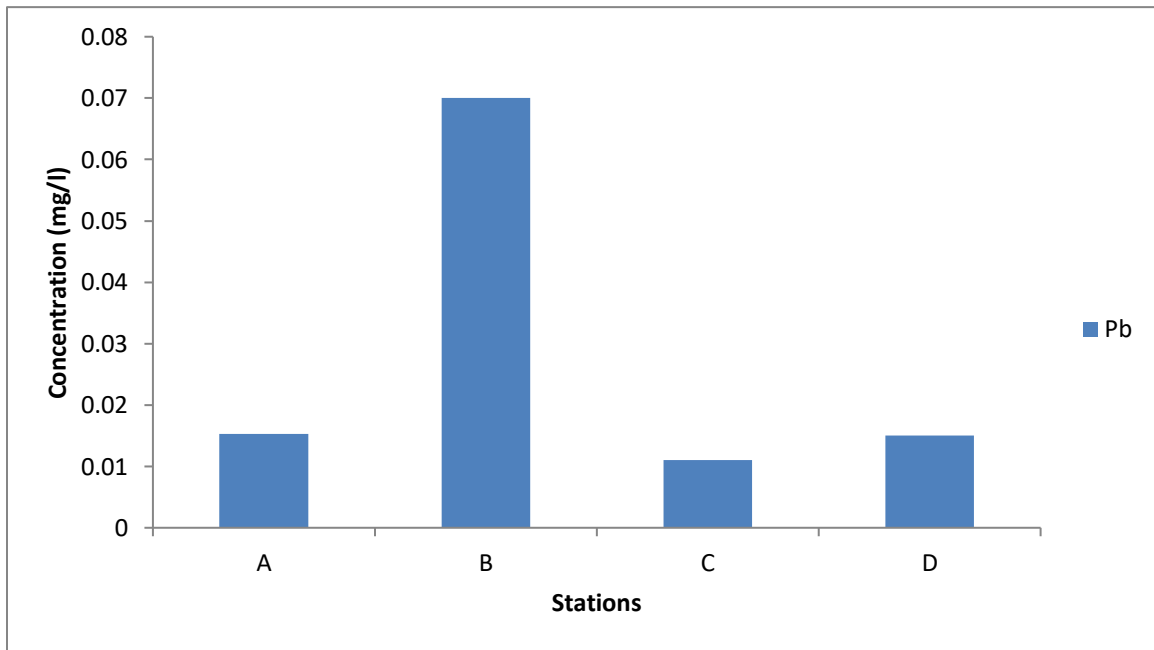
Cr concentration showed no significant difference in all study stations

There is no significant (P>0.05) difference between stations A, D and B but there is a significant difference between stations B and C in Ni concentration.



**Figure 1: Heavy metal levels in sediments of River nun Amassoma axis.**

Figure 1 show that Pb has the highest concentration while Cr has the lowest concentration.



**Figure 2: Levels of Pb in sediments of River nun, Amassoma axis**

Pb concentration was highest in station B, followed by Stations A, D and C

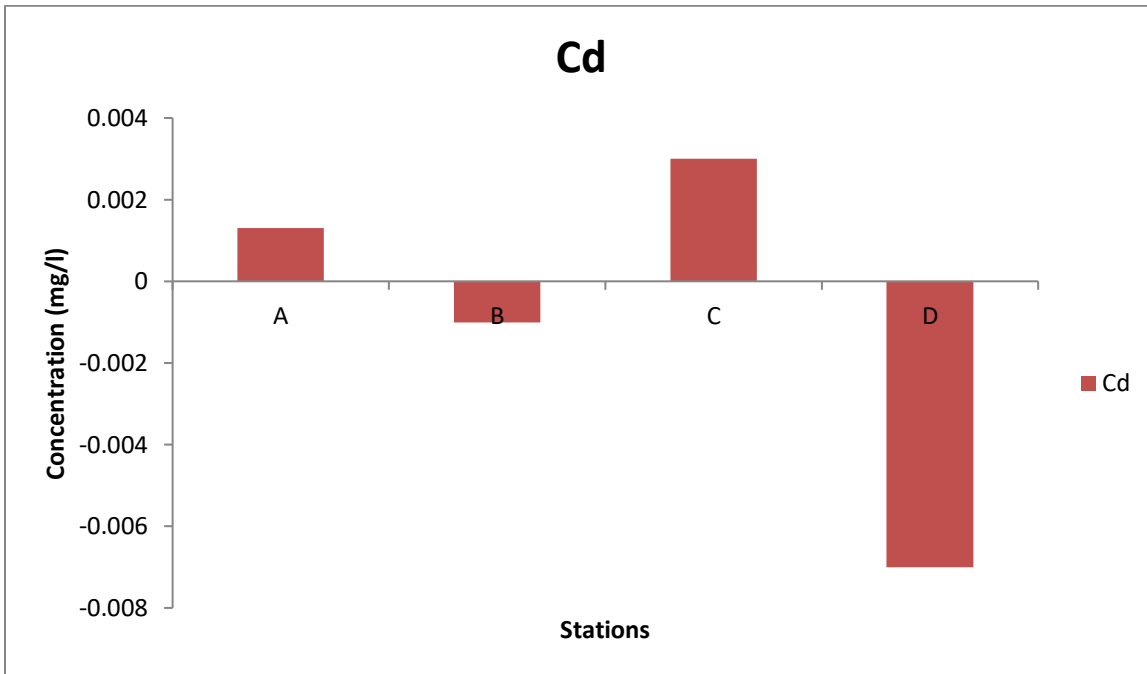


Figure 3: levels of Cd in sediments of River nun, Amassoma axis.

Cd was highest in station C followed by stations A, B and D respectively

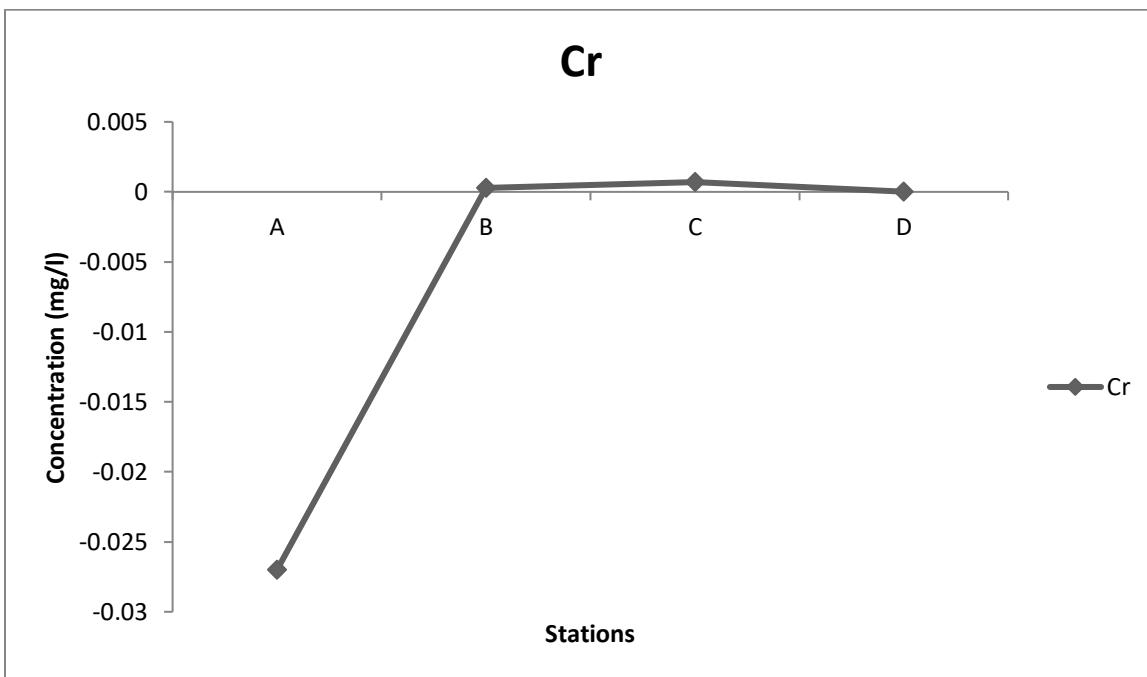


Figure 4: Levels of Cr in sediments of River nun Amassoma, axis.

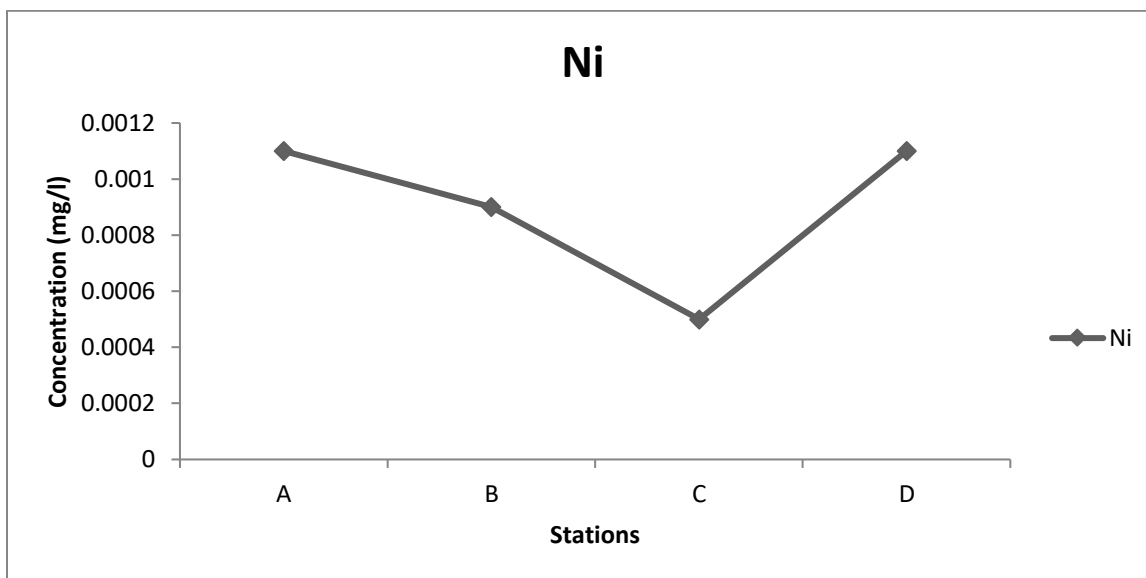


Figure 5: Levels of Ni in sediments of River nun,n, Amassoma axis.

### 3.2 DISCUSSION

In all the metals sampled, Pb show the highest levels in concentration. The high levels in River-nun could be attributed to high amounts of petroleum products used by boats and river crafts traversing the river and for household transported from illicit refineries by sea to Amassoma (Arah, 1985, Lolomari, 1993).

Ni showed the second highest prevalence in the sediments in the study stations. One reason for the appreciable concentration of Ni in the sediments may be as a result of the fact that Ni is widely available to aquatic ecosystem through a variety of anthropogenic sources such as household waste waters and other inputs (Agbozu et al, 2007, Alagoa, 2019).

The presence of Cd in this study is due to the fact that Cd is a Sulphur seeking metal that tends to effectuate in sediments void of adequate oxygen due high waste decomposition in the River-nun (Abel, 1989). Finally, the levels of Cr were particularly low or non-detectable in the study stations. The low concentration of Cr in the sediments can be explained by the fact that Cr is considered as a metal with low transfer-ability between living tissues, the atmosphere and the earth's crust which reduces its availability and toxicity potentials (Abel, 1989).

### 4.0 CONCLUSION

This study assessed some select heavy metal levels in River-nun at Amassoma axis. This was done because soft sediments are very vital to the sustenance of aquatic life and the entire

ecosystem. The result of the investigation reveal that all the select heavy metal levels were below the WHO suggested safe limit for heavy metals except Pb which was slightly above the recommended safe limits. All the heavy metals did not show significant disparity between stations. The outcome of this study imply that the River-nun at Amassoma axis is not under an immediate threat from heavy metal pollution to its fishery and ecosystem.

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