

**USING ACTIVITY-BASED METHOD IN TEACHING THE CONCEPT OF  
SEPARATION TECHNIQUES OF MIXTURE: A MODEL FOR PRIMARY SCHOOL  
TEACHERS**

**BY**

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**ABSTRACT**

*In teaching and learning, there should be a synergy between what to teach (content), who to teach (learner) and how to teach (method). The methodology is what bonded the teaching and learning situation for effective and successful delivery. This paper examined the use of Activity-based method in teaching the concept of separation techniques of mixture, as a model for primary school teachers. The paper considers three activities to be modeled by primary school teachers in teaching basic science and technology in primary schools. It looks critically into the teacher's role as organizer and facilitator of the teaching and learning process, the teaching/learning materials and most importantly the procedure for learners' activities during the teaching and learning process. It also considered the conceptual reviews of activity-based method and mixture for better understanding of the process. It was concluded that activity-based method is one of the best methods for teaching primary science. In the same vein, activity-based method is one of the best strategies to teach the topic "separation techniques of mixture" to primary school pupils; and teachers in this process are advised to be time conscious, and to always be active by going around to support the children during the process. Recommendations were offered on how best will teachers at primary school employ activity-based method in teaching primary science, among which include; teachers should give clear instruction before the commencement of every learning activity; and pupils should be encouraged and supported to work together during teaching and learning activities.*

**Introduction**

Teachers and teaching are as old as mankind as it can be traced to storytelling and learning to use simple tools like stone to make human life easier. Therefore, it can be generalized that everybody at one point or the other is a teacher or a learner, even though this is not prejudicial to the professional connotation of the word "teacher" or modern classroom learning. Teacher is regarded as the organizer, facilitator, driver and coordinator of all teaching and learning activities. Masha in Bello (2003) defines a teacher as a transmitter of knowledge, values skills and desirable attitude of any given society. Given this, Ware cited in Gusau (2005) sees the teacher as a facilitator of learning and corrector of "naïve" science misconceptions students bring into the classroom and helps students construct a scientific understanding of the natural world. In

this regard, a science teacher teaches and also sets the pace for the scientific processes which deals with establishing facts through testing and experimentation. The basic of scientific process that science teachers should be familiar with involves making an observation, forming a hypothesis, making a prediction, conducting an experiment and finally analyzing the results.

However, to teach means to give someone information, to deliver a lesson, particularly in school, to show someone how to do something or to change someone's attitude or perception of something. According to Abdullahi in Lawal (2012), teaching involves stimulating of others to attend, observe, associate, remember and reason. In this regard, to teach means to direct and help someone to think and organize things the way he/she thinks it best suits the situation, and to remember what is learnt as well. Children remember 90% of what they say and do (Esspin-2010). Therefore, the activity-based method is one of the best strategies to teach the topic “separation techniques of mixture” to primary school pupils. Teachers in this process should always be active by going around to support the children to learn. Gbamanja (1991), opined that one primary task of science teachers is to know how to assist the learners to understand a particular scientific phenomenon. Teaching is about reminding or rather helping the learners build on or change their beliefs about a situation, place, or person.

Every society has its norms, values and beliefs. In teaching sciences, societal values, norms and beliefs are either emphasized or changed with concrete evidence. Science is about facts and practical demonstration and evidence about a particular phenomenon. Science embraces every attempt of humans to explore, interpret and manage the natural world (Garuba, Agweda, Abumere & Daneil, 2012). Therefore, through science, the immediate environment can easily be manipulated and interpreted to suit the lives of its inhabitants. Teachers at lower basic education level have an important role to play in supporting the pupils to explore their environment using the activity-based approach to learning.

Conversely, science is about investigation, discovery and facts, it is therefore important to encourage children at lower levels of education to actively be involved in practical sciences through hands-on, or rather activity-based methods of teaching. Activity-based teaching is a strategy focused on the idea that learners ought to be included in activities. Activity-based teaching is a method adopted by a teacher to emphasize his or her technique of teaching through action in which the learners take an interest comprehensively and realize effective learning

practices (Noreen & Rana, 2019). The activity-based method encourages the child to take interest in practical science for effective individual and societal development. In primary science, Activity-based learning can influence children's curiosity in learning science through dynamic contribution. In activity-based methods of instruction, the role of a teacher is that of a facilitator/organizer rather than an authority in knowledge and classroom process. He engages the learners in tasks and makes abstract ideas into concrete ones. Festus cited in Zakari (2019) stressed that the activity-based method is all about learning by doing rather than learning by listening. It can be done in two ways; student-centered instruction where students have the freedom to choose a problem and formulate strategies to solve them; and teacher-centered instruction where the teacher leads the role. The main feature of the activity-based method according to Festus (2013), is learning by doing, thus this method can fulfill the natural urge of a growing child by making the learner more active. Noreen et-al (2019), stressed that learning by doing is very important in successful knowledge because it is proved that the more the senses are inspired, more a person learns and longer he/she retains. Activities bring activeness and smartness among the learners. Based on this premise, there is the need for organizing numerous activities in primary science by the teachers to build up the learner's personalities and agitations for hands-on activities.

This paper therefore, intends to explore the common mixtures around us, how children can be supported to make common mixtures within their locality and the separation techniques of mixtures. This is going to be achieved using activity-based method in teaching the concept of separation techniques of mixture as a model for primary school teachers.

### **Preamble to the Main Activities**

In our everyday activities, we make mixtures, come across mixtures, and sometimes separate mixtures without fully noticing what is going on. These mixtures may come in different forms, colours, smells, and perhaps textures. The following activities will lead us to the identification of common mixtures around us, using local materials to make a mixture in the classrooms and separation techniques of a mixture.

### **Activity I: Identification of Common Mixtures around us**

Primary school science curriculum is spiral in nature; concepts are arranged from simple to complex and from tangible to abstract. The key concepts are presented repeatedly throughout the curriculum. Considering the content of the curriculum, learners should have an idea on compound and mixture as component or types of matter before the task of identifying common mixture around. At this juncture, the teacher can introduce the activity by reminding the learners of their previous knowledge of the mixture. Learners can therefore be put into heterogeneous groups (depending on the size of the classroom) to do the activities together. All the mixture to be provided for identification should be available within the locality of the learners.

**Materials:** Coca-Cola, tea, milk, water, oil, water and oil, sand, sand and water, iron fillings, sand and iron fillings, Gari combined with water, sugar and groundnut, kerosene, salt and sugar and plain A-4 paper for writing. The materials should be labeled A, B, C, D, E, F; or 1,2,3,4, etc.

**Procedure:** To each group, place 3 or 4 containers of the material provided, inform the groups that they are going to do an activity that involves the identification of the materials (mixtures) in the containers provided to them. Suggest to them that in each group there should be a group leader and a recorder. Explain to the groups that; some of these containers have different materials put together (mixed up) while others have only one material in them. The groups should work together to separate these containers i.e., the ones with the same material from those with different materials mixed up together. The recorder of each group should tabulate the findings with two headings as **same or single materials** and **different materials**. These headings should be written on A4 paper for the groups to see. The recorder shall use the alphabet or numbers labeled against each container to tabulate their findings. The teacher should go around and support the groups while doing the activities. All the above points should be clearly explained to the groups by the teacher.

**Discussion:** At this junction, the groups should be asked to present their findings via the recorder which can be market place (display) by the groups for all the class to see. The possible arrangement shall be; water, salt, sugar, groundnut oil, iron fillings, kerosene, Coca-Cola, milk and sand as same materials while those containers of water and oil, sand and water, sand and iron fillings, Gari soak with water, sugar and groundnut, and tea as different materials.

However, the teacher can lead the class discussion by commencing with the container of tea; on the fact that the learners are aware that tea contains water, milk, sugar etc. The teacher can explain that it's also true with Coca-Cola and milk. Milk contains other materials like water, oil, etc. even sand may contain some kind of small stones, sticks, etc. Based on that ground, they belong to the group of different materials.

The teacher will summarize the discussion as follows: Those items or materials grouped under different materials are called mixtures in science. A mixture is defined as a substance which contains two or more constituents that can easily be separated by physical methods (Ababio, 1993). Mixtures constitute multiple components mixed with each other by means of physical combination. Sehgal and Arrinton (2023), defined a mixture as a mere physical mixing of multiple substances without chemical interaction between the constituent substances.

Teacher will summarize the findings as follows: those items or materials grouped under different materials are called mixtures in science Mixtures is defined as substances which contain two or more constituents which can easily be separated by physical methods. There are different types of mixtures which can be summarized as follows:

- i) Mixture of solid and liquid e.g., precipitate
- ii) Mixture of liquid and gas e.g., Carbonated drinks
- iii) Mixture of solid and solid e.g., brass
- iv) Mixture of gas and gas e.g., air. (Sehgal and Arrinton ,2023)

All the above-mentioned categories of mixtures are broadly classified into homogenous and heterogeneous mixtures. Homogeneous mixture is a physical combination of two or more substances that are not evenly mixed; e.g., milk, blood etc. Heterogeneous mixture composes of components that are not uniform or they have localized regions that all have different properties. Therefore, if we look around us; in our schools, homes, materials. Etc. we may come with one form of mixture or the other.

### **Activity II: Using Local Materials to Make a Mixture in the Classrooms**

We come across mixtures every day. Some we make them; some we buy them and some do occur naturally. For the purpose of understanding mixture at primary school levels, there is need to demonstrate how to make our own mixtures using activity-based method.

**Materials:** Groups should be provided with different types of materials like; water, sand, sugar, salt, chalk dust, iron filings, cooking oil, beaker, conical flask or bottle, stirrer, spoon etc.

**Procedure:** Pupils should be asked to work in groups and handle the materials/apparatus provided with care. Quantification/measurement is very important in science therefore pupils should be advised to measure whatever material they are going to use in preparing their mixture.

Each group should be given a beaker or any transparent container, with spoon and stirrer. They should be asked to mix two or three materials of their choice, stir very well and allow the mixture to stay for few minutes and record their observations. Teacher should go round the groups to support them while they are working.

**Discussion:** The group should be asked to report their observations. Possible observation results may include; some of the solute dissolve in the solvent while others do not dissolve or some solids to solid mixture cannot easily be made, some solutions cannot dissolve in the solvents etc. Teacher summarize the points by telling the pupils that every substance has its own solvent, and that there are some substances that can stay together but never be joint or bonded together (refer to the discussion on activity one).

### **Activity III: Separation Techniques of a Mixture**

As mixtures were made in activity II, we can now employ some scientific strategies to separate the various components of the mixtures. For the purpose of this activity, we are going to use the mixtures we have made and even some readymade mixtures which we obtained from the market.

**Materials:** Various samples of mixtures like that of salt and water, water and oil, water and chalk dust, crystal iodine, iron fillings and stones, heating systems, separating funnel, filter paper, funnel, breaker, conical flask, pots etc.

**Procedure:** Divide the class into four heterogeneous groups. Give the first group a mixture of salt and water, 2<sup>nd</sup> group a mixture of sand and water, 3<sup>rd</sup> group, a mixture of chalk dust and water, and 4<sup>th</sup> group a mixture of cooking oil and water. Give the various groups the needed apparatus for the practical Group 1; heating system (stove) a pot or a breaker. Group 2; two empty beakers or cups. Group 3; a conical flask, funnel a stirrer and filter paper. Group 4; a separating funnel. Teacher should go to each group to give clear instruction and possibly

demonstrate to the groups before the commencement of the activity. At the end of the activities ask the groups to record their observations.

**Discussion:** The different groups here will report their observations in plenary and the teacher will record their observations and summarizes as follows:

Group 1: the process involves in the activity is called evaporations which involve the separation of soluble solid from a liquid. Salt is the solid (solute) and water is the liquid (solvent). By applying heat, the water will evaporate and leave the salt in the container.

Group 2: The process is called decantation; it involves the process of separation insoluble solid from a liquid, sand is insoluble solid in a water (which is the liquid).

Group 3; Filtration: This is also another process of separating insoluble solid (which is a little bit lighter) from a liquid. The liquid passes through the filter paper while leaving the solid on the filter paper. The liquid is called the filtrate while the solid is named as the residue. The liquid (filtrate) goes down into the container while the solid (residue) remain on the filter paper.

Group 4: Separating Funnel: This apparatus is use to separate two immiscible liquids like the water and oil used here. The heavier liquid will be down in the funnel while the lighter one will stay on top. As the separating funnel tap looks downward, the heavy liquid (water), will go down first while leaving the oil. There is a stop cock which act like a tap that help in making the separation move slowly and smoothly.

### Summary

Here, teacher will explain more types of separation techniques and the apparatus use possibly with examples of mixtures involved and tabulate as follows:

Techniques	What to separate (Mixtures)
Sieving	Solids of different sizes
Sublimation	Solids which sublime from other solid
Decantation, filtration, centrifugation	Insoluble solid from a liquid
Evaporation, crystallization, fractional crystallization, precipitations	Soluble solid from a solution
Distillation	Solvent from its solution

Fractional distillation	Miscible liquids
Using separating funnel	Immiscible liquids
Chromatography	Solutes from a solution

Source: Ababio (1993)

### Conclusion

Science is all about facts and the reality of the situation in question. If children are allowed to do things and discover facts by themselves, certainly they will grow up to like and appreciate the scientific process. At the primary school level learning, can best be achieved by putting the children at the centre of learning (child-centered approach). For teaching to be more effective, it is very important to consider the best strategies in which children learn best. Therefore, the activity-based method is one of the best strategies to teach the topic “separation techniques of mixture” to primary school pupils. Teachers in this process should always be active by going around to support the children to learn. If this topic is taught very well, children will come to appreciate that we live in mixtures and that mixtures can be made or separated in the course of our lives.

### Recommendations

The paper recommends as follows:

1. Science teachers should use activity-based method in teaching primary science.
2. Teachers should give clear instruction before the commencement of every learning activity.
3. Pupils should be encouraged and supported to work together during teaching and learning activities.
4. Teachers should use instructional resources in teaching and learning of primary science.

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## INFLUENCE OF EDUCATIONAL LEVEL ON COMPLIANCE WITH ROAD TRAFFIC SIGNS AMONG TRICYCLE RIDERS IN MAIDUGURI METROPOLIS, BORNO STATE, NIGERIA

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### ABSTRACT

*This study determined influence of level of Education on compliance to road traffic signs and regulations state based on tricycle riders in Maiduguri, Borno state. One research question was answered and one hypothesis was tested. The study was based on information motivation behavioral skill theory (IMB). The IMB theory was founded by Fisher and Fisher in 1992. A literature was reviewed on education and compliance to road traffic signs and regulations. Descriptive study design of cross-sectional survey were used for the study. The population of the study comprised of three Tricycle Riders Associations who are registered with Borno State transport council totaling 1,300. Proportionate quota sampling was employed to draw a sample of 300 Riders. Data collected for the study were analyzed using frequency and percentage. Inferential statistics of chi-square was used to test the null hypothesis, level of significance at 0.05. The results of the study indicated that there was no significant difference in responses of compliance to road traffic signs and regulations among tricycle riders in Maiduguri metropolis based on the level of Education.*

**Keywords:** Education; Road Traffic Signs; Compliance; Tricycle Riders

### Introduction

Internationally deaths and injuries resulting from road traffic crashes are key growing public health problem. Road crashes kill about 1.3 million people worldwide every year and severely injured an estimated 50 million (Mukhopadhyay, 2017). Out of ten lives lost in road traffic crashes, nine are lost in low and middle income countries. Sadly the number of road traffic

deaths is on the rise again even in some countries with remarkable road safety improvements. In Africa road traffic crashes is a growing phenomenon, resulting in close to 1000 deaths, tens of thousands of injuries and enormous amount of economic losses every day (Godwin Tunde, Adekunle Taiwo, & Gafar Matanmi, 2012). The losses caused in Africa are, proportionate to the level of motorization and road network density, unless appropriate comprehensive and effective actions are taken timely. The exacerbating road crashes indicates that the disaster will rapidly increase and have unbearable impacts since it can lead to loss of life and valuable properties. Moreover, the solution at a later date will be more expensive (Makhanu, 2015).

Road traffic crash is second to Boko Haram insurgency, which is the highest source of violent death in Nigeria. In this context, Nigeria has been ranked the second-highest in term of road crashes among 193 countries of the United Nations. Adeloye et al., (2016) indicate that one in every four road crash deaths in Africa occurs in Nigeria. Nevertheless, government has put in place a number of policies and strategies to deal with the increasing number of road traffic crashers.

Recently Nigeria has experience an increase in the number vehicles used for commercial transportation, among which is a three wheeler motorcycle called tricycle. An essential volume of the tricycle is used for commercial transportation in Nigerians cities and is responsible for daily trips, more especially among the low income earners. The tricycle riders have been observed to engage themselves in act of recklessness and disobedience to road traffic signs and regulations (Vanguard newspaper, 2017).

### **Purpose of the Study**

The purpose of this study was to determine the influence of level of Education on compliance to road traffic signs and regulations state based on tricycle riders in Maiduguri, Borno state.

### **Research Question**

1. What is the influence of level of Education on compliance to road traffic signs and regulations state based on tricycle riders in Maiduguri, Borno state?

### Hypothesis

**H0<sub>1</sub>:** There is no significant influence of level of Education on compliance to road traffic signs and regulations state based on tricycle riders in Maiduguri, Borno state.

### Methodology

The descriptive research design was used for this study. The population of study was (1,300) comprising the three tricycle riders Association who are registered with Borno State transport council. These Associations operate within the boundaries of Maiduguri Metropolis. A sample of 300 was selected for the study. Proportionate sampling was employed as sampling technique. The research instrument for the study is self-adopted questionnaire on compliance with Road traffic signs and regulations among Tricycle Riders. The questionnaire consisted three sections A, B and C. Section A, is concerned with the socio-demographic variables while section B, collect response on compliance with road traffic signs and regulations. Data collected for the study was analyzed using frequency count and percentage. Inferential statistic of chi square was used to test the null hypothesis at 0.05 level of significance.

### Results

**Table 1: Demographic Characteristics of the Respondents**

Variables	Variable options	Frequency	Percentage
<b>Age</b>	16-24 years	173	57.7 %
	25-34 years	100	33.3%
	35-44 years	10	3.3%
	45-54 years	17	5.7%
	total	300	100%
<b>Level of Education</b>	Never attended school	91	30.3%
	Primary school	135	57.7%
	Secondary school	42	14.0%
	Tertiary education	23	7.7%
	Vocational education	9	3.0%
	total	300	100%
<b>Daily Income</b>	₦4000-5000	101	33.7%
	>₦5000	199	66.0%
		300	100%
<b>Marital Status</b>	Single	165	55.0%
	Married	115	38.3%
	Divorced	20	6.7%
	Total	300	100%

Table 1 contains demographic information about the respondents .item 1 shows that 173 (57.7%) respondents were within the range of 16-24 years. 100 (33.3% ) were within the range of 25-34 years. 10(3.3%) respondents were within the range of 35-44 years. 17 (5.7%) respondents were within the range of 45-54 years.

Item 2 indicates that 91(30.3%) respondents had never attended school, 135(45.0%) had primary school living certificate; 42(14.0%) had secondary school certificate; 23(7.7%) had attended tertiary education while 9(3.0%) had vocational educational training.

Item 3 shows that 101(33.7%) respondents make income of N4000-5000 daily while 199(66.0%) make income of N5000 and above daily.

Item 4 reveal that 165(55.0%) respondents were singles, 115(38.3%) were married and 20(6.7%) were divorced.

**Results**

**Hypothesis 1:** There is no significant difference in responses of compliance to road traffic signs and regulations among tricycle riders in Maiduguri metropolis by level of Education.

**Table 2:** Summary of Chi-Square, Analysis of responses of influence of level of Education on compliance to road traffic signs and regulations among riders.

Level of Education	Response to Compliance			Total	X <sup>2</sup>	df	p-value
	No	Sometimes	Yes				
Never attended school	10(11.0%)	69 (75.8%)	12(13.2%)	91(100%)	2.411 <sup>a</sup>	8	.966
Primary school	10 (7.4%)	107(79.3%)	18 (13.3%)	135 (100)			
Secondary school	3(7.1%)	34(81.0%)	5(11.9%)	42(100%)			
Tertiary education	2(8.7%)	19(82.6%)	2(8.7%)	23(100%)			
Vocational education	0(0.0)	8(88.9%)	1(11.1%)	9(100%)			
Total	25(100%)	237(79.0%)	38(12.7%)	300(100%)			

Table 2 shows Summary of Chi-Square, Analysis of responses of influence of level of Education on compliance to road traffic signs and regulations state based on tricycle riders in Maiduguri Borno state. The results indicate that, the null hypothesis is accepted ( $P < 0.05$ ) this therefore explains that there was no significant influence of level of Education on compliance to road traffic signs and regulations state based on tricycle riders in Maiduguri Borno state.

### **Discussion of Results**

The survey, established no statistically significant connection between compliance to road traffic signs and regulations among tricycle riders in Maiduguri metropolis based on the level of Education. In agreement with the finding, Akpan, Ph, Senam, Ph, & Elijah (2015) indicated that those with higher educational background do not necessarily understand road signs more than the less educated. In some instances, the less educated interpreted the signs as much as those with higher educational attainment. Sometimes, the former had it better than the latter. This means that higher education status does not translate into identifying, interpreting and obedience to road signs. To understand road traffic signs may demand a sensible effort, just as complying with the demands or meanings of those signs. A highly educated user of the road who is arrogant may probably contemplate obeying the road signs. This denotes that comply with road signs is a matter of positive approach towards the regulations in general and safety on the road in particular.

### **Conclusion**

It was concluded that there was no significant connection between compliance to road traffic signs and regulations among tricycle riders in Maiduguri metropolis based on the level of Education. The level of Education of a tricycle riders in Maiduguri metropolis is not a reason for compliance to road traffic signs and regulations

### **Recommendations**

Based on the findings from this study, the following recommendations were made;

1. The road traffic regulators should mobilized all tricycle riders on the importance of compliance to road traffic signs and regulations regardless of their level of education

2. The authorities should make sure that all road traffic signs and regulations violators are punished according to law of land

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## APPRAISAL OF EXTENSION SERVICES OF FARMER EDUCATION PROGRAMME ON MANAGING ARID ZONE AGRICULTURAL CHALLENGES IN BADE EMIRATE, YOBE STATE, NIGERIA

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### ABSTRACT

*The study appraised extension services of farmer education programme on managing arid zone agricultural challenges in Bade Emirate, Yobe state. The objectives of the study are to: identify the forms of extension services rendered to farmers through farmer education programme in Bade Emirate, Yobe state, determine agriculture related challenges faced by farmers in Bade Emirate, Yobe state and examine the impact of extension supports service through farmer education programme on addressing agricultural challenges faced by farmer participants in Bade Emirate, Yobe state. The study adopted survey research design in order to appraise the impact of extension services of farmer education programme on managing arid zone agricultural challenge in Bade Emirate, Yobe state. The target population of the study constituted of 400 registered farmer participants that participated in extension services of farmer education programme by ADP/NEAZDP project in Bade Emirate, Yobe state. The sample size of study was 200. This comprises 200 small holder farmers who participated in the extension services of ADP/NEAZDP projects in Bade Emirate, Yobe state. One instrument was used to collect the data for the study which was Farmer Participants Questionnaire (FPQ). Descriptive and Inferential Statistics using simple counts and chi square were used to determine the differences between independent and dependent variables. The findings of the study indicated effect of the arid zone was found to be severe, impact of extension services was seen, and forms extension services were provided. Based on the findings, it is recommended that farmer literacy programme should be incorporated in the NEAZDP/ADP farmer education programme in order to modify process of extension services, environmental protection sensitization campaign. Finally government and relevant stake holder should increase the size of farmer's participation in extension project in Bade Emirate Yobe state.*

**Key Words:** *Extension Services, Farmer Education Programme and Arid Zone Agricultural Challenges.*

### Introduction

Extension service is the most suitable vehicle for the transfer of desirable change in agriculture. The role of extension agency in extension service for the development of agriculture throughout the world is not in doubt. It has remained one of the prime movers in the development of

agriculture and invariably in the rural development process. Extension services entail programmes, projects and recommendations, which the extension staff make available to their clientele through the use of farmer education process (Fadiji, 2011).

Extension service bridges the gap that exist between research and practice (Fadiji, 2011). He further contended that agricultural extension encompasses all aspects of agriculture. It includes the provision of timely information, the linking of farmers with sources of farming inputs and credit facilities and most importantly, the provision of education services to farmers. He further explained that, modern agricultural extension work in Nigeria today, covers a wide spectrum of services which include, improvement in production marketing, storage, processing, and harvesting of crops as well as fishing farming, agro-forestry, input supply and distribution, man power development, home economics/women in agriculture, irrigation and management, farm mechanization, erosion control, livestock management, human resources and development, administration and management, programming, youth development programme, planning and evaluation among other.

A nationwide study by Nation Environmental Study (2011) revealed that majority of related extension services of non-governmental organizations (NGOs) in Nigeria are on agricultural production development especially, in the rain fed agricultural zones, with which the higher record of annual food shortage as a result of increasing drought, desert encroachment, low rainfall among others. Similarly, according to North East Arid Zone Development Programme (NEAZDP) many northern states of Nigeria including the then Borno State suffered the great drought between 1968 and 1973 that affected food supply which subsequently promoted the formation of many initiatives to surmount the threat .

In Bade Emirate, the two main Extension Agencies are North East Arid zone Development Programme (NEAZDP) and Agricultural Development Programme (ADP). The two Agencies since long ago have been working alongside to provide Agricultural extension services through farmer education programme. However, the farmer education programme targeted the critical components of Agricultural extension services, covering different forms of extension services; farm operation extension services in relation to tillage ridge harrowing, planting, harvesting, storage, soil nutrient, management, crop pest control management as well as extension farm implement, as well as technical advices and information in relation to advisory, motivation and

enlightment services (NEAZDP 2014). These have gone a long way with nature of low seasonal agricultural harvests and production to small holder farmers created by the nature of semi-arid zone climate of the area.

Bade Emirate is one of the Emirates in Yobe state located in the Sahara region of Nigeria, experiencing strong yearly variation in climate. In spite of the semi-arid nature of the region, agriculture is the dominant occupation of the people in the area. Inhabitants of this area engage in Crops production, animals rearing, fishing, gardens and livestock. The semi-arid nature of the environment creates some challenges such as low annual rainfall, excessive heat, temperature, humidity, soil degradation, and reduction in animal fodder desert encroachment flooding, drought, ecological disruption, among others. These challenges need special interventions from agricultural agencies, if farmers are to remain in business to continue producing food and animals for the teeming population in the zone.

Extension Services are the key supports services provided by the agricultural organizations in Bade Emirate, like Yobe State Agricultural Development Programme (ADP) and North East Arid Zone Development Programme (NEAZDP, 2014).

Now, does the extension services and supports provided through farmer education programme by Agricultural Development Programme (ADP) and North East Arid Zone Development Programme (NEAZDP) has improved challenges. But there is no documentary evidence to show that. It is against this back drop this study sought to appraise extension services provided on managing agricultural challenges in Bade Emirate, Yobe State.

**Objectives of the Study:**

1. To identify the different forms of extension services rendered to farmer participants through farmer education programme by ADP/NEAZDP in Bade Emirate, Yobe state.
2. To determine the agricultural arid zone related challenges that farmers face in the Bade Emirate, Yobe state?
3. To examine the impact of extension support services provided through farmer education programme on addressing agricultural challenges faced by farmer participants in Bade Emirate, Yobe state.

## **Research Questions**

1. What are the different forms of extension services rendered to farmer participants through farmer education programme by ADP/NEAZDP in Bade Emirate, Yobe state?
2. What are the agricultural arid zone related challenges that farmers face in the Bade Emirate, Yobe state?
3. What are the impact of extension support services provided through farmer education programme on addressing agricultural challenges faced by farmer participants in Bade Emirate, Yobe state?

## **Methodology**

The study adopted descriptive survey research design which was used for the study. It is survey questionnaire which was used to collect set of opinions of the respondents for the study. The choice of the descriptive survey design for the present study was based on fact that the evidences of study are generated from descriptive opinion of self-case report and it is suitable and relevant method for the Descriptive study (Babbie, 1990).

*Population:* The population of the study comprised of (400) registered farmer participants who participated in the Agricultural Development Programme (ADP) and North East Arid zone Development Programme (NEAZDP) projects in Bade Emirate, Yobe state.

*Sample Size:* The sample size of 200 was drawn from population using Taron Yamane formula. The selection was done from (10) sampled groups for the study. Proportionate stratified random sample technique for the farmer participant was used for (200) Farmer Participants in (10) communities. Here (20) Farmer Participants were selected from each of the ten (10) communities. The selection of the Farmer Participant was done by fraction of (10%) of (200) sample size of Farmer Participant. This is to give all (20) Farmer Participants from each (10) communities equal chance of being selected.

*Instrument:* The researcher developed structured questionnaire which is named Farmer Participant Questionnaire (FPQ). The ordinal scale was used for identification and selection of variables and as well ranking and multiple choice were used for scoring the data.

*Validity:* The validation of the instruments was done through content and face validity. The researcher gave three sets of instruments to three experts in the Yobe State University and consequently all corrections were effected.

*Reliability:* The reliability of the research instrument was established through the use of test and re-test method. The five (5) sampled representatives were selected outside the study area, and the selection was done two times, the first week and after two weeks later. The analysis was done using PPMC and result showed a measure of stability at 0.870. It is based on this result that the reliability of the instrument was considered suitable; hence the instruments was administered for the study.

*Data Analysis:* Descriptive and Inferential Statistics using frequency count and simple percentage in the first table. Chi square was used for second and last table to examine the relationship between independent and dependent variables.

*Results:* The table 1 results were presented from 200 sampled representatives. The research question was answered using frequency count simple and simple percentage.

What are the different forms of extension services rendered to farmer participants through farmer education programme by ADP/NEAZDP in Bade Emirate, Yobe state?

<i>Items</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Specific area of Extension Services rendered</i>		
Motivation Services	40	20%
Organization Services	30	15%
Enlightment Services	25	12.5%
Advisory Services	105	52.5%
Education services	32	16%
<i>Farm operation services rendered</i>		
Tillage, ridges and harrowing	83	41.5%
Planting, harvesting and harrowing	61	30.5%
Soil nutrient management	54	27%
Crop pest control and management	35	17.5%
Product price and sale	20	10%

**Source: Survey 2014**

Table 1 shows that 20% of the respondents received the extension service through motivation. While 15% organization service, 12.5% enlightenment service, 52.5% advisory service, and lastly, 16% of the respondents received the extension service through education. This suggests that lower level of education amongst the farmers exist in the study. The result in the table 1 further

reveals 41.5% of the respondents received farm operation service through tillage, ridge and harrowing. The others 30.5% planting, harvest and storage, 27% soil nutrients management, 17.5 crop pest control and management and 10% of the respondents received the farm operation service through product pricing and sale. This shows that, bulk of extension farm operation services were received through tillage, ridge and harrowing

The table 2 results were presented from 200 sampled representatives. The research question was answered using chi square.

What are the agricultural arid zone related challenges that farmers face in the Bade Emirate, Yobe state?

<i>Variables</i>	<i>Tabulated x<sup>2</sup></i>	<i>Calculated x<sup>2</sup></i>	<i>DF</i>	<i>Level of significance</i>	<i>Decision</i>	<i>Contingency coefficient</i>
Extent of arid zone challenges severity (Aridity)	1.782	19.4	12	0.05	Significant	0.63
Extent of climate variation (nature of climate change)	1.746	11.2	16	0.05	Significant	0.50
Extent of seasonal low rainfall (low rainfall)	1.860	17.6	8	0.05	Significant	0.95
Arid zone related challenges (high temperature, drought, erosion, flooding)	1.746	33.7	16	0.05	Significant	0.71
Level of ecological threat (human and natural ecological disruptions)	1.746	23.4	16	0.05	Significant	0.82

**Source: Survey 2024**

Table 2 shows the determinants of arid zone agriculture related challenges within Bade Emirate, Yobe state. The results of the Chi-square test table 2 revealed that five variables were found to be significant in determining arid zone agriculture related challenges in Bade Emirate, Yobe state. These variables include (Aridity) extent of arid zone challenges severity, (nature of climate change) level of climate variation, (low rainfall) extent of seasonal low rainfall, (Other arid zone related challenge) such as severity in drought flood high temperature as well as human and natural ecological disruptions. Furthermore, the Chi-square value was converted to contingency coefficient (C) so as to find out the extent to which each variable determines agriculture related challenges faced by farmers in Bade Emirate, Yobe state. The result of the analysis revealed that contingency coefficient of severity in was positive at 0.63 level. This implies that farmers experience high severity of aridity in the arid zone. Climate change had also positive at 0.5 level. This indicates climate change increase farmer’s agricultural challenge in the area. Seasonal low rainfall had positive at 0.95 level. This indicate low rainfall affect more farmers ability in

agricultural production with result in poor farmer productivity and efficiency in agriculture. Other arid zone challenges such as (high temperature drought erosion flood) were positive in contingency coefficient at 0.71 level. This implies the more reductions in farmer’s agricultural productions as a result of the arid zone challenge. The coefficient of human ecological disruptions has positive result at 0.82 level. This indicates human and natural ecological disruptions decrease the farmer’s productivity and efficiency in agricultural occupations. The result of all five variables indicating positive result and significant in the coefficient at 5% level determine the impact of the arid zone challenge on farmers ability to produce more food for teaming populations in the area.

The table 3 results were presented from 200 sampled representatives. The research question was answered using chi square.

What are the impact of extension support services provided through farmer education programme on addressing agricultural challenges faced by farmer participants in Bade Emirate, Yobe state?

<i>Variables</i>	<i>Tabulated x<sup>2</sup></i>	<i>Calculated x<sup>2</sup></i>	<i>DF</i>	<i>Level of significance</i>	<i>Decision</i>	<i>Contingency coefficient</i>
Level of extension enlightenment to make farmers participate ( Farmer Extension participation)	1.860	8.5	8	0.05	Significant	0.49
Level of adequacy and effectiveness of extension support services ( Support Services efficiency)	1.782	10.8	12	0.05	Significant	0.38
Viability extent of extension services (Service viability)	1.782	2.4	12	0.05	Insignificant	0.14
Extent of extension support services to sustain involvement in farming. ( farmer involvement)	1.725	7.83	20	0.05	Insignificant	0.12
Level of farmer extension motivation.(farmer extension motivations)	1.725	7.83	20	0.05	Significant	0.37
Level of improved family living condition.(farmer improved standard of living)	1.746	7.41	16	0.05	Significant	0.46

**Source: Survey 2024**

Table 3 shows the influence of extension support services on addressing arid zone agricultural challenges faced by farmers in Bade Emirate, Yobe state. The result of the Chi-square test table 3 revealed that six variables were found to be significant in examining the influences of extension

support services on addressing agricultural challenges in Bade Emirate, Yobe state. These variables include (Farmer Extension Participation) level of extension support services to make farmers participate, (Extension Support Services Efficiency) level of adequacy and effectiveness of extension support services, (Farmer Extension Involvement) extent of support services to sustain involvement of farmers in extension works (Farmer Extension Motivations) level of extension incentives to make corporate to new innovations (Farmer Improved Living Standard) level of farmers family living standard. Furthermore, the Chi-square value was converted to a contingency (C ) so as to find out the extent to which each variable is significant on addressing agricultural challenges faced by farmers within Bade Emirate, Yobe state. The result of the analysis revealed that contingency coefficient of Farmer Extension Participation was found positively weak at 0.49 level. This is indicating that farmers averagely participate in extension support services projects to reap on benefit of the supports and improve the situations of agricultural challenges they faced. The coefficient of extension support services efficiency was found also positively weak at 0.38 level, indicating mere improvement in farmer's productivity and efficiency of producing adequate food items for teaming population in the area. The coefficient of extension support service viability was found insignificant at 0.14 level. Indicating an insignificant farmer's productivity because of existing challenges. The coefficient of farmer extension involvement was found insignificant at 0.12 level showing that more farmers are not involved in the extension agriculture to produce more food for the teaming population in the area. The coefficient of the Farmer Extension Motivation was found positively weak at 0.37 level indicating farmers lightly received motivation from the extension service projects which improve farmer's productivity and efficiency in productions. The coefficient of improved family living standard was found nearly positive at 0.46 level. This implies more members of the family get their life quality improved as a result of extension support services given to small scale farmers in Bade Emirate.

### **Discussion of the Findings**

The study appraised extension services of farmer education programme on managing arid zone agricultural challenges in Bade Emirate, Yobe state. The study revealed that Advisory services, Sensitizing on Planting harvesting and storage, Sensitizing on Crop pest control management are all significant. This is in agreement with study of Umar, Phoa and Khaligue (2012) which their

findings revealed that advisory services has significant impact on agricultural produces. Similarly, it is in agreement with study of Anaeto, Aslabaka, Nnadi and Thomas (2012) which their findings revealed that Sensitization advisory services has significant impact on agricultural produces.

The study revealed that all the five variables in agricultural related challenges under the analysis are agricultural challenges in Bade Emirate, Yobe state. These variables include (Aridity) extent of arid zone challenges severity, (nature of climate change) level of climate variation, (low rainfall) extent of seasonal low rainfall, (Other arid zone related challenge) such as severity in drought flood high temperature as well as human and natural ecological disruptions. These five agricultural challenges are in agreement with NAPCD, (2014) as cited in (Mohammad, 2014). These are low rainfall, climate change desertification, flooding, drought are severe agricultural challenges in the arid zone areas. UNESCO, (2010) as cited again in Mohammed,(2014) climate change refers to an increase or decrease in average global temperature, rainfall, humidity these are caused primarily by increase in smoking, greenhouse gases such as carbon dioxide ( CO<sup>2</sup>). He further noted that Nigeria is experiencing adverse climatic change condition with negative impact on the welfare of millions of people from the arid zone areas. With persistent drought, flooding, pest infection, erosion, sand dune with soil fertility, off season rain reduction in river flowing in arid zone areas, the prospect of agricultural productions is low. He highlighted that with climate change on place the arid area of Nigeria is becoming drier while southern part is getting wetter. As part of effort to ensure increase in farmer productivity efficiency in the business, an agricultural extension service projects were introduced in the arid zone area of Nigeria.

The study revealed that the Adequacy, viability and suitability to extension services was positively weak to agricultural produces and by extension increase farmers s' income, increase food security and improve living standard. This is in consistent with Adesina, (2015) Farmers Perception and Adoption of new Agricultural Technology increase improvement moderately on adequacy, viability and suitability to extension services. The study revealed that the Participation was found moderately significant on influencing agricultural challenges. This is in line with Anjanwu, (2009) that participation is an important aspect of empowering of people as mean to allow the good control over decision and increase awareness. This justifies that the finding of

farmer extension participation empower moderately farmers in the course of addressing impending agricultural challenge in Bade Emirate. The study revealed that the variables of Efficiency of extension service was significantly moderate to improve arid zone farming which were available (timely delivery follow up action usefulness of information). This is affirming the finding of Andrea, (2013) on the study of efficiency of extension service delivery promoted agricultural challenges. The finding of Extension Service Viability was found moderately significant factor indicating extension productivity to farmers that moderately help to address agricultural challenge. This is in agreement with the finding of Iwala, (2014) on study of viability and sustainability of Fadama III Small Scheme. Extension viability and sustainability this returns moderately significant in this study. It points out longer stay of extension support services project and its viability promoted productivity and efficiency of farmers and thereby decreases the number of agricultural challenge in Bade Emirate. This is also in agreement with the findings of Iwala, (2014) on viability and sustainability of Fadama III Small Scheme. The finding indicates moderately positive and significant in extension service motivation of arousing interest of using extension farming methods and techniques. This is an indication of moderate improvement in adopting motivational materials and as a result of the increase in farmer productivity and efficiency. Affirming that agricultural challenges are contained. This is in agreement with finding of NEAZDP, (2014) the finding shows moderate significant level of farmers improved living condition and improved the quality of life for the small holder farmers in Bade Emirate. This is in agreement with the objectives of NEAZDP, (2014).

## **Conclusion**

Agricultural extension services are meant to make agriculture more rewarding and viable, especially, in the agriculture most challenging areas. The extension services are intended to increase in farmer productivity, efficiency and farm out. In the areas such as northern Nigeria with adverse effect of climate variation, it is on this ground that government of Nigeria in partnership with development agencies such as North East Arid Zone Development Programme and Agricultural Development Programme (NEAZDP/ADP) in Yobe has moderately promoted research and development on arid zone extension agriculture, targeting Small scale farmers to increase productivity, efficiency and outputs in Yobe State and Bade Emirate in particular. The participation among small scale farmers in Bade Emirate has moderately promoted socio

economic wellbeing of the farmers through diversification of source of income and food security. The key inference from these findings is that agricultural extension services make moderate significant results on addressing arid zone agricultural challenges, and thereby increase farmer's productivity and efficiency among Extension Farmer Participants in Bade Emirate, Yobe state.

### **Recommendations**

The North East Arid zone Development Programme (NEAZDP) and Agricultural Development Programme (ADP) should therefore, incorporate literacy skill into their farmer education services and provide farmers with ability of reading, writing and numeracy so as to promote and facilitate effective agricultural marketing processes and operation among farmers and also between marketers and farmers in Bade Emirate.

The North East Arid Zone Development Programme (NEAZDP) and Agricultural Development Programme (ADP) should embark on farmer environmental protection campaign programme. This is to enable farmers avoid any form of environmental flood and destruction to protect plant and animal in Bade Emirate.

The moderate significant impact of North East Arid Zone Development programme (NEAZDP) and Agricultural Development Programme (ADP) agricultural extension support services on the family living standard of small scale farmers indicate the needs for government and relevant stake holders to increase the size of Farmer Participants in extension service projects so as to expand agricultural extension production in Bade Emirate.

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**NEEDS ANALYSIS OF TEACHING ENGLISH FOR ACADEMIC PURPOSES IN GSE  
COURSE FOR PRODUCTIVITY IN COLLEGE OF EDUCATION AND LEGAL  
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**ABSTRACT**

*This study investigated needs analysis of teaching English for Academic purposes in college of Education and Legal Studies Nguru Yobe state, Nigeria. The study assessed relevance of the objectives of the course with the communication needs of the learners in Academic context in used, pedagogical strategies and evaluation strategies in used. Three research questions and three corresponding null hypotheses were raised respectively. Descriptive survey design was used in the study. Where 360 NCE students and English lecturers were purposively sampled out of the 2261 total population. Instruments used for data collection were questionnaire, observational checklist and conferencing technique. The data were analyzed using both quantitative and qualitative method of analyses. Quantitatively, mean and standard deviation were used to answer the research questions and Pearson product moment correlation coefficient (PPMC) was used to test the null hypotheses. Open ended section of the questionnaire and the students' opinion obtained from the conference were analyzed using discussion method. Expository composition was used in explaining the opinion. The findings revealed that there is no significant relationship between the objectives, pedagogical strategies and the evaluation strategies used in teaching EAP with the needs of the students. The study recommends for the review of the objectives, pedagogical strategies and Evaluation techniques used in order to harness the EAP course with the learner's academic context needs.*

**Key Words:** *needs analysis, specific needs, academic needs, proficiency, knowledge objectives, register, discourse, genre, learning context*

## **Introduction**

Effective communication is very essential component of teaching. Barriers to such will unavoidably hinders attainments of the teaching objectives. These according to Cheng & Ellis (2014) include empathetic listening and inadequate analysis of purpose, audience and context. To achieve this it's very worthwhile for students across academic fields to be competent in the use of the language in the context of their situation.

English for Academic Purposes (EAP) emerged from English for Specific purposes (ESP) courses in 1970s. The objectives and content of the courses are determined by the needs of the learners. ESP were developed for scientists and engineers working in the rapidly developing oil industry in North Africa and Middle East. Early ESP courses were post experience courses for professionals that studied their subjects in L1 context. They are trained to use the courses to relocate the knowledge into English medium context. EAP was later developed as pre experience course for undergraduates to be taught language skills or study skills in the context of their course of study.

Consequently, the EAP is adopted for pre degrees, degrees and post degrees in educational institutions in order to train the learners to study, teach and conduct research in the language (Jibril, 2021). Since the English language is the medium of learning their course of study. It's also the course that harnesses Language skills within the context of their discipline.

On the other hand, English language is medium of instruction in schools (both lower, upper and higher education). Therefore, it's taught as a general course and discipline in Colleges of Education. Owing to this, students have peculiarities in the use of English language. These enable them produce language codes relevant to the language skills needed in interpersonal communication.

In view of the above, Needs Analysis is proposed in Olaofe (2013) as a framework that guides in language curriculum design and review. Since, it is viewed by Brown (1995) in Kusomoto (2008) as a procedure for collection and analysis of subjective and objective information and classroom activities that influence teaching and learning of a language course relevant to needs of learners in a particular institution.

Further postulates that needs analysis ascertain whether the needs are specific needs, common core needs or deficit needs. Specific language needs are the needs that are peculiar to the academic or carrier needs of the learners. This is the language features in terms of register, discourse patterns and genre specifically used in communicating in the target situation of the students. This can be found in English for Law, English for medicine, English for science and technology, English for classroom instruction etc.

Further explains common core language needs the needs that are common to all Language users in respective of the learners' linguistic background, language proficiency level and field of study. Then deficit language needs arises from a situation that aimed at bringing the gap between the learners' present situation and target situation which function effectively during the language course.

In all of the above Needs, the language curriculum should ascertain the learners' necessities, lacks and wants. Learners' necessities refer to the inevitable linguistic requirements in the language usage that the learners need to know in order to communicate effectively in the academic or professional context of their choice. Lacks refer to the deficiency of the learners regarding their performance in language. Then wants, is what the learners' want to learn in the language usage in order to perform in the language course (Lamri, 2016).

Needs Analysis according to Abudahir, Mahdun and Nor (2014) determines objectives of the course, pedagogical strategies and Evaluation techniques. There are four types of objectives that include proficiency, knowledge, affective and transfer. Proficiency objective facilitates performance in the four language skills namely; listening, speaking, reading and writing. Knowledge objective teaches linguistic and cultural information governing the use of the language. These include register, discourse patterns and genre relevant to the communicative context of the learners. Then affective objective which has to do with the attitude towards learning the language. This facilitates motivation in second language learning. Lastly, teaching the ability to transfer linguistic item in similar situation.

Pedagogical strategies refer to the choice of approaches, methods and techniques in language teaching and learning. Learning needs analysis determines the theories and practice in the process of the teaching and learning. The expectation here is to determine teaching strategies that

suite the students academics needs. Learning needs analyses is a theory that takes care of pedagogical needs of learners as stated in Songhori (2007).

Evaluation is assessment of the extent to which the course objectives are achieved. Two types of evaluation are identified which are formative evaluation and summative evaluation. Formative is carried out during the course in order to make adjustments in in the methodology or the materials used in the teaching and learning process. While summative evaluation takes place after the programme in order to assess the effectiveness of the curriculum (Dudley- Evans & St-Johns,1998) in (Kalbu Studijos, 2012).

Owing to the above, it will be great inspiration to examine the communication needs in the academic context of NCE students in the College of Education and Legal Studies Nguru Yobe State. Being an institution that trains students with National Certificate of Education (NCE).

### **Statement of the Problem**

Needs Analysis plays a significant role in teaching and learning second or foreign language. It is a framework that creates harmonious relationship between teachers, learners, teaching objectives, procedure materials and Evaluation techniques in order to generate a desirable outcome of the instructional objectives. Unfortunately, in Nigeria the case is different. No study of language needs is carried out in the design of a language course. Balogun (2017) examine that, the objectives of the use of English taught in Nigerian polytechnic are generalized that teaches out of context without paying attention to the needs of the learners and their proficiency in English language remain poor.

Similarly, in context of the present study, the students' proficiency in English language is poor consequently they face difficulties in their studies since the English language is medium of instruction in schools and colleges. This may be as a result of inconsistency between the language course and the academic needs of the learners. The teacher and the learners may be confuse on what they are actually learning regarding the language; Why they are learning it and how the learning should take place. It's therefore worthwhile to ascertain if the English language taught in GSE course relevant to the academic needs of NCE students COELS in particular and Nigerian colleges of Education in general.

## **Research Objectives**

The study have following objectives:

1. To determine the relevance of the objectives of teaching English in GSE course with the academic needs of students in COELS, Nguru, Yobe state.
2. To ascertain the relevance of the pedagogical strategies used in teaching English in GSE course with the academic needs of the students in COELS, Nguru, Yobe state.
3. To determine the how the evaluation strategies used in in English in GSE course assist the students of COELS in attaining their academic needs.

## **Research Questions**

The study answers the following questions:

1. To what extent do the objectives of the teaching English in GSE course is relevant to the academic needs of NCE students in COELS Nguru, Yobe State?
2. How relevant are the pedagogical strategies used in teaching English in GSE course to the academic needs of NCE students in COELS?
3. To what extent do the Evaluation techniques used in teaching English of GSE course assist attaining the objectives relevant to the academic needs of the learners?

## **Research Hypotheses**

These are the null hypothesis tested in the study.

1. There is no significant relationship between the objectives of teaching English in GSE course and the academic needs of the learners in COELS, Nguru Yobe State.
2. There is no significant relationship between the pedagogical strategies used in teaching English in GSE course and that of the academic needs of the learners in COELS Nguru Yobe State.
3. There is no significant relationship between the Evaluation techniques and that of the academic needs of the learners in COELS Nguru Yobe State.

## **Methodology**

The study employed survey design which employs tools as a means of gathering information about the characteristics, actions, opinion of a large group of people by sampling a few to represent whole. It assesses needs, evaluate demands and examine impact. In this respect, the researcher collects the data by using qualitative and quantitative method of data collection and analysis.

The study employed Purposive sampling as shown in the population and sampling. A total number of 165 students and 12 lecturers sampled out of 2261 total of the study's population. This is summed as 177 total sample in the study.

The study employed questionnaire, observational checklist and conferencing technique as instruments for data collection in the study. The instruments were adapted from Jibril (2021) and constructed to assess the relevance of the English taught in GSE course with the needs of the learners. Two questionnaire of 5 likert scale each consisting 30 close ended items were designed for lecturers and the students followed by open ended questions The questionnaires were tagged needs analysis of English for academic purpose questionnaire 1 and 2 (NATEAPUQ 1 & 2). The observational checklist was tagged Needs Analytical Investigation of Teaching English for Academic Purpose Observational Checklist (NATEAPOC) designed to observe extent of English language taught in GSE course relevance to needs of the NCE students was verified in students and teachers' responses in the questionnaire. The conferencing sessions was organized by selecting some students and lecturers by the researcher to assess issues related to needs, relevance of the English course taught and their suggestions for improving pedagogy through open ended questions.

In the analyses mean and standard deviation was used at the descriptive level in answering the research questions. At the inferential level Pearson Product Moment Correlation Coefficient (PPMC) was used in testing hypotheses. The relationship between English taught in GSE course and the academic needs of NCE students was obtained in the questionnaire and the observation respectively. Discussion method was used to qualitatively analyze the result obtained in the conference and open ended section of the questionnaire.

## Data Presentation and Result

The data are presented and analyzed based on the research questions and null hypotheses as follows.

### Research Question One

To what extent are the objectives of English taught in GSE course is relevant to the academic needs of NCE students COELS Nguru, Yobe State?

This research question was analysed using descriptive statistics of means and standard deviations. The result of the analysis is presented in Table below.

**Table 1.2 Mean and Standard Deviations on objectives of teaching English for specific purposes to the needs of students**

Variable	N	Mean	Std. Deviation	Mean difference
Questionnaire	234	38.26	3.997	20.43
Observation	12	17.83	2.691	
<b>Total</b>	<b>246</b>			

The Table above presents means and standard deviations on objectives of English taught relevance to the academic needs of students in COELS. The mean English for academic needs of the learners was 38.26 (SD=3.997) and that of the English taught in GSE course was 17.83 (SD=2.691). The mean difference was 20.43 in favor of English for academic needs of the learners. Similarly, the open ended section of the questionnaire and the responses of the students in the conference held at the schools indicate less relationship between the objectives of the English taught in course GSE and that of the academic needs of the students. As shown in the extract of the transcript below:

Question: “why do you need to learn English as NCE students?”

- i. in order to communicate with our lecturers and colleagues.
- ii. in order to study my course of study.
- iii. I want to write report writing and make presentation.
- iv. in order to interact with students in teaching practice.

- v. I want to learn how to use English grammar and use correct English in writing exams.
- vi. I want to listen and understand lecturers speaking in English language.
- vii. I want read and understand English books and write long Essays in English

This is not sufficiently reflected in the specific objectives of the course. It is only stated in the general objectives of the course.

### Research Question Two

How relevant are the pedagogical strategies used in English taught in GSE course in COELS, Nguru, Yobe State and academic needs of the students?

This research question was analysed using descriptive statistics of means and standard deviations. The result of the analysis is presented in Table 3.2.

**Table 1.3 Means and Standard Deviations on Pedagogical Strategies of Teaching English for Specific Purposes to the Needs of Students**

Variable	N	Mean	Std. Deviation	Mean difference
Questionnaire	234	37.63	5.137	22.8
Observation	12	14.83	3.460	
<b>Total</b>	<b>246</b>			

Table 4.3 presents means and standard deviations on pedagogical strategies used in English taught in GSE course to the academic needs of students in mono-technic colleges. The mean of pedagogical strategies of academic needs was 37.63 (SD=5.137) and the ones used in English taught in GSE course was 14.83 (SD=3.460). The mean difference was 22.8 in favor of pedagogical strategies of academic needs of the students.

To confirm the extent of the relevance of the pedagogical strategies relevance with academic needs of NCE students in COELS, Nguru, Yobe state, open ended section of the questionnaire and conference indicate the pedagogical strategies of the students' needs. The lecturer think that the learner centered approach through classroom interaction by given exercises and tasks is most preferred approach. But the students believed that exercises are rarely given in English classes.

They also think that they need additional strategies that will enable them interact in English language.

**Research Question three**

To what extent do the evaluation strategies used in English course taught in GSE course COELS Nguru of Yobe State assist in achieving the objective of English for Academic purposes?

This research question was analyzed using descriptive statistics of means and standard deviations. The result of the analysis is presented in Table 3.3 below.

**Table 1.4 Means and Standard Deviations on Evaluation of Teaching English for Specific Purposes to the Needs of Students**

Variable	N	Mean	Std. Deviation	Mean difference
Questionnaire	234	34.37	4.733	11.54
Observation	12	22.83	4.529	
<b>Total</b>	<b>246</b>			

The table presents means and standard deviations on evaluation strategies used in English taught in GSE course in COELS and the objectives of evaluation needs of English for academic purposes. The mean evaluation strategies of teaching English for academic purposes was 34.37 (SD=4.733) and that English taught in GSE course was 22.83 (SD=4.529). The mean difference was 11.54 in favor of evaluation strategies of teaching English for academic purposes.

The result of the open ended section of the questionnaire and conference responses show that the evaluation strategies used in English taught in GSE course is inadequate to assist in achieving the academic needs of the students. They consider formative evaluation as more appropriate.

**Hypothesis One**

There is no significant relationship between the objectives of English taught in GSE course in COELS, Nguru, Yobe State and that of the academic needs of students.

This null hypothesis was tested using inferential statistics of Pearson’s product moment correlation coefficient (r). The result of the analysis is presented in Table 4.1

**Table 1.5 Summary of Pearson's correlation coefficient (r) on the objectives of teaching English for specific purposes to the needs of students**

Variable	N	Mean	Std. Deviation	R	P
Questionnaire	234	38.26	3.997	0.317	0.315
Observation	12	17.83	2.691		
<b>Total</b>	<b>246</b>				

The table presents summary of Pearson's correlation coefficient (r) on the objectives of teaching English for academic purposes and the needs of students. The correlation coefficient r, on the objectives of teaching English for academic purposes and the needs of students was  $r=0.317$  and  $p=0.31$  the null hypotheses which stated no significant difference was retained. The relationship between the objectives of teaching English for academic needs of the learners and the objectives of English taught in GSE course was weak. Therefore, there was no significant relationship between the objectives English taught in GSE course in COELS and the academic needs of students.

### Hypothesis Two

There is no significant relationship between the pedagogical strategies used in English taught in GSE course COELS Nguru, Yobe State and the academic needs of students. This null hypothesis was tested using inferential statistics of Pearson's product moment correlation coefficient (r). The result of the analysis is presented in Table 4.2

**Table 1.6 Summary of Pearson's Correlation Coefficient (r) on the Pedagogical Strategies of Teaching English for Specific Purposes to the Needs of Students**

Variable	N	Mean	Std. Deviation	R	P
Questionnaire	234	37.63	5.137	-0.011	0.972
Observation	12	14.83	3.460		
<b>Total</b>	<b>246</b>				

Table 1.6 presents summary of Pearson's correlation coefficient (r) on the pedagogical strategies of used in English taught in GSE course and the academic needs of students. The correlation coefficient r, on the pedagogical strategies used in English taught in GSE course and the

academic needs of students was  $-0.011$  and  $p=0.972$ , the null hypotheses which stated no significant difference was retained. The relationship between the pedagogical strategies used English taught in GSE course and the academic needs of the students was weak negative. Therefore, there was no significant relationship between the pedagogical strategies used in English taught in GSE course and the academic needs of NCE students in COELS Nguru Yobe State.

### Hypothesis Three

There is no significant relationship between the evaluation strategies used in English taught in GSE course and the academic needs of students in COELS Nguru Yobe State Nigeria.

This null hypothesis was tested using inferential statistics of Pearson's product moment correlation coefficient ( $r$ ). The result of the analysis is presented in Table 1.7

**Table 1.7 Summary of Pearson's Correlation Coefficient ( $r$ ) on the Evaluation Strategies of Teaching English for Specific Purposes to the Needs of Students**

Variable	N	Mean	Std. Deviation	R	P
Questionnaire	234	34.37	4.733	-0.134	0.677
Observation	12	22.83	4.529		
<b>Total</b>	<b>246</b>				

The table presents summary of Pearson's correlation coefficient ( $r$ ) on the evaluation strategies used in English taught in GSE course and the academic needs of NCE students in COELS Nguru Yobe State. The correlation coefficient  $r$ , on the evaluation strategies used in English taught in GSE course to the academic needs of students was  $-0.134$  and  $p=0.677$ , the null hypotheses which stated no significant difference was retained. The relationship between the evaluation strategies of teaching English for specific purposes and needs of the students was weak negative. Therefore, there was no significant relationship between the evaluation strategies in English taught in GSE course and the academic needs of students in COELS Nguru Yobe state.

### 4.3 Summary of Findings

1. No significant relationship was found between the objectives of teaching English in GSE course and the academic needs of NCE students in COELS Nguru Yobe State.

2. Significant relationship doesn't exist between the pedagogical strategies used in teaching English in GSE course and the academic needs of NCE students in COELS Nguru Yobe State.
3. No significant relationship was found between the evaluation strategies used in teaching English in GSE course and the academic needs of students in COELS Nguru Yobe State.

### **Discussion of Findings**

The findings above, show that some research questions and null hypotheses were raised in this study. This is in order to determine the relevant objectives that will form the basis of content development, pedagogical strategies, materials choice and evaluation strategies.

The finding on the objectives of teaching English for academic purposes in research question and hypothesis shows no significant relationship with needs of the learners. Mean, standard deviation and correlation coefficient were used to objectively answer the question and test hypothesis on the issue of the objectives of teaching for specific purposes represented in close ended section of the questionnaire and observational checklist. The objectives of teaching English for academic purposes found in close ended section were found to be unrelated to the ones observed in checklist during classroom observation (see table 3.1 and 4.1).

Subjectively, the responses in the open ended section of the questionnaire and conference session show no significant relationship between the objectives of teaching English in GSE course in COELS and academic needs of the learners.

In view of the above, Stem (1992) in Simion (2015) provides four types of objectives in teaching EAP which are to be determined by target situation needs of the learners. They include proficiency, knowledge, transfer and affective objectives. Proficiency objective is the acquisition of the four language skills. Knowledge objective is the acquisition of the applied linguistics in the cultural setting of the learners' target situation. Transfer objective is the ability to generalize what has been learned in similar situation. Affective objective is development of positive feeling towards the study. This is supported by Romo (2006) where proficiency of language skills and knowledge of the applied linguistics of the socio cultural settings that form communicative needs of learners' profession will be the objectives of teaching EAP similar to the target needs of NCE

students in COELS Nguru Yobe states identified in the open ended responses of the students and lecturers.

The above finding should be translated in to the course content as identified by objective and subjective analysis of the data collected. They think that they want to learn how to pronounce English words in speaking, how to use English grammar in speaking and writing, how to interact in claaroom with colleagues. They also want to learn how to write and present papers, how to write reports, write notes during practicals.

This can be supported by recommendation of Dudley-Evans & St-Johns (1998) on content selection in organization of EAP course syllabus. The learners should be taught specific register, discourse and genre related to their target context. The register will enable the students to learn vocabulary for classroom instruction, lexis and structure specific to academic texts.

To further reinforce teaching register for specific academic purposes, Donesch-jezo (2014) lists four categories of vocabulary that are found in academic and professional context. These include high frequency words, academic words, technical words and low frequency words. High frequency words are one that are found in all texts include function words and content words. Functions words are words that appear in all kind of texts e.g. articles, prepositions, conjunctions etc. Content words include nouns, verbs, adverbs and adjectives. They are the general service words of English ademic words are ones that frequently appear in academic texts regardless of the subject area of the text. These words are not common in non-academic texts e.g. factor, method, effect, function, significant etc. (Bhatia, 2018).

## **Conclusion**

Sequel to the above, it's noted that the students need to be taught based on the communicative needs of their profession. Therefore, specific academic and professional needs of the students target profession should be taking into consideration by the curriculum planners. Therefore, the objectives of the course should be centered on enabling the students with the ability to use four language skills with appropriate vocabulary, pronunciation and grammar in specific context of the students' situation.

## **Recommendations**

In line with the above findings the following recommendations are made:

1. The objectives of curriculum of Teaching English in GSE course should be reviewed to reflect the academic needs of NCE students.
2. The Teaching and learning approach should be learner centered which is eclectic and pragmatic in nature that suit the academic context of NCE students.
3. The evaluation should be both formative and summative that reflects in the objectives of the course.

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## INFLUENCE OF TEACHER QUALIFICATION AND EXPERIENCE ON ACADEMIC ACHIEVEMENT OF STUDENTS IN PUBLIC SENIOR SECONDARY SCHOOLS IN YOBE STATE, NIGERIA

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### ABSTRACT

*The study determined the influence of teacher qualification and experience on academic achievement of students in public senior secondary schools in Yobe state, Nigeria. The study adopted survey and correlational research designs. The population of the study was three thousand two hundred (3,200) teachers and sixty-three thousand, nine hundred and fifty-three (63,953) students in forty-eight (48) public senior secondary schools. Out of these, two hundred and seventy-four (274) teachers and three hundred and seventy-five (375) students in twelve (12) public senior secondary schools were sampled using stratified random sampling technique. The study used questionnaire and proforma as instruments for data collection. Data collected were analyzed using Pearson Product Moment Correlation Coefficient (PPMC). The findings of the study revealed that teacher qualification and experience has positive influence on academic achievement of students in public senior secondary schools in Yobe state, Nigeria. Based on the findings, the study recommended among others that Yobe State Ministry of Education and Teaching Service Board should ensure qualified teachers are recruited when there is need for recruitment and training and retraining of teachers should be done by NGOs as it has shown a significant influence on students' academic achievement.*

**Keywords:** Teacher Qualification, Teaching Experience, Academic Achievement

### Introduction

Education is globally acknowledged as a fundamental human right, vital for the prosperity and well-being of individuals and societies at large. To achieve this fundamental right, government should allocates huge amount of funds annually for the survival and development of education sector. According to Odigwe and Owan (2019), United Nations Educational, Scientific and Cultural Organization (UNESCO) recommends that developing countries allocate at least 26 per cent of their national budget to education. This recommendation is based on the understanding

that education is crucial for economic and social development. This allocation of funds is targeting the provision of qualitative and adequate educational resources. Recruiting qualified and experienced teachers, provisions of well-equipped laboratories and libraries, learner-friendly classrooms and instructional materials could have a great effect on the academic achievements of students. Teachers that received trainings in education and acquired certificates in education from universities and colleges are always equipped with pedagogical skills that help in effective and efficient teaching which in turn gives out desired academic achievement of learners. Teachers with many years of teaching experience are acquainted with numerous teaching methods and academic needs of students and so can manipulate these methods to suit the needs of the students for a desirable academic achievement.

Faith & Lucas (2019) studied the impact of educational resources on student's academic achievement in public secondary schools. They stated that, availability of qualified teachers determined the achievement of students in school. A teacher that is qualified can manipulate instructional materials to suit the type of students he/she is handling for a better academic outcome. The proficiency of teachers' experiences have a significant effect on the academic attainment of students, thus, the success of the students lies on the quality of learning that take place on the classroom and the effective and efficient achievement of teacher in school.

### **Statement of the Problem**

Despite increased educational funding, Yobe State's public senior secondary schools continue to underperform in the West African Senior Secondary School Certificate Examination (WASSCE) as reported by National Bureau of Statistics (NBS) from 2016-2018 for the state. The report revealed that, of the thirteen thousand three hundred and seventy-eight (13,378) students that sat for the examination in 2016, only 13.9% got five credit and above including Mathematics and English. While in 2017, of the 13,297 students that sat for the examination 26.70% got five credit and above including Mathematics and English. And in 2018, 16,898 students sat for the examination but only 15.82% got five credit and above including Mathematics and English. These percentages are lower compared to that of other states of the federation. It will be recalled that report given by the education team during the Yobe state Economic Summit in 2008, secondary schools in Yobe state suffered from lack of adequate qualified teachers, basic materials such as textbooks, reference books and that most schools did not have functional

libraries. Again, in 2019, the Executive Governor of the state declared a state of emergency in basic and secondary education which led to the formation of technical committee to conduct a survey to determine the root causes of the low achievement of Yobe state students in SSCE. The technical committee in their interim report submitted that 30% of teachers in the state had no teaching qualification. The influence of teacher qualification and experience on students' academic achievement in senior secondary schools has been debatable, which calls for investigation. It is therefore in view of the above, this research aims to explore the extent to which teacher qualifications and experiences contribute to students' academic achievement in public senior secondary schools in Yobe state, Nigeria.

### **Objectives of the Study**

The study was set to determine the influence of:

1. teacher qualification on academic achievement of students in public senior secondary schools in Yobe state, Nigeria.
2. teaching experience on academic achievement of students in public senior secondary schools in Yobe state, Nigeria.

### **Research Hypotheses**

The following hypotheses were tested at 0.05 level of significance:

**Ho1:** there is no significant influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe state, Nigeria.

**HO2:** There is no significant influence of teaching experience on academic achievement of students in public senior secondary schools in Yobe state, Nigeria.

### **Scope and Delimitation of the Study**

This study was delimited to the forty-eight (48) public senior secondary schools in Yobe state. The study was also delimited to the influence of teacher qualification and experience on academic achievement of students in public senior secondary schools in Yobe state. The study assessed the WASSCE results of graduated students of twelve (12) randomly selected public senior secondary schools over a period of five (5) years, from 2015-2019. The study considered the following co-curricular subjects: English, Mathematics, Biology, Physics and Chemistry.

## **Literature Review**

According to Aina and Sunday (2015) “teacher qualifications can be divided into personal quality and certification”. The personal qualities include teaching strategies, professional development, motivation, and interaction, while the certification include formal education, certificates, and in-field preparation. They further stressed out that what qualify someone to teach and that can influence students’ academic achievement are related to certain qualities teacher got in the classroom and was certificated at a particular period of his or her lifetime. The second one is those related to personal qualities that are continuous in his or her lifetime. Degree certificates, formal education, and in-field preparation are not throughout the life of a teacher. Once a teacher has them, it is over for his or her lifetime. Teaching strategies, experience, professional development, motivation, and interaction are personal to the individual teacher and keep changing in a teacher’s life. A teacher who has a bad teaching strategy today may not have it another time. A teacher’s experience today will not remain the same in a year to come, so is professional development. A teacher who is poor in motivating and interacting with students today may not remain the same another time. The two categories of qualifications influence learning and lead to the learning outcome. This learning outcome could either be positive or negative depending on the teacher.

Abdullahi (2016), stated that “academic achievement is the knowledge gained which is assessed by marks by a teacher and/or educational goals set by students and teachers to be achieved over a specific period. He added that these goals are measured by using continuous assessment or examinations results”.

Unanma, Abugu, Dike and Umeobika (2013), have examined the relationship between teacher’s academic qualifications and academic achievement of Senior Secondary school Students in Chemistry in Owerri West LGA, Imo state. They found out a positive relationship between the teacher’s academic qualifications and student’s academic achievement.

Owolabi and Adedayo (2012), have conducted a study work on the topic Effect of Teacher’s Qualification on the Achievement of Senior Secondary School Physics Students: Implication on Technology in Nigeria. The study examined the effect of teacher’s qualification on the achievement of senior secondary school students in Physics. The results revealed that students taught by teachers with higher qualifications performed better than those taught by teachers with lower qualifications. It also showed that students performed better in physics when taught by

professional teachers. The result also showed that a teacher's gender has no effect on their ability to impact knowledge on the students, much as he/she is a skilled teacher in that field of study. However, the experience of the teacher is significant at impacting the students' academic achievement in Physics.

Isaac, Dahiru and Abubakar (2020), conducted a study on the relationship between teacher's quality and senior secondary school students' academic achievement in Chemistry in Maiduguri Metropolis, Borno State, Nigeria. The findings of the study revealed that there was significant relationship between teachers' qualification and senior secondary school students' academic achievement in Chemistry in Maiduguri Metropolis, Borno State, there was significant relationship between teachers' experience and senior secondary school students' academic achievement in Chemistry in Maiduguri Metropolis, Borno State.

Bolarinwa, Kolawale, Ayodele, Fakunle and Adetule (2020), conducted study on the influence of teachers' teaching experience and educational qualification on academic performance of students in public secondary schools in Ekiti State, Nigeria. The study revealed that there was a significant relationship between teachers' teaching experience, educational qualification, and academic performance of students. The study had shown that teaching experience and educational qualification had influence on academic performance of students.

Yusuf (2016), carried out a study on relationship between teachers' qualification and experience on students' academic achievement in College of Education in Kaduna State, Nigeria. The study indicated that students taught by teachers with 5-15 years of experience performed better than students taught with 1-4 years' experience.

Owoeye and Yara (2011), carried out a study on relationship between teachers experience and students' academic achievement in senior secondary schools in Ekiti, State, Nigeria. The study was a causal comparative research design. The study revealed that as the number of years of teaching experience progresses, the students' academic achievement keeps improving. This is evident with the fact that teachers having less than three (3) of experience were not effective in classroom, and the achievement was below average (33.3%) as compared to teachers who have five (5) years and above and teaching experience whose students' academic achievement is high (83.3%).

Temitope and Olabanji (2015), conducted a study which investigated the influence of teachers' teaching experience on the academic achievement of public secondary school students in Mathematics and English Language in Ado-Odo/Ota and Ifo Local Government Areas in Ogun State. Findings reveal that teachers' teaching experience has significantly influenced students' academic achievement in Mathematics and English Language as measured by their achievement in the senior secondary certificate examinations and as perceived by the respondents.

### **Methodology**

The study used survey and correlational research designs. The population for the study comprises of all the three thousand and two hundred (3,200) teachers and all the sixty-three thousand and fifty-three (63,953) students of the forty-eight (48) public senior secondary schools in Yobe state, Nigeria. A Stratified Random Sampling technique was used to select a sample of two hundred and seventy-four (274) teachers and three hundred and seventy-five (375) students in the twelve (12) sample schools in the three education zones of Yobe state, Nigeria.

The instruments used in this study were Questionnaire and Proforma. A set of Questionnaire was designed by the researcher to collect information on teachers' qualification, years of experience in senior secondary school in Yobe State. The questionnaire has two sections. Section A and B. Section A covers demographic information of the respondents and section B covers teachers' qualification and teachers' years of teaching experience. The proforma was used to collect data on students' academic achievement for the period of five years (2015-2019). The subjects that were measured are Mathematic, English, Biology, Chemistry and Physics. The subjects were chosen on the basis of being core science subjects offered in senior secondary schools. To determine the validity and reliability of the instrument, it was subjected to face and content validity by professionals in the field of Educational Administration and Planning and Measurement and Evaluation. The instruments were also subjected to pretest in one of the schools that is not part of the sample to determine the reliability index using Cronbach Alfa reliability.

The data collected were analysed using Pearson Product Moment Correlation Coefficient (PPMC). The Pearson Product Moment Correlation Coefficient compares two variables which are subject to less error (Sambo, 2000). It determined relationship between teachers' qualification and students' academic achievement, teachers' years of teaching experience and academic

achievement, instructional materials and academic achievement and library facilities and students' academic achievement in public senior secondary schools in Yobe State, Nigeria.

**Results**

Data collected were analysed using the Pearson Product Moment Correlation Coefficient to determine the influence of teacher qualification and experience on academic achievement of students in public senior secondary schools in Yobe state. Results were summarized and presented in tables 1 and 2 below.

**Hypothesis One:** There is no significant influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe state.

Pearson Product Moment Correlation Coefficient was used to determine the influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe state.

**Table 1: Summary of the Pearson Product Moment Correlation Coefficient on the influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe state.**

Variable	N	Mean	SD	df	r	p-value	Remark
Academic Achievement	375	5.00	1.81				
Teachers' qualification	271	61.55	12.75	644	0.877	0.000	Reject H <sub>01</sub>

**\*Significant at p<0.05**

Table 1 gives the summary of the Pearson Product Moment Correlation Coefficient on the influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe state. The study revealed that, there was a strong positive influence of teacher qualification on academic achievement of students with Pearson Product Moment Correlation Coefficient  $r = 0.877$ . The study further revealed that, the influence of teacher qualification on academic achievement of students is statistically significant with p-value (0.00) less than the level of significant (0.05). Therefore, hypothesis one is rejected.

**Hypothesis Two:** There is no significant influence of teaching experience on academic achievement of students in public senior secondary schools in Yobe state.

Pearson Product Moment Correlation Coefficient was used to determine the influence of teaching experience on academic achievement of students in public senior secondary schools in Yobe state.

**Table 2: Summary of the Pearson product moment correlation coefficient on the influence of teaching experience on academic achievement of students in public senior secondary schools in Yobe state.**

Variable	N	Mean	SD	df	r	p-value	Remark
Academic Achievement	375	5.00	1.81				
				644	0.758	0.004	Reject H <sub>02</sub>
Teaching Experience	271	4.92	2.47				

**\*Significant at  $p < 0.05$**

Table 2 gives the summary of Pearson Product Moment Correlation Coefficient influence of teaching experience on academic achievement of students in public senior secondary schools in Yobe state. The study revealed that, there was a strong positive influence of teaching experience on academic achievement of students with Pearson Product Moment Correlation Coefficient  $r = 0.758$ . The study further revealed that, the influence of teaching experience on academic achievement of students is statistically significant with p-value (0.004) less than the level of significant (0.05). Therefore, hypothesis two is rejected.

### Discussions of Findings

The findings of this study with respect to hypothesis one on influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe State, revealed that there was a strong positive influence of teacher qualification on academic achievement of students in public senior secondary schools in Yobe State. This finding is in line with the findings of Bolarinwa, Kolawale, Ayodele, Fakunle and Adetule (2020), Unanma, Abugu, Dike and Umeobika (2013), Owolabi and Adedayo (2012), and Isaac, Dahiru and Abubakar (2020), found that there is a positive influence of teachers qualification on students' academic achievement.

With respect to the findings on the influence of teaching experience and academic achievement of students in public senior secondary schools in Yobe state. The study found a strong positive

influence of teaching experience on academic achievement of students in public senior secondary schools in Yobe state. This finding collaborated with the findings of Owoeye and Yara (2011), Temitope and Olabanji (2015), and Yusuf (2016), whose study reported a positive influence of teaching experience on academic achievement of students in public senior secondary schools. This agreement might be as result of similarity in subject combination (Science based subject) and at senior secondary school level in SSCE. This implied that as the number of years of teaching experience progresses, the students' academic achievement keeps improving. Invariably, experienced teachers significantly influence academic achievement of students in science related subject in senior secondary school level.

### **Conclusions**

Based on the findings of the study, it is concluded that there was a strong positive influence of teacher qualification and experience on academic achievement. This implied that teacher qualification and experience had significant influence on academic achievement of students in public senior secondary schools in Yobe state, Nigeria.

### **Recommendations**

In view of the findings, the following recommendations were made:

1. Yobe State Ministry of Education and Teaching Service Board should ensure that qualified teachers are recruited when there is need for recruitment;
2. The Ministry of Education and Non-Governmental Organization should motivate the experienced teachers retraining them on innovative teaching methods to enable them further improve students' learning outcomes;

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**PERCEIVED EFFECTS OF EXCLUSIVE BREASTFEEDING ON NURSING  
MOTHERS ATTENDING HOSPITALS IN ILORIN SOUTH LOCAL GOVERNMENT  
AREA, KWARA STATE**

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**ABSTRACT**

*This study was carried out to investigate the perceived effects of exclusive breastfeeding on nursing mothers attending hospitals in Ilorin South Local Government Area of Kwara State with emphasis on how breastfeeding affects the nursing mothers both positively and negatively; influence a reduced risk of metabolic syndrome among nursing mothers and low sexuality at early postpartum period among nursing mothers. A descriptive research survey method was used for the study. A total of 200 respondents (nursing mothers) were selected in adopting a researcher-structured questionnaire as research instrument for data collection from respondents. Two hypotheses were formulated for the study. The data collected was analyzed using an inferential statistics of chi-square, to test the research hypotheses set for the study at 0.05 alpha level of significance, the two hypotheses were rejected. The results revealed that exclusive breastfeeding significantly influence a reduced risk of metabolic syndrome among nursing mothers with cal  $x^2$  value 312.43 > table value of 16.92 at df 9 and Exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers with cal  $x^2$  value 631.43 > table value of 16.92 at df 9. Based on the findings, conclusions were made that exclusive breastfeeding significantly influence a low metabolic risk among nursing mothers in Ilorin South Local Government Area, Kwara State. And exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers. Based on the conclusion, the following recommendation were made; nursing mothers should be encouraged to exclusively breastfeed their infants and policy makers, health care and medical professionals should support exclusive breastfeeding to prevent high risk of developing metabolic syndrome (a combination of medical disorders) and other disorders associated with not breastfeeding exclusively.*

**Keywords:** *Exclusive breastfeeding, nursing mothers, early postpartum period, metabolic syndrome*

## **Introduction**

Breastfeeding is a natural way of providing nutritious food to infants. It is a way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. Although breastfeeding is not recommended for all mothers (such as those who use illegal drugs, receive cancer chemotherapy, or test HIV-positive). It is recognized as the preferred form of infant nutrition by the (American Academy of Pediatricians, 2012).

According to World Health Organization (WHO, 2011) Exclusive breastfeeding is the practice of feeding an infant only with breast milk (including expressed breast milk) and allowing the infant to receive vitamins, minerals supplement or medicine with the exception of other liquids and solid food. Exclusive breastfeeding is now a widely accepted form of nutrition for infants to ensure a good start of life.

Today, WHO recommends exclusive breastfeeding for the first 6 months postpartum and the use of breast milk as a supplementary form of feeding for up to 2 years in order to confer optimal health benefits to the mother and child. A large research literature suggests that women who breastfeed experience an array of health benefits (Bernier, Plu-Bureau, Bossard, Ayzac & Thalabard, 2015 & Rea, 2004). In the short term, breastfeeding helps mothers lose weight gained during pregnancy (Garza & Rasmussen, 2015; Kramer & Kakuma, 2004). Over the long term, breastfeeding is associated with reduced risk of reproductive cancers (Bernier et al., 2015), metabolic syndrome (Ford, Giles & Dietz, 2017; Kramer & Kakuma, 2004), type 2 diabetes (Stuebe & Rich-Edwards, 2017), and cardiovascular disease (Schwarz, Ray, Stuebe, Allison, Ness, Freiberg, Cauley, 2017). The literature linking breastfeeding to improved health has been reviewed (Bernier et al., 2015 & Rea, 2004).

Breastfeeding is calorically costly and is therefore associated with weight loss after pregnancy. Human mothers devote an estimated 525 to 625 calories per day producing the 750 ml of milk infants require daily over the first year of life (Garza & Ramussen, 2015). In a study that followed more than 20,000 Danish women from pregnancy to 18 months postpartum, women who exclusively breastfed for the recommended 6 months after birth lost an additional 2kgs (4.4 pounds) of pregnancy-related weight by 6 months postpartum than women who breastfed for shorter durations (Baker et al., 2016). In line with this result, a systematic review of 20 studies

showed that exclusive feeding with breast milk for the first 6 months postpartum predicts significantly greater post pregnancy weight loss than with mixed forms of breastfeeding (breast feeding while introducing other foods or liquids) (Kramer & Kakuma, 2004).

Studies have also shown that women with a history of breastfeeding have a reduced risk of developing metabolic syndrome, a combination of medical disorders, such as obesity, insulin resistance, and high blood pressure, which increases the risk of cardiovascular disease and diabetes (Ford et al., 2017). A cross-sectional analysis of 2,516 midlife women found a 20% reduction in the risk of developing metabolic syndrome for every additional year of breastfeeding (Ram, Bobby, Hailpern, Schocken, Skurnick & Santoro, 2016). A large study found that women who breastfed over their lifetime for 2 years or more were 23% less likely to develop coronary heart disease than women who never breastfed, even after controlling for parental history, early adult adiposity, and various lifestyle factors (Stuebe, Michels, Willett, Manson, Rexrode & Rich-Edwards, 2017).

Recent research indicates that breastfeeding may reduce the risk of developing both type 2 diabetes and cardiovascular disease. Among 139,681 postmenopausal women and those who reported a lifetime history of breastfeeding of more than 1 year were less likely to develop postmenopausal diabetes, hypertension, and cardiovascular disease than women who never breastfed (Schwarz et al., 2017). Breastfeeding may also protect against breast and ovarian cancers by suppressing ovulation, and thus limiting lifetime estrogen exposure (Clemons & Goss, 2011). There is 1.4% reduction in ovarian cancer risk for every additional month of breastfeeding (Jordan, Siskind, Green, Whiteman & Webb, 2016). Breastfeeding has many possible benefits for mothers, but it can also clash with other goals for women. Most mothers will have some nipple discomfort during the first 10 days of breastfeeding (Riordan, 2005). If pain is prolonged, a medical assessment by a lactation consultant or nurse is usually required to identify the source of the problem. The most common causes of severe nipple pain are non ideal positioning of the infant at the breast or poor suckling technique on the part of the infant (Morland-Schultz & Hill, 2005). A study found that breastfeeding at 3 months was related to reduced frequency of sex, sexual desire, and sexual satisfaction as compared to women who were not breastfeeding (Judicibus & McCabe, 2017).

The purpose of this study is to examine if exclusive breastfeeding will influence a reduced risk of metabolic syndrome, (a combination of medical disorders) and influence low sexuality at early postpartum period among lactating mothers.

### **Statement of the Problems**

Despite the existence and dissemination of the contents of the National Policy on the benefits of breastfeeding, exclusive breastfeeding practices have remained poor. The practice of exclusive breastfeeding has been less optimal in many developing countries including Nigeria. More than 50% of Nigerian mothers fed contemporary foods too early to their infants which are often of very poor nutritional value (Federal Ministry of Health, 2005). Often times, these practices are as a result of traditional and modern perceptions of breastfeeding and its benefits, some of which are not based on scientific evidence (Aniebue, Aniebue, Adimora, 2016; Semanga, Behler, Holm, Matheson & Holmboe-Ottesen, 2011 & Adugne, 2018).

A study that analyzed data from a national public opinion survey conducted in 2011 found that only 43 percent of U.S. adults believed that women should have the right to breastfeed in public places (Hsia, Fridinger, Hussain, Benton-Davis & Grummer-Strawn, 2004). When breastfeeding mothers breastfeed in public places, they were asked to stop breastfeeding or to leave (Vance, 2005). Such situations make women feel embarrassed and fearful of being stigmatized by people around them when they breastfeed (Gill, Reifsnider, Mann, Villarreal & Tinkle, 2004; Khoury, Moazzem, Jarjoura, Carothers, Hinton, 2005 & Raisler, 2015).

Breastfeeding can place a burden on women's time and freedom from childcare responsibilities. A woman providing breast milk exclusively to her child has to breastfeed her child or express milk approximately 8 to 12 times per day during the first 6 months of exclusive breastfeeding (U.S. Department of Health and Human Services' Office on Women's Health [OWH], 2011). Each breastfeeding or expression session takes approximately 15 to 20 minutes, meaning that women will spend an estimated 2 to 4 hours per day breastfeeding (OWH, 2011).

More so, studies have also shown that women without a history of breastfeeding have a high risk of developing metabolic syndrome such as obesity, insulin resistance, and high blood pressure, which increases the risk of cardiovascular disease and diabetes (Ford et al., 2017).

Breastfeeding cause partners to have negative attitudes toward breastfeeding in relation to its impact on women's sexuality (Rempel & Rempel, 2011). Breastfeeding lowers women's estrogen levels in the early postpartum period (Battin, Marrs, Fleiss & Mishell, 2016), which can lead to decreases in sexual desire and cause vaginal dryness for a subset of women, making sex painful (Brown & McDaniel, 2016). The researchers observed that nursing mothers who do not breastfeed exclusively suffer mostly from cancer and metabolic syndrome. It was also observed that nursing mothers who breastfeed exclusively experience low sexuality at early postpartum period.

### **Objectives of the Study**

1. Influence of exclusive breastfeeding on the reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State.
2. Influence of exclusive breastfeeding on low sexuality at early postpartum peiord among nursing mothers attending hospitals in Ilorin South Local Government Area of Kwara State?

### **Research Questions**

1. Will exclusive breastfeeding significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State?
2. Will exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State?

### **Research Hypotheses**

The following research hypotheses were formulated to guide the study:

1. Exclusive breastfeeding will not significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State.
2. Exclusive breastfeeding will not significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State.

## **Methodology**

A descriptive survey research method was used. This enabled the researcher to seek the opinion of representation sample of population upon which conclusion; inference and generalization are made on a contemporary phenomenon. The population of the study comprised of all nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State. A multi-stage sampling technique was used for the study. First stage, purposive random sampling technique was used to select 10 hospitals from Ilorin South Local Government Area, Kwara State. Second stage, proportionate sampling technique of 24% was used to select the respondents from the selected hospital. While the third stage, simple random sampling technique was used to select 200 respondents on the maternity days for the study.

The research instrument that was used for this study is a researcher's structured questionnaire. The instruments consist of two sections. Section A focuses on the demographic data of the respondents, while Section B consists of statement that was used to test the research hypotheses set for the study. The face and content validity of the research instrument was established by a critical review committee of the hospital and the supervisor and other lecturers in the Department of Health Promotion and Environmental Health Education, Faculty of Education University of Ilorin, their comments, ideas and corrections were embedded into the final research instrument used for the study. In order to establish the reliability of this instrument a pilot study was adopted, using test re-test method. The instrument was administered twice at the interval of two weeks to twenty (20) respondents outside the sample area used. Pearson Product Moment Correlation statistics and a correlation co-efficient of 0.70r was obtained which was high enough for the study. The researcher and two trained research assistant administered the questionnaire to the respondents and ensured the questionnaire were properly filled and collected. The questionnaires were collected, coded, and analyzed. A descriptive statistics of frequency count and percentage was used to answer the research questions while inferential statistics of Chi-square was used to analyze the hypotheses set for the study at 0.05 alpha level of significance to either accept or reject the hypotheses using statistical package for social science (SPSS) version 20.0.

**Results**

**H<sub>01</sub>:** Exclusive breastfeeding will not significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State.

**Table 1: Chi-square Analysis of exclusive breastfeeding and metabolic syndrome among nursing mothers in Ilorin South Local Government Area of Kwara state**

S/N	ITEMS	SA	A	D	SD	DF	CAL VALUE	TABLE VALUE	REMARKS
1	The risk of developing high blood pressure is low among nursing mothers who exclusively breastfeed	158 (79.0%)	20 (10.0%)	12 (6.0%)	10 (5.0%)				
2	Nursing mothers should be encouraged to breastfeed exclusively so as not to develop heart disease	109 (54.5%)	47 (23.5%)	21 (10.5%)	23 (11.5%)	9	312.43	16.92	Ho Rejected
3	Nursing mothers who breastfeed for a year or two are less likely to develop diabetes.	120 (60.0%)	52 (26.0%)	21 (10.5%)	7 (3.5%)				
4	Breastfeeding mothers are less likely to develop obesity	90 (45.0%)	95 (47.5%)	10 (5.0%)	5 (2.5%)				
<b>Column Total</b>		<b>477</b>	<b>214</b>	<b>64</b>	<b>45</b>				

@0.05 alpha level of significance.

The table 1 above shows the calculated value ( $X^2$ ) is 312.43 which is greater than the table value of 16.92 at the degree of freedom of 9 and at 0.05 alpha level of significance, the null hypothesis is thereby rejected, meaning that exclusive breastfeeding will significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State. This implies that nursing mothers are encouraged towards exclusive breastfeeding so as not to develop the risk of metabolic syndrome.

**H<sub>0</sub>2:** Exclusive breastfeeding will not significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State.

**Table 2: Chi-square Analysis of exclusive breastfeeding and reduced sexuality among nursing mothers in Ilorin South Local Government Area, Kwara state.**

S/N	ITEMS	SA	A	D	SD	D F	CAL VALUE	TABLE VALUE	REMARKS
5	Nursing mothers who breastfeed exclusively experience vaginal dryness at early post partum during sexual intercourse	60 (30.0%)	100 (50.0%)	24 (12.0%)	16 (8%)				
6	Breastfeeding mother should be encouraged to avoid sex at early post partum so as to avoid painful sex	110 (50.5%)	82 (46.5%)	6 (2.5%)	2 (0.5%)	9	631.43	16.92	Ho Rejected
7	Exclusive breastfeeding decreases sexual desire at early postpartum period among nursing mothers	103 (51.5%)	80 (40.0%)	6 (3.0%)	11 (5.5%)				
8	Breastfeeding mothers experience more vaginal pain during intercourse at 3 months postpartum	92 (96.0%)	5 (2.5%)	3 (1.5%)	0 (0%)				
<b>Column Total</b>		<b>465</b>	<b>267</b>	<b>39</b>	<b>29</b>				

@0.05 alpha level of significance

The table 2 above shows the calculated value ( $X^2$ ) is 631.43 which is greater than the table value of 16.92 at the degree of freedom of 9 and at 0.05 alpha level of significance, the null hypothesis is thereby rejected, meaning that Exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State. This implies that breastfeeding mothers should avoid sexual intercourse at early post partum period

## **Discussion of Findings**

Hypothesis 1: from table 1 was rejected, exclusive breastfeeding significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State. This is in line with the findings of Ram et al., (2016) that a cross-sectional analysis of 2,516 midlife breastfeeding mothers found a 20% reduction in the risk of developing metabolic syndrome for every additional year of breastfeeding. The authors noted that, although weight loss associated with breastfeeding accounted for a significant portion of the reduced risk. In their sample, breastfeeding was associated with reductions in metabolic syndrome risk above and beyond weight loss, even when health behaviors and socio-demographic variables were statistically controlled. These benefits could owe to the observation that breastfeeding primes the body to become more metabolically efficient.

Hypothesis 2: from table 2 was rejected, exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State. This is in line with the findings of (Brown & McDaniel, 2016) that breastfeeding leads to decrease in sexual desire and cause vaginal dryness for a subset of women, making sex painful. Overall, women perceive that breastfeeding has a slightly negative impact on the physiological aspects of sexuality. 12.7% of breastfeeding mothers reported that breastfeeding made them less sexually attractive and less sexually attracted to their partners, (Avery, Duckett & Frantzich, 2015).

## **Conclusion**

Based on the research carried out on the perceived effects of exclusive breastfeeding on nursing mothers attending hospitals in Ilorin South Local Government Area of Kwara State, the following conclusions were made;

1. Exclusive breastfeeding significantly influence a reduced risk of metabolic syndrome among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State
2. Exclusive breastfeeding significantly influence low sexuality at early postpartum period among nursing mothers attending hospitals in Ilorin South Local Government Area, Kwara State.

## **Recommendations**

Based on the findings of the study, the following recommendations were made:

1. Nursing mothers should be encouraged to exclusively breastfeed their infants; and
2. Policy makers, healthcare and medical professionals should support exclusive breastfeeding to prevent high risk of contracting metabolic syndrome and other disorders associated with poor breastfeeding

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**EMOTIONAL-INTELLIGENCE, REASONING ABILITY AND SELF-EFFICACY AS PREDICTORS OF ACHIEVEMENT OF SENIOR SECONDARY SCHOOL CHEMISTRY STUDENTS, IN ZONKWA EDUCATION ZONE KADUNA NIGERIA**

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**ABSTRACT**

*The study investigated the Relationship among Emotional-intelligence, Reasoning ability, and Self-efficacy as Predictors of Achievement of Senior Secondary School Chemistry Student. The research design for the study was correlation survey design. The instruments used for the study were the Trait Emotional-Intelligence Questionnaire (TEIQue), Group Assessment of Logical Thinking (GALT) and Chemistry Self – Efficacy Instrument (CSI) while the student (MOCK) examination result was used as chemistry achievement scores. The reliability coefficient of the instruments are as follow; Trait Emotional-Intelligence Questionnaire (TEIQue) = 0.80, Group Assessment of Logical Thinking (GALT) = 0.85 and Chemistry Self – Efficacy Instrument (CSI) = 0.75. The participant in the study were 152 (89 male, 63 female) secondary school students from Zonkwa Education Zone, Kaduna, Nigeria, with average age of 17 years. Random sampling was used to select the schools, while intact classes were used. To guide the study four research questions and four null hypotheses were generated and tested at 0.05 level of significance. The responses of the students to the instruments were scored and analyzed using descriptive statistics of mean and standard deviations; the Pearson Product Moment Correlation Coefficient and Analysis of Variance MANOVA were used to test the relationship at  $P \leq 0.05$ . The results showed that there was a significant positive relationship among emotional intelligence, reasoning ability, self-efficacy and academic achievement in chemistry. The results also indicated that there was a significant positive relationship among emotional intelligence, reasoning ability, self – efficacy and academic achievement of SS II male students, SS II female students and their academic achievement in chemistry. The results further indicated no significant differences between SS II male and female mean scores in chemistry, emotional intelligence, reasoning ability and self efficacy. It was therefore concluded that emotional – intelligence, reasoning ability and self – efficacy are predictors of achievement in chemistry. Self efficacy being the strongest positive predictor while reasoning ability being the least positive predictor. It is recommended that science teachers should encourage their students to develop positive emotional-intelligence, strong reasoning ability and self-efficacy towards learning chemistry so as to perform better in natural science.*

**KEYWORDS:** *Emotional-intelligence, Reasoning ability, Self-efficacy, Academic achievement, Relationship, Predictors.*

### **Introduction**

Chemistry has become one of the most important disciplines in the school curriculum; its importance in the general education has gained world-wide recognition (Ejidike & Oyelana, 2015). Chemistry as a branch of science is a basic requirement for economic, scientific and technological development of any nation, especially in the manufacturing sector where materials, coloured and attractive clothing, chemicals, plastic material and other useful household equipment are made available to man. Also chemical products such as fertilizers and herbicides, also products of chemistry, help to scale up farming activities, achieved suitable food production and reduce food importation (Bamikole, Ogunleye & Abiodun, & Bamidele, 2013). Chemistry occupies a unique position in the sciences as a result of its requirement and pre-requisite to the study of courses such as pharmacy, medicine, biochemistry, agricultural science, engineering among others.

Chemistry is a branch of pure science that deals with the composition, properties and uses of matter. Chemistry has always been viewed as an abstract course which is very difficult to understand by learners. For example concepts like mole, volumetric analysis, quantitative analysis and qualitative analysis among others if not properly taught and understood by the learner may lead to various misconceptions. Special attention is required to ensure a lot of concrete examples which are used to teach students who have low emotional intelligence, low formal reasoning (low reasoning ability) and low self-efficacy. This is because researches tends to show that abstract concepts can only be learnt meaningfully by students who have acquired formal, reasoning ability and good self-efficacy (Sirajo, Mari and Olorukooba, 2013). This could be an indication that learning could be related to emotional-intelligence, reasoning ability and self-efficacy.

In the early 1940, David Wechsler has discussed the concept of intelligence that encompasses both elements of the intelligence quotient of cognitive (intellectual) and non-cognitive intelligence (emotionally). Actually, earlier in the year 1920 Thorndike has talked about the concept of social intelligence that has been considered as the basic for the development of the theory of emotional intelligence (Goleman, 1995). Social intelligence is essentially the ability to

understand other people what motivates them, how they work, how to work with them and the ability to act wisely in relationship between human beings. Thus, self – awareness, empathy and dealing with interpersonal relationships are the core of emotional intelligence is actually the basic elements of social intelligence.

The term emotional intelligence was first described by Mayer and Salovey (1990) as a form of social intelligence that involves the ability to monitor one’s own and others feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action. It was made popular by Goleman (1995) who refers to it as the ability to sense, understand, value and effectively apply the power and acumen of emotions as a source of human energy, information, trust, creativity and influence. Later, Mayer and Salovey (1997) refined the definition of emotional intelligence as “the ability to detect emotions, to enter and create emotions that help thinking, to understand emotions and emotional knowledge acquired, always thought to control emotions to promote emotional and intellectual development” (Azizi, Yahaya, Boon & Lee, 2012). They believe the combination of the idea that emotions make thinking smart and intelligent thinking about emotions. Again, Mayer and Salovey (2008) stated that some individuals have a greater capacity than others to carry out sophisticated information processing about emotions and emotion-relevant stimuli and to use this information as a guide to thinking and behaviour. Derived from this statement, individuals with high emotional intelligence pay attention to use, understand, and manage emotions, and these skills serve adaptive functions that potentially benefit themselves and others. Goleman in his publication - Azizi et al, 2012), discussed that intelligent quotient (IQ) contributes only 20% to the success of life and the rest 80% by other factors. These factors may include emotional intelligence, luck and social class. He believes that emotional intelligence has a stronger influence in IQ.

Emotion was classified as positive and negative emotions (Abdullah, Elias, Mahyuddin & Uli 2014). Positive emotions, also known as positive affectivity (PA) refers to emotion that range from high energy, enthusiasm and excitement, to calm, quite and withdrawn. Examples of PA are joy, happiness, and laughter. Negative affectivity (NA) involves emotions that are negatively toned, such as anxiety, anger, guilt, and sadness. These emotions are very important to the educative process as the drive attention, and consequently learning and memory (Abdullah et al, 2004). The impact of negative emotions on academic achievement can be examined through the relationship between emotion and learning processes. For instance, emotional maladjustment

could result in inattention and poor memorization resulting in poor school work. According to Kanhai (2014), the relationship between emotional maladjustment and school failure actually is a circular one. Emotional maladjustment affects children's ability to concentrate and to remember, resulting in poor school work which later increases the child's anxiety and frustration causing the child to be emotionally disturbed.

Anything that affects the child's emotional state is likely to affect his school achievement. Anxious, unhappy, and angry youngsters do not make ideal students (Kanhai, 2014) and people who are caught in these states do not take in information efficiently or deal with it well (Abdullah et al, 2004). The link between the child's emotional life and academic performance is clearly seen if we consider the question of anxiety. Over-anxiety can inhibit learning or hinder performance. Take the example of a child who is too anxious to pass an examination to please his parents who have high expectations on him/her. He/she might become so nervous thinking about the consequences of failing his parents that he/she may lose focus to the tasks he/she is attending to. On the other hand, a child who suffers from 'under-anxiety' is not anxious to learn and would not be concerned at his own failure or is not bothered whether learns or not and he is unlikely to progress in school. Other negative effects that portray similar affects on learning are anger, frustration, and sadness. As attention and memorization are crucial in learning and influenced by emotional adjustment, the ability to regulate one's emotion can serve as a tool for adolescents to cope with negative affects when they encounter them in learning situations. Therefore, emotional regulation or emotional intelligence (EQ) plays an important role in students' academic performance above and beyond their cognitive ability.

The connection between emotion and cognition can be explained by the way emotion interacts with cognition. A person who is in good mood tends to think positively and productively and vice versa. As such, the term emotional intelligence quotient. (EQ) implies that emotion and intelligence are interrelated and complementary given rise to emotional intelligence (Mayer, 2001). Belief in the validity of a statement and the ability to reason are also directly connected to emotion. As shown in the Lavins (2011) study where participants' beliefs became more polarized when exposed to arguments disconfirming their beliefs, certain information or topics can elicit emotions in participants, holding the potential to interfere with and bias reasoning as well.

The ability to reason logically is critical for decision makers and people in everyday life and involves the way we use given knowledge and facts to reach a conclusion. Its application is of

crucial importance for advances in the sciences and mathematics, as the scientific method relies heavily on deductive reasoning (a type of logical reasoning in which a conclusion is derived from a premise) and reasoning plays a strong role in a person's ability to make informed, educated and accurate decisions (Lavins, 2011).

Daily functioning and the ability to make important life decisions depend on the person's ability to accurately understand a situation, acknowledge their subjective interpretation of the situation, and reach a logical conclusion based on this supporting knowledge. However, research has consistently shown that people fail to reason logically, and they do so in systematic ways (Lavins, 2011).

Logical reasoning is commonly assessed by evaluating a person's ability to employ deductive reasoning. Deductive reasoning is defined as a closed system in which an individual derives conclusions from preexisting premises and judges truthfulness of a statement through normative logic (e.g., All dogs are black. Tucker is a dog. Therefore, Tucker is black) (Blanchette, 2006). This differs from inductive reasoning, in which an individual generalizes from a specific assumption (e.g., All the birds I have seen can fly, so all birds can fly).

Students who have acquired formal reasoning ability have deep working memory that enable them solve abstract problems in logical fashion. They are also able to apply scientific thinking in solving problems such as stating and testing hypotheses, isolation-of-variables, analyzing data, and ability to keep concepts and their interrelationships in the mind while considering answers. According to developmental theory, descriptive and theoretical concepts constructions are linked to intellectual development because the process depends on reasoning patterns and also reasoning ability relies on not only maturation but also individual self-regulatory mechanisms that are known to enhance purposive and meaningful learning. This tends to suggest that concept acquisition is dependent on students' reasoning ability. Empirical study in support of this was provided by Lawson – Mari (2012) who reported that reasoning ability highly correlated with performance on concepts acquisition tasks for school Biology and chemistry students. Bitner – Mari (2012) also showed that reasoning ability explained 62% of the variance in high school science grades. Herron – Mari (2012) provides the following generalizations that link misconceptions with reasoning ability:

- i. Many misconceptions are related to concepts that involve proportional relationships: density, equilibrium, mole, acceleration, and rates of various kinds.

ii. Many misconceptions are related to theoretical models that require the student to interpret observations in terms of something that cannot be experienced directly: explanations in terms of genetics and evolution, explanations in terms of an atomic model, and explanations in terms of probabilistic models.

iii. Many misconceptions are related to difficulty in following chains of logical inference.

All these arguments point to the significance of reasoning ability to concepts acquisition in science and could also be indication why girls who happen to lag behind boys in reasoning ability perform lower and show less preference for science compared to boy.

When people reason, they must, Bruner's –David, Lohman & Lakin (2009) helpful phrase, go “beyond the information given”. They do this in one or both of the following ways:

i. They attempt to infer (either automatically or deliberately) concepts, patterns, or rules that best (i.e., most uniquely) characterize the relationships or patterns they perceive among all the elements (e.g., words, symbols, figures, sounds, movements) in a stimulus set. Better reasoning is characterized by the use of concepts or rules that simultaneously satisfy the opposing needs for abstraction (or generalization) and specificity. Such concepts or rules tend to be at least moderately abstract yet precisely tuned. Put differently, a poor inference is often vague and captures only a subset of the relationships among the elements in the set.

ii. They attempt to deduce the consequences or implications of a rule, set of premises, or statements using warrants that are rendered plausible by logic or by information that is either given in the problem or assumed to be true within the community of discourse. They often seem to do this by creating and manipulating mental models of the situation. Such models tend to represent explicitly only what is assumed to be true about the situation. Better reasoning involves providing warrants that are more plausible or consistent with the rules of logic or the conditions embodied in a comprehensive mental model. More advanced deductive reasoning involves providing either multiple (possible divergent) warrants for a single claim or an increasingly sophisticated chain of logically connected and separately warranted assertions.

Gender is a socially ascribed attribute, differentiating feminine from masculine (Nwagbo and Chukelu, 2011). It has been reported as one of the factors that may interact with cognitive extent and sources of the recorded differences in the achievement of males and females in

chemistry. While Ifeako, (2005); Obeka (2007); Nwagbo and Okoro (2013); reported that males achieved significantly higher than females, Ekwueme and Umoinyang (2006), Longjohn (2009) reported in favour of females. Opera (2002) did not find significant influence of gender on students' achievement.

Gender differences in self-efficacy have been reported in several researches. For instance, Sadker and Sadker – Tenaw, (2013) reported that girls, starting in grade seven tends to underestimate their abilities in mathematics and science. Smist and Owen and Kinsella – Tenaw, (2012) have documented that female students have lower self-efficacy in mathematics and science compared to male students. Girls' capabilities are undermined by sex-role stereotypes in many cultures intimating that females are not as able as males, especially in such disciplines as mathematics and science (Soffa, 2006). Another contributing factor could be the lower level of expectations that parents, teachers and counselors often hold for girls, which can discourage further study in scientific and technical fields (Soffa, 2006) and American Association of University Women Educational Foundation, (1999) among others, in their study on effect of learning about gender discrimination on girls attitudes toward science, Weisgram and Bigler - Tenaw, (2013) mentioned that low confidence level of girls toward science is partially due to prejudice that girls developed over years: females are not as good as males in terms of science learning. Weisgram and Bigler – Tenaw, (2013) also concluded that informing girls of the discrimination would increase their self-efficacy by changing their attribution of past experience.

Gender Differences in Emotional Intelligence have Competing evidence that exists surrounding whether or not males and females differ significantly in general levels of emotional intelligence. Goleman – Stys and Brown (2004) asserts that no gender differences in E.I. exist, admitting that while men and women may have different profiles of strengths and weaknesses in different areas of emotional intelligence, their overall levels of E.I. are equivalent. However, studies by Mayer, Caruso, and Salovey - Stys and Brown (2004), and Mandell and Pherwani (2003) have found that women are more likely to score higher on measures of emotional intelligence than men, both in professional and personal settings.

Bracket and Mayer (2003) found that females scored higher than males on E.I. when measured by a performance measure (the Mayer-Salovey-Caruso Emotional Intelligence Test). However, when using self-report measures such as the Bar-On Emotion Quotient Inventory (EQ-i) and the Self-Report Emotional Intelligence Test (SREIT), they found no evidence for gender differences.

Perhaps gender differences exist in emotional intelligence only when one defines E.I. in a purely cognitive manner rather than through a mixed perspective. It could also be the case that gender differences do exist but measurement artifacts such as over-estimation of ability on the part of males are more likely to occur with self-report measures. More research is required to determine whether or not gender differences do exist in emotional intelligence, reasoning ability, self-efficacy and academic achievement.

### **Statement of the Problem**

Researches show that some concepts are formal or abstract in nature and can be learned meaningfully by only learners that acquired high emotional intelligence, formal reasoning ability and high self-efficacy. This tends to suggest that advancement in emotional intelligence, reasoning ability and self efficacy could enhance the learning of chemistry concepts. It can also be inferred that achievement in chemistry may have co-relationship with emotional intelligence, reasoning ability, and self-efficacy (Furio, Ascona, Guisola & Racliffe, 2000).

Researches in science education have revealed that students generally perform poorly in all science subject (Olorundare; Adeyegbe, and Usman, - Sirajo, Mari and Olorukooba 2013). Researches in science education have also shown that there is a relationship between formal reasoning ability and achievement in science (Mari, 2001).

Researchers have also shown that academic achievement in science is affected by a variety of factors including emotional-intelligence, reasoning ability, self-efficacy attitude and motivation. Numerous studies support a connection between emotional intelligence, and academic achievement, reasoning ability and academic achievement, and self-efficacy and academic achievement in science. Previous researches on the predictive effect of emotion-intelligence, and academic achievement, reasoning ability, academic achievement, self-efficacy and academic achievement has been carried out separately on the correlation of these variables on academic achievement and yielded mixed results. No study have investigated the combined correlation of emotional-intelligence, reasoning ability, self–efficacy, and academic achievement in chemistry. It is in line with this that the present study sought to investigate further the separate correlation of these variables and their combined interactive influence of these variables on academic achievement of SS II chemistry students. From the literature cited, most of the studies carried out used different study areas that are not from Nigeria. This study will therefore use different study area for a better understanding of the relationships among emotional intelligence,

reasoning ability self-efficacy and achievement in chemistry among senior secondary II (SS I) school students in Zonkwa Education Zone, Kaduna State-Nigeria.

### **Objectives of the Study**

The objectives of this study were formulated as follows:

1. examined the relationship if any among the mean score of students in emotional-intelligence, reasoning ability and self-efficacy and academic achievement of SS II students' in chemistry.
2. determined the relationship if any among the mean score of male students in emotional-intelligence, reasoning ability, self efficacy and academic achievement of SS II male students in chemistry.
3. investigated the relationship if any among the mean score of female students in emotional-intelligence, reasoning ability, self efficacy and academic achievement of SS II female students in chemistry.
4. determined the difference in the mean score of male and female students in emotional-intelligence, reasoning ability, self efficacy and academic achievement between SS II male and female students in chemistry.

### **Research Questions**

Specifically, this study addressed the following questions:

- i. What is the mean score of students in emotional-intelligence, reasoning ability, self-efficacy and academic achievement?
- ii. What is the mean score of male students in emotional-intelligence, reasoning ability, self efficacy and academic achievement?
- iii. What is the mean score of female students in emotional-intelligence, reasoning ability, self efficacy and academic achievement?
- iv. What is the difference between the mean score of male and female students in emotional-intelligence, reasoning ability, self efficacy and academic achievement?

### **Null Hypotheses**

To guide the study the following null hypotheses were tested at  $\leq 0.05$  level of significance:

H<sub>01</sub>: There is no significant relationship among the mean score of students in emotional-intelligence, reasoning ability and self-efficacy and academic achievement.

H0<sub>2</sub>: There is no significant relationship among the mean score of male students in emotional-intelligence, reasoning ability, self efficacy and academic achievement?

H0<sub>3</sub>: There is no significant relationship among the mean score of female students in emotional-intelligence, reasoning ability, self efficacy and academic achievement.

H0<sub>4</sub>: There is no significant difference in the mean score in emotional-intelligence, reasoning ability, self efficacy and academic achievement scores between male and female students in chemistry.

### **Methodology**

This study, employed correlational survey design. Correlation research involved the collection of data in order to determine whether and to what degree a relationship exists between two or more quantifiable variables. This research design is chosen because the study is interested in finding the relationship between the variables and in observing what has happened to the sample subjects without any attempt to control or manipulate them. The population of the study comprises of all public co-educational senior secondary school SS II students offering chemistry in Zonkwa Education Zone. The schools are fifteen in number, with students population of 413 (246 males and 167 females) of average age of 17 years, with five (5) urban and ten (10) rural schools. Six schools were selected from the fifteen schools in Zonkwa zone that formed the sample of the study, by simple random sampling technique using draw-from-the-hat method. According to William (2005) random sampling is a simple procedure which assures that each element in a population has equal chance of being selected. This was done by putting the names of all the schools of the population inside a container, shaken and then the six schools were picked one at a time without replacement. All the chemistry students in the sampled schools were used for the study (students in an intact class). The total numbers of students total of 152; (89 male and 63 female students). Four Instruments were used for data collection, which include; Trait Emotional Intelligence Questionnaire (TEIQue), Group Assessment of Logical Thinking (GALT), Chemistry Self-efficacy Instrument (CSI) and Chemistry Achievement Score (CAS). The instruments were validated and pilot tested at 0.80, 0.85, 0.75 and 0.87 reliability coefficient respectively. Descriptive statistical of means and standard deviations were used to answer research question one, two and three while mean ranks were used to answer research question four, and Pearson correlation coefficient was used to test the relationship. Inferential statistic of

Pearson correlation was used to answer null hypotheses one, two, and three. Inferential statistical Analysis of Variance MANOVA was used to answer null hypotheses four.

## Results

### Null Hypothesis One

There is no significant relationship among the mean score of students in emotional-intelligence, reasoning ability, self efficacy and academic achievement.

**Table 6: Summary of Pearson Correlation on Emotional-intelligence, Reasoning Ability, Self-efficacy and Academic Achievement of Students' in Chemistry**

Variable	N	EI	RA	SE	CAT	Mean	SD
EI	152	..	.698**	.728**	.803**	130.18	32.401
RA	152	..	..	.659**	.797**	4.53	1.675
SE	152	..	..	..	.851**	34.32	9.657
CAS	152	..	..	..	..	47.95	8.432

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 6 shows that the six pairs of variables were significantly correlated. The strongest positive correlation, which would be considered a large effect size, was between self efficacy and Chemistry Achievement Test scores,  $r(150)=0.851$ ,  $p<0.05$ . This means that students who had relatively high scores in self efficacy were likely to have high scores in Chemistry Achievement Test. The least positive correlation was between reasoning ability and chemistry achievement test scores ( $r=0.659$ ,  $p<0.05$ ). All the relationships had a large effect size according to Cohen (1988). There was significant relationship between the mean emotional-intelligence, reasoning ability, self efficacy and academic achievement scores of SS II students in chemistry. Therefore, the null hypothesis that stated no significant relationship was rejected.

### Null Hypothesis Two

There is no significant relationship among the mean score of male students in emotional-intelligence, reasoning ability, self efficacy and academic achievement.

**Table 7: Summary of Pearson Correlation on Emotional-intelligence, Reasoning Ability, Self- efficacy and Academic Achievement of Male Students**

	N	CAT	EI	RA	SE	Mean	Std. Deviation
CAT	89	..	.804**	.800**	.813**	47.49	8.301
EI	89	..	..	.701**	.682**	129.60	34.121
RA	89	..	..	..	.614**	4.45	1.752

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SE	89	..	..	..	..	33.67	9.546
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\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 7 shows that the six pairs of variables were significantly correlated. The strongest positive correlation, which would be considered a large effect size, was between self efficacy and Chemistry Achievement Test scores, ( $r=0.813$ ,  $p<0.05$ ). This means that students who had relatively high scores in self efficacy were likely to have high scores in Chemistry Achievement Test. The least positive correlation was between reasoning ability and Chemistry Achievement Test scores ( $r=0.614$ ,  $p<0.05$ ). All the relationships had a large effect size according to Cohen (1988). There was significant relationship between the mean emotional-intelligence, reasoning ability, self efficacy and academic achievement scores of SS II male students in chemistry. Therefore, the null hypothesis that stated no significant relationship was rejected.

### Null Hypothesis Three

There is no significant difference in the mean score in emotional-intelligence, reasoning ability, self-efficacy and academic achievement scores between male and female students in chemistry.

**Table 8: Summary of Pearson Correlation on Emotional-intelligence, Reasoning Ability, Self -efficacy and Academic Achievement of Female Students**

	N	CAT	EI	RA	SE	Mean	Std. Deviation
CAT	63	..	.810**	.796**	.899**	48.60	8.637
EI	63	..	..	.693**	.807**	131.00	30.054
RA	63	..	..	..	.728**	4.63	1.569
SE	63	..	..	..	..	35.24	9.816

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 8 shows that the six pairs of variables were significantly correlated. The strongest positive correlation, which would be considered a large effect size, was between self efficacy and Chemistry Achievement Test scores, ( $r=0.899$ ,  $p<0.05$ ). This means that students who had relatively high scores in self efficacy were likely to have high scores in Chemistry Achievement Test. The least positive correlation was between reasoning ability and chemistry achievement scores ( $r=0.693$ ,  $p<0.05$ ). All the relationships had a large effect size according to Cohen (1988). There was significant relationship between the mean emotional-intelligence, reasoning ability, self-efficacy and academic achievement scores of SS II female students in chemistry. Therefore, the null hypothesis that stated no significant relationship was rejected.

**Null Hypothesis Four**

There is no significant difference in the mean score of male and female students in emotional-intelligence, reasoning ability, self-efficacy and academic achievement.

To test this null hypothesis, an inferential statistic of one-way MANOVA was used.

**Table 9: Summary of MANOVA of Academic Achievement in Chemistry by Gender**

Statistics	Value	F	Hypothesis df	Error df	p
Pillai's Trace	.010	.380 <sup>a</sup>	4.000	147.000	.822
Wilks' Lambda	.990	.380 <sup>a</sup>	4.000	147.000	.822
Hotelling's Trace	.010	.380 <sup>a</sup>	4.000	147.000	.822
Roy's Largest Root	.010	.380 <sup>a</sup>	4.000	147.000	.822

a. Exact statistic

b. Design: Intercept + sex

A one-way MANOVA was calculated examining the effect of gender on emotional-intelligence, reasoning ability, self-efficacy and academic achievement scores. No significant effect was found ((Lambda(4,147)= .380,  $p > .05$ ), the null hypothesis which stated no significant difference was retained. None of emotional-intelligence, reasoning ability, self efficacy and academic achievement was influenced by gender. Therefore, there is no significant difference in the mean score of male and female students in emotional-intelligence, reasoning ability, self efficacy and academic achievement. There is no significant difference between the mean emotional-intelligence, reasoning ability, self efficacy and academic achievement scores of male and female SS II students in chemistry.

**Summary of Findings**

The summary of findings of the study includes the following:

- i. There was significant relationship between the mean emotional-intelligence, reasoning ability, self-efficacy and academic achievement scores of SS II students in chemistry. The strongest positive correlation was between self-efficacy and Chemistry Achievement Test scores. The least positive correlation was between reasoning ability and Chemistry Achievement Test score.
- ii. There was significant relationship between the mean emotional – intelligence, reasoning ability, self – efficacy and academic achievement scores of male SS II students in chemistry. The strongest positive correlation was between self-efficacy and chemistry

- achievement test scores and the least positive correlation was between reasoning ability and chemistry achievement test scores.
- iii. There was significant relationship between the mean emotional – intelligence, reasoning ability, self-efficacy and academic achievement score of female SS II students in chemistry. The strongest positive correlations was between self – efficacy and chemistry achievement test score and the least positive correlation was between reasoning ability and chemistry achievement test scores.
  - iv. There was no significant difference between the mean chemistry achievement scores; mean emotional intelligence scores; mean reasoning ability scores and mean self-efficacy scores of male and female SSII students in chemistry.

### **Discussion of Findings**

From the results in Table 6, it was found that there was significant relationship among emotional-intelligence, reasoning ability, self-efficacy and achievement in chemistry. The strongest correlation was between self-efficacy and achievement in chemistry and the least correlation was between reasoning ability and achievement in chemistry.

This findings agrees with that of Mayer, Caruso and Salovey, (2000); Nada, (2000); Habibah, (2007); Rahil (2008); Svetlana, (2008); and Azuka, (2012) who found a positive significant relationship between emotional-intelligence and academic achievement. This finding further reveals that people with high emotional-intelligence performed better than those with low emotional – intelligence. This findings also agrees with that of Sungur (2001), Tekkaya and Yenilmez, (2006), Nasir and Mansur (2010), Oloyede (2012), Sirajo, Mari and Olorukooba (2012), Nnorom (2013) and Bhat (2016) who also found a positive significant relationship between reasoning ability and academic achievement. This shows that formal reasoning ability is a strong predictor for the achievement in chemistry. Many chemistry problems required application of chemical principles and functional relationship among concepts. This implication requires the ability to apply formal reasoning and critical thinking in order to be successful in them.

Heron (1975) had suggested that chemistry courses were generally taught at a level of abstraction requiring a formal thought and critical thinking before it can be comprehended. Similarly Bandura (1997), Britner (2008), Pajares (2000), Kiran and Sungut (2011) and Baanu, Oyelekan and Olorundare (2016) who have affirmed the relationship between self-efficacy and students

achievement. Therefore, this finding further revealed that people with high assurance of their capabilities (positive efficacy), approach difficult task as challenges which eventually result in better performance in that given tasks. These explain why there is a positive relationship between self-efficacy and achievement in chemistry. Similarly the more efficacious student's achieve greater level of success, where as the students lower in self – efficacy experience more failures. These outcomes then foster student's subsequent self-efficacy beliefs, enhancing successful students self-efficacy and diminishing the self-efficacy of students who gave up easily and thereby failed.

From the result in Table 7, it was found that there was significant relationship among emotional – intelligence, reasoning ability, self – efficacy and achievement in chemistry of male SS II students in chemistry. The strongest correlation was between self – efficacy and achievement in chemistry and the least correlation was between reasoning ability and achievement in chemistry. This findings agrees with that of Mayer, Caruso and Salovey, (2000); Nada, (2000); Habibah, (2007); Rahil (2008); Svetlana, (2008); and Azuka, (2012) who found a positive significant relationship between emotional-intelligence and academic achievement. This finding further reveals that people with high emotional-intelligence performed better than those with low emotional – intelligence. This findings also agrees with that of Sungur (2001), Tekkaya and Yenilmez, (2006), Nasir and Mansur (2010), Oloyede (2012), Sirajo, Mari and Olorukooba (2012), Nnorom (2013) and Bhat (2016) who also found a positive significant relationship between reasoning ability and academic achievement. This shows that formal reasoning ability is a strong predictor for the achievement in chemistry.

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chemistry. Similarly the more efficacious student's achieve greater level of success, where as the students lower in self – efficacy experience more failures. These outcomes then foster student's subsequent self-efficacy beliefs, enhancing successful students self-efficacy and diminishing the self-efficacy of students who gave up easily and thereby failed.

From the results in Table 8, it was found that there was significant relationship among emotional – intelligence, reasoning ability, self – efficacy and achievement in chemistry of female SSII students in chemistry. The strongest correlation was between self – efficacy and academic achievement in chemistry and the least correlation was between reasoning ability and achievement in chemistry.

This findings agrees with that of Mayer, Caruso and Salovey, (2000); Nada, (2000); Habibah, (2007); Rahil (2008); Svetlana, (2008); and Azuka, (2012) who found a positive significant relationship between emotional-intelligence and academic achievement. This finding further reveals that people with high emotional-intelligence performed better than those with low emotional – intelligence. This findings also agrees with that of Sungur (2001), Tekkaya and Yenilmez, (2006), Nasir and Mansur (2010), Oloyede (2012), Sirajo, Mari and Olorukooba (2012), Nnorom (2013) and Bhat (2016) who also found a positive significant relationship between reasoning ability and academic achievement. This shows that formal reasoning ability is a strong predictor for the achievement in chemistry.

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subsequent self-efficacy beliefs, enhancing successful students self-efficacy and diminishing the self-efficacy of students who gave up easily and thereby failed.

From Table 9 it was found that there was no significant difference between the mean academic achievement, emotional-intelligence, reasoning ability and self-efficacy of male and female SS II students in chemistry.

This findings agrees with that of Omoniyi (2006), Amelink (2009), Afuwape (2011) and Oludipe's (2012) who reported that there was no significant difference in science performances between male and female students. The findings disagrees with that of Amunga, Amadato and Musera (2011), Obrentz (2012), Ezeudo and Obi – Theresa (2013) and Tenaco whose findings showed that male students are better performers than female in chemistry; Cumberbatch (1993), Kutnick (2000), Cheeseman, Simpson and Wint (2006) and Fayombo (2010) found out that there was significant gender difference in academic achievement in favour of the female. This shows that there are gender differences and similarities in academic achievement at different levels of education around the globe. Also this finding agrees with that of Goleman (1998) who asserted that no gender differences in emotional-intelligence, exist, admitting that while men and women may have different profiles of strength and weakness in different areas of emotional-intelligence, their overall levels of emotional-intelligence are equivalent. However, studies by Mayer and Geher (1996), Mayer, Caruso and Salovey (1999), Mandell and Pherwani, Brackett and Mayer (2003), found that females scored higher than males on emotional-intelligence. Jordan (2010) who indicated that gender differences were particularly pronounced for science for which stronger relationships were observed all emotional-intelligence components for males. Competing evidence exists surrounding whether or not males and females differ significantly in general levels of emotional-intelligence. Perhaps gender differences exist in emotional-intelligence only when one defines emotional-intelligence in purely cognitive manner rather through a mixed perspective. It could also be the case that gender differences do exist but measurement artifacts such as over – estimation of ability on the part of males are more likely to occur with self-report measures.

More research is required to determine whether or not gender differences do exist on emotional-intelligence. Also this study agrees with Shemesh in Mari (2001), Mani (2006) Sadket (2012), Ajawale (1999), Sadket and Sadker (1985) revealed that there was no significant difference in the performance of the male and female student. It disagrees with Graybill (1975), Ajagun

(1998) who revealed the superiority of girls over boys. Also Graybill (1975), Good (1977) and Howe and Shayer (1981) who demonstrated that boys are superior to girls in their level of performing piagetian like formal reasoning tasks. Also this study agrees with Wigfield, Eccles, Maclver, Reuman and Midgley (1991), Britner (2002), who observed that in the area of mathematics, boys and girls reported equal confidence during the elementary year. Ruvikumar and Manimozh (2011) reported that the self-efficacy of boys and girls is almost equal among the biology students. Kirna and Sungur (2012), establish that no gender difference was found concerning science self-efficacy. Also this study disagrees with Pajera and Miller (1994), Debacker and Nelson (2000), Calvallo, Rozman, Larebee and Ishikawa (2001), Louis and Mistela (2012) who found significant gender difference with male students. Student began the course with significantly higher self-efficacy and ended the course also with higher self-efficacy. Also disagrees with Britner and Pajares (2001), Britner and Pajares (2006), who revealed that girls reported stronger science self-efficacy than did boys.

### **Conclusion**

- i. There was positive correlation among emotional-intelligence, reasoning ability, self-efficacy and achievement in chemistry of SS II chemistry students and the strongest correlation was between self-efficacy and academic achievement while the least positive correlation was between reasoning ability and academic achievement.
- ii. Student's emotional-intelligence, reasoning ability and self-efficacy are predictors of achievement in chemistry. Self-efficacy being the strongest and reasoning ability being the least. That is students with high scores in emotional-intelligence, reasoning ability and self-efficacy seem to perform better than those with low emotional intelligence, reasoning ability and self-efficacy.
- iii. There was positive correlation among emotional – intelligence, reasoning ability, self – efficacy and academic achievement in chemistry of SS II male students and the strongest correlation was between self – efficacy and academic achievement while the least positive correlation was between reasoning ability and academic achievement.
- iv. There was positive correlative among emotional – intelligence, reasoning ability, self – efficacy and achievement in chemistry of SS II female students and the strongest correlation was between self – efficacy and academic achievement while the least positive correlation was between reasoning ability and academic achievement.

- v. Male and female students emotional – intelligence, reasoning ability and self – efficacy are predictors of achievement in chemistry. With self – efficacy being the strongest and reasoning ability had been the least. That male and female students with high scores in emotional – intelligence, reasoning ability and self – efficacy seem to perform better than those with low emotional – intelligence, reasoning ability and self – efficacy.
- vi. There was no difference in male and female achievement in chemistry emotional-intelligence, reasoning ability and self-efficacy. That is both male and female students perform equally.

Finally, the overall result of this study revealed that there exist a positive relationship among students, emotional-intelligence, reasoning ability, self-efficacy and achievement in chemistry and all the three variables can be used to predict students academic achievement in chemistry for both male and female. It was also revealed that there is no significant difference between the male and female students' achievement in chemistry emotional-intelligence, reasoning ability and self-efficacy.

### **Recommendations**

Based on the findings of this study the following recommendations are made;

- i. It was observed that emotional-intelligence, reasoning ability and self-efficacy correlated well with achievement in chemistry. Therefore science teachers should encourage their students to develop positive emotional-intelligence, strong reasoning ability and self-efficacy towards science so as to perform better in natural science.
- ii. Chemistry teachers should acknowledge the relevance of emotional – intelligence, self – efficacy a significant psychosocial factor in chemical education.
- iii. The emotion and feelings of students in terms of stress mood, and adaptability, intrapersonal and interpersonal psychological reactions in the chemistry classroom setting should be identified and understood by the teachers.
- iv. As teachers plan chemistry lessons, tests and examinations the emotional understanding, skills and capabilities, reasoning ability and self – efficacy of the students should be put into consideration.
- v. Teachers should initiate classroom practice that aid student to understand and manage that emotional – intelligence, reasoning ability and self – efficacy in chemistry learning situations.

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**ASSESSMENT OF STUDENTS' ABERRANT BEHAVIOR AND TEACHERS' MODIFICATION STRATEGIES IN BAMAINA GIFTED ACADEMY, JIGAWA STATE BY**

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**ABSTRACT**

*This Study investigated the prevalence of aberrant behavior exhibited by gifted students and modification strategies employed by their teachers in Bamaina academy for the gifted in Jigawa State. The study adopted descriptive research survey design. The populations of the study were 356 and the sample size was 64, the study used purposive sampling techniques. Two (2) identification materials are: (1) Behavioural Characteristics Checklist for Gifted Students (BCCGS), and (2) Students' Aberrant Behavior Nomination Form (SABNF) with one (1) material for data collection: Teachers' Modification Strategies Questionnaire (TMSQ) were used as data collection instruments. Data collected were analyzed and presented using frequency & percentage counts, mean score, weighted mean score, standard deviation, pie chart, and bar chart. These statistics were determined using Statistical Packages for Social Sciences (SPSS) version 21 and Microsoft Excel (version 2010). Results show that, majority of students under study scored 5 and above average student moderately exhibits aberrant behaviors and these aberrant behaviors exhibited are: frequently observed fit of rage, wandering around, loud or disruptive, self-injury, aggression, and tantrums. It was also found that majority of the teachers used games strategies, motivate students to be friendly with one another and also used teaching strategy to correct the aberrant behavior of the students in Bamaina secondary school. This further implies that teaching strategy is not use frequently by teachers in Bamaina secondary school as shown in table 4 above. The study recommended that educational stakeholders in Jigawa state should regularly organize seminars and workshops on psychological/behavioral strategies for both teachers and administrators of gifted schools. Administrators of gifted schools should use creative means of orienting parents on how to modify student's aberrant behaviors while at home. Finally, gifted students should be assigned with more of role-playing activities such as behavioral quiz and debates among them.*

**Keywords:** *Aberrant Behaviour, Modification Strategies, Gifted*

### **Background to the Study**

The development of any nation depends on the quality of its citizens' educational attainment. If the education is qualitative, and the citizen has high performance then the society is bound to develop, through utilization of its gifted human and materials resource available for development. The National Policy on Education (2004 revised) devoted Section 10 to special education to cater for the following: (a) the special need persons; (b) the disadvantage group; and (c) gifted and talented children and persons.

Globally, the scope and purpose of gifted education have undergone a number of significant changes over the past two decades. The criteria governing the identification and labeling of gifted, have evolved according to new theories about the nature of intelligence. Educational reform has also had an impact, as schools strive to raise standards and expectations for all students. Charges of elitism and discrimination have forced gifted specialists and advocates to defend their programmes. At the same time, such charges have inspired schools to examine the methods they use to identify gifted students potentially opening up opportunities to a broader spectrum of students (Stepanek, 1999).

Unfortunately, many educational traditions make it difficult to address student differences. Teachers, students, and parents share an image of what teaching is supposed to look like: The teacher presents the lessons to the whole class and all students complete the same assignments at the same time. Many educators believe that this has seldom been the best way to promote learning. It has become increasingly ineffective as classrooms become more inclusive and diverse. Consequently, strategies for differentiating instruction are an important part of every teacher's repertoire. It is not a matter of giving gifted students more attention or better resources, only of meeting all students' unique learning needs, while neglecting the need of the gifted.

Gifted and talented students are identified as those learners with outstanding ability and are capable of high performance. They require differentiated educational programs and services beyond those normally provided by the regular school programs (Heward, 2006). The gifted and talented are those exceptional persons who were endowed or blessed with high potentials, trend or characteristics that include: sound reasoning, (good thinker), learns rapidly, extensive vocabulary, an excellent memory, long attention span, sensitivity, shows compassion,

perfectionistic, intense, morally sensitive etc. Columbus Group (2009) defined gifted as “a synchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. Even gifted persons are naturally endowed with special learning abilities; they need special attention and environment that match their abilities in order to develop their full potentials. Where such attention and facilities are lacking the gifted person cannot develop their potential and that will be a waste for the society.

Behaviour on the other hand can be defined as the way in which an individual behaves or acts. It is the way an individual conducts herself/himself. Behaviour should be viewed in reference to a phenomenon, an object or person. It can be seen in reference to society norms, or the way in which one treats others or handles objects. Behaviour, therefore, is the way an individual acts towards people, society or objects. It can be either bad or good. It can be normal or abnormal according to society norms. Society will always try to correct bad behaviour and try to bring abnormal behaviour back to normal (UNESCO, 2000).

### **Objectives of the Study**

This study investigated the prevalence of aberrant behavior exhibited by students, and modification strategies employed by teachers in Bamaina academy school for gifted in Jigawa State. The specific objectives of the study are:

- 1) To find out the incidence rate of aberrant behaviour among gifted students in Bamaina Gifted academy in Jigawa State.
- 2) To find out the type of aberrant behaviour exhibited by the gifted students in Bamaina Gifted academy.
- 3) To find out the strategies employed by teachers in modifying the aberrant behaviour among gifted students in Bamaina.

### **Research Questions**

In line with the above research objectives, the following research question raised to guide this study:

1. What is the incidence rate of aberrant behaviours among gifted student in Bamaina Academy for the Gifted in Jigawa State?

2. What are the types of aberrant behaviour exhibited by the gifted students?
3. What are the strategies used by teachers in modifying aberrant behavior among gifted students?

**Methodology**

This study adopted descriptive research, survey design as a guide towards solving its research problems as well as achieving its objectives. Since this study investigated the existing aberrant behavior of Bamaina gifted students and their teachers, descriptive survey design is one of the most suitable for this type of research because, it will guide this study in assessing the nature of the existing condition about student’s aberrant behaviors.

**Results:**

**Research Question One:** What are the incidence rates of aberrant behaviours among gifted students in Baiman School for the gifted in Jigawa State?

**Table .1: Incidence rates of aberrant behavior among gifted students in Baiman School for the gifted in Jigawa State.**

Name of school	Total number of gifted students		Total number of gifted students exhibits aberrant behavior	Percentages
<b>Baiman gifted academy in Jigawa State</b>	473	primary section	20	4.23%
		secondary section	28	5.92%
Total			48	10.15%

The result in the above table indicated the incidence rates of aberrant behavior among gifted students in Baiman gifted academy, Jigawa State. Primary pupils stand at 20 which is equivalent to 4.23% while at secondary section the number of students was 28 which is equivalent to 5.92%. The total of incident rates of students that exhibited aberrant behavior in both primary and secondary section was 48 out of 473 students which is equivalent to 10.15%.

Research Question Two: what are the types of aberrant behaviour exhibited by students in Biamana gifted academy in Jigawa State?

**Table: 2 types of aberrant behaviour exhibited by students in Biamana gifted academy in Jigawa State.**

S/N	Type of aberrant behavior	Agree frequency percentage	Disagree frequency percentage	Undecided frequency percentage
1.	Irritability	6 37.5%	10 62.5%	0 0%
2.	Agitation crying	7 43.75%	7 43.75%	2 12.5%
3.	Lethargy	9 56.25%	5 31.25%	2 12.5%
4.	Social withdrawal	12 75%	4 25%	0 0%
5.	Stereotypic behavior	7 43.75%	9 56.25%	0 0%
6.	Boredom	11 68.75%	5 31.25%	0 0%
7.	Non-compliance	5 31.25%	11 68.75%	0 0%
8.	Irresponsible	10 62.5%	6 37.5%	0 0%

Table 2 above analyses the types of aberrant behaviour exhibited by students in Biamana gifted academy in Jigawa State. 6 out of 16 respondents in the first row agreed that irritability is a common type of aberrant behaviour exhibited by some gifted students in Baimana School while 10 disagreed and there were no undecided among the respondents which corresponds to 37.5% and 62.5% respectively. In the same vein, 43.75% in the second row agreed that agitation crying is also found among some gifted students in Baimana School, while 43.75% disagreed and 12.5% were undecided. In row three, 9 respondents agreed that lethargy is the common type of aberrant behaviour among some gifted students in Baimana School while 5 disagreed and 2 were undecided. The percentages are 56.25%, 31.25% and 12.5% respectively.

Moreover, in row four while 12 respondents agreed that social withdrawal is the type of aberrant behaviour exhibited by gifted students in Bamaina School, 4 disagreed and 0 were undecided and that gives 75% and 25% respectively. 7 respondents agreed that stereotypic behaviour is mostly found, 9 disagreed and 0 were undecided which corresponds to 43.75% and 56.25% respectively.

In a related development 68.75% agreed that boredom is also a type of aberrant behaviour commonly found among some gifted student in Bamaina School for the gifted while 13.25% disagreed which tallies with 11 and 5 frequencies in row six in table 2. On non-compliance as type of aberrant behaviour, 5 respondents agreed while 11 disagreed and 31.25 and 68.75% respectively. Finally, 10 respondents agreed that irresponsible is the most common type of aberrant behaviour among gifted student in Bamaina School while 6 disagree. The percentages are 62.5% and 37.5% respectively.

**Research Questions Three:** what are the strategies employed by teachers in modifying the behaviour among gifted students in Bamaina gifted academy Jigawa State?

**Table 3: Strategies employed by teachers for modifying aberrant behaviours**

S/ N	strategies employed by teachers in modifying the aberrant behavior	Agree frequency percentage	Disagreed frequency percentage	Undecided frequency percentage
1	Games	12 75%	4 25%	0 0%
2	Preventive strategies	10 62.5%	6 37.5%	0 0%
3	Teaching strategy	11 68.75%	6 31.25%	0 0%

From the table above on the strategies used by teachers in modifying aberrant behaviour among the gifted students 75% of the respondents agreed that games were employed as a strategy for modifying aberrant behaviour while 25% disagreed and 0% were undecided. This also corresponds to 12, and 4 frequencies in the same row respectively. Furthermore, 10 respondents agreed that preventive strategies were also applied in modifying the aberrant behavior while 6 respondents disagreed and 0 were undecided, which is 62.5% and 37.5% respectively. Finally, 68.75% agreed on teaching strategies while 31.25% disagreed and 0 were undecided. This gives 11 and 6 number of respondents respectively.

**Summary of findings**

1. The findings of this research on the rate of incidence of aberrant behavior among gifted students in Bamaina Gifted Academy in Jigawa State were 48 out of 473, this equivalent to 10.15%.

2. The findings further shows that Lethargy, Social withdrawal boredom and Irresponsible were the most commonly type of aberrant behavior showed by some gifted students in Bamaina School for the gift. This is shown in table 2 above.

3. It further revealed that majority of the teachers used games strategies, motivate students to be friendly with one another and also used teaching strategy to correct the aberrant behavior of the students in Bamaina secondary school. This further implies that teaching strategy is not use frequently by teachers in Bamaina secondary school as shown in table 4 above.

### **Discussion of Findings**

The result in research question 1 indicated that quite sure there were aberrant Behaviour among the Gifted Students in Bamaina School for the gifted in Birnin Kudu, Jigawa State. The findings indicated that 48 students (10.15%.) were found exhibiting different types of aberrant behaviour. The above finding agreed with the finding of Haruna (2016) who investigated the impact of indiscipline on the management of Secondary Schools in Kogi-East senatorial district. The findings of the study indicated that truancy, stealing, examination malpractice, sexual immorality and drug abuse have significant effects on the management of secondary schools students.

Regarding the types of aberrant behaviour exhibited by students in Biamana School for the gifted in Jigawa State the findings shows that Lethargy, Social withdrawal Hyperactivity and Inappropriate speech were the most commonly type of aberrant behavior shown by some gifted students in Bamaina School for the gift. The finding confirmed that there are some gifted students that exhibits aberrant behavior. The finding is in line with finding of Hollyhand (2013) investigated how the characteristics and/or behaviors' of student's impact teacher nominations for gifted programs. Participants in this study were 633 elementary education teachers from two mid-size school districts in the Southeastern United States. Each participant was randomly assigned one of 16 case vignettes. Eight of the vignettes depicted a student displaying positive gifted characteristics, while the other eight depicted a student displaying negative gifted characteristics. The other student characteristics of gender, ethnicity, and SES were interchangeable among the 16 vignettes. The results of this study show that the student's behavior does play a significant role in the teacher's nomination decision for the gifted program. Results indicated students displaying positive gifted characteristics were three times more likely to be nominated to a gifted program than a student exhibiting negative gifted characteristics.

When stratified by various student characteristics (i.e. gender, ethnicity, and SES), teacher nominations were significantly associated with student behavior, with students exhibiting positive gifted characteristics more likely to be nominated than those displaying negative gifted characteristics.

Research Question Three on the type of strategies employed by teachers in modifying the behaviour among gifted students in Bamaina gifted academy in Jigawa State revealed that majority of the teachers used games, motivation strategy and also used teaching strategy to correct the aberrant behavior of the students in Bamaina secondary school. The findings concurred with that of Awang, Ahmad, Abdul Wahab and Mamat (2013) who investigated the ways strategies are used by a teacher in encouraging pupil learning behaviour. Five teaching strategies were identified and observed in this study: encouragement, praising, guidance, positive reinforcement and ignorance. The first ten minutes (induction-set phase) of three lessons organised by one female teacher were digitally recorded and independently analysed. Data analysis focuses on the effect of teaching strategies towards pupil learning behaviour. Learning behaviour observed includes pupils' participation in lesson activities, proactive action initiated by pupils, answering a question and facilitating group works. Overall results suggest that the effectiveness of induction-set is dependent on teacher's creativity and pedagogical content knowledge. As one strategy does not fit all situations, it is vital for the teacher to initiate creative lesson plans to attract pupils' attention. Results also suggest that the display of positive actions toward disruptive behaviour as well as the lack of praises given to pupils increased problematic behaviour in classroom. This study provides insight to effective teaching practice for promoting learning behaviour in classroom contexts. Implications towards teaching practices are discussed. Similarly, the result agreed with the findings of Sambu, Kalla and Njue (2014) who examined instructional strategies of teachers who use to educate learners who are gifted and talented in Primary schools in Wareng district, UasinGishu County, Kenya. Wareng district was purposively selected for the study because of its good performance in academics and sporting activities. The study adopted a mixed method approach and a descriptive survey research design. Ten schools were purposively sampled using criteria of performance status. Ten head teachers were purposively picked and ninety nine teachers were selected using simple random sampling technique to get a sample size of one hundred respondents. Qualitative and quantitative data were collected using interview guides and questionnaires for head teachers and teachers

respectively. Descriptive statistics using SPSS programme were used to analyzed quantitative data and presented in graphs, pie-charts, frequency tables and percentages while qualitative data were analysed according to the themes of the study. Both data were then triangulated to draw conclusions on the findings of the study. The study revealed that majority of teachers were conversant with various strategies of teaching the gifted and talented learners, however, they preferred using only one strategy that is, giving extra work, indicating a limitation on teacher's competence to meet the diverse needs of gifted and talented learners.

### **Recommendations**

The following recommendations are made based on the findings of the research:

1. Nongovernmental organizations should also take many more preventive measures such as awareness to both parents and gifted students about aberrant behavior; this will drastically reduce the recurrence of such unwanted behavior among gifted students.
2. Teachers should educate the students on the negative sides of aberrant behaviour so that the students can reduce its incidence.
3. Students should be allowed to engage in more friendly activities because these will further strengthen the unity and reduce the incidence of stereotype among them.

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**ASSESSMENT OF IMPACT OF SOCIAL MEDIA USAGE ON ACADEMIC PERFORMANCE OF UNDERGRADUATE STUDENTS IN YOBE STATE UNIVERSITY, DAMATURU, NIGERIA**

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**ABSTRACT**

*This paper examined the impact of social media on academic performance of undergraduate students of Yobe State University, Nigeria. Three objectives were raised; to determine the usage of Facebook on academic performance among undergraduate students of Yobe State University; to ascertain the usage of WhatsApp on academic performance among undergraduate students of Yobe State University; and to examine the usage of Tik tok on academic performance among undergraduate students of Yobe State University. Three research questions were formulated in line with the objectives of the study. Descriptive survey design was employed for the study. The population of the study consisted of all the undergraduate students of Yobe University, Damaturu. Random sampling techniques was employed in the selection of students across the faculties. 100 undergraduate students were randomly selected across the faculties. Self-structured questionnaire was used as the instrument for data collection. The analysis of data involved the use of descriptive statistics such as frequency and percentages. The findings of the study revealed that students' usage of whatsApp had negative impact on their academic performance and social media usage negatively impacted the academic performance of undergraduates. In line with the findings of this study, the following recommendations are made among others; Seminars and workshops should be organized by university authorities for the undergraduates on issues related to social media usage. This could help the undergraduates to reduce their high exposure to social media activities and concentrate more attention on their studies.*

**Key Words:** Social Media; Undergraduate; Academic Performance.

**Introduction**

In the modern era, social media has emerged as one of the most significant communication tools. However, social networking was created to facilitate connection between individuals, independent of their physical location. It allows users to share files, photos, videos, and other content with ease, as well as to write blogs, send messages, and have real-time chats. Because they make it so simple and successful to communicate with friends and coworkers, these

systems are known as social media platforms. Additionally, it makes the bonds between members of those systems stronger. When it comes to websites, Facebook, Twitter, and other platforms are popular. Direct social and media communication with others is possible through these websites and social forums. They are having a significant and significant impact on global decision-making in the areas of politics, economy, society, and education.

The simplicity, flexibility, utility, and increasingly widespread availability of social media are the main drivers propelling their popularity (Brown, 2010 and Schroeder, Minocha, & Schneider, 2010). There is a contention that, in the case of inadequate higher education, social technologies facilitate social constructivist learning strategies, which may enhance students' comprehension construction and foster student interaction (Ferdig, 2007, McLoughlin, 2008).

There are four main benefits of using social media in higher education, according to a number of overviews and opinions. These include building cooperative skills, strengthening relationships, raising learning motivation, and providing individualized course materials (Wheeler, Yeomans, & Wheeler, 2008, Rifkin, Longnecker, Leach, Davis, & Ortia, 2009). This indicates that social networking activities, especially those involving introverted students, have the potential to boost student involvement in class and to foster better student communication. Pupils who participate in online group learning can do so with little to no worry about having to ask questions before their classmates in person (Wheeler, Yeomans, & Wheeler, 2008).

Furthermore, according to Neal (2012), the word "social media" refers to the numerous user-friendly platforms like Facebook, YouTube, blogs, Twitter, and so on that anyone may use to communicate with others online. As a result, social media's quick and easy services allow us to quickly establish an online presence by creating accounts on Facebook and Twitter, which in turn allows us to quickly produce original material for the internet. In addition, academic achievement is defined as a student's capacity to learn and retain information as well as their ability to express it verbally or in writing, even under test conditions (Kpolovie, Joe, and Okoto, 2014).

### **Statement of the Problem**

The way individuals communicate on a daily basis has been greatly impacted by the rapid evolution of media technologies. It is impossible to overstate the extent to which today's kids are using social media. Social networking among students has grown in popularity over time. It is a means of establishing relationships with friends both within and outside of the classroom. One approach to make people feel like they belong to a community is through

social networking. Professors and economists are wondering if students' grades won't be impacted by how much time they spend on these sites because of their growing popularity. Positively or negatively affecting students' academic achievement. Concerns about pupils spending too much time on Facebook and other social media sites and not having enough time for study sessions are common among parents and guardians. While many students still use social media sites on a regular basis, parents are concerned about their children's excessive use of these platforms.

It is not uncommon to witness young adults chit-chatting in settings that are delicate and meticulously planned, such as churches, mosques, and lecture halls. Some of them get so carried away that they continue to chat while strolling down the main street. Youths no longer need to attend a cybercafé in order to send and receive messages, which has compounded the situation due to the development and distribution of equally advanced cellular phones. Visible friends have received less attention than invisible friends, which has an impact on significant endeavors like writing and studying. Many people who believe in the acquisition of information and skills are becoming concerned about this phenomena. In light of this, the aim of this research was to assess how Yobe State University, Damaturu undergraduate students use social media and to offer expert advice on how to improve their academic performance.

### **Objectives of the Study**

The following objectives guided the study:

1. To assess the Impact of Facebook Usage on Academic Performance among Undergraduate Students of Yobe State University.
2. To assess the Impact of WhatsApp Usage on Academic Performance among Undergraduate Students of Yobe State University.
3. To assess the impact of Tik tok Usage Academic Performance among Undergraduate Students of Yobe State University.

### **Research Questions**

The following research questions were asked for the study:

1. What are the impact of Facebook Usage on Academic Performance among Undergraduate Students of Yobe State University?
2. What are the impact of WhatsApp Usage on Academic Performance among Undergraduate Students of Yobe State University?

3. What are the impact of Tik tok Usage on Academic Performance among Undergraduate Students of Yobe State University?

**Methodology**

Descriptive survey design was employed for the study. The population of the study consisted of the undergraduate students from three faculties in the Yobe University, Damaturu. The sampling technique adopted for this study was simple random sampling technique were 100 students was randomly sampled from three faculties namely; faculty of Arts and Education; faculty of Law and faculty of Management Sciences in which each member of the sample is given an equal chance of being selected (Dada, 2016). The instrument used for data collection for the study was questionnaire for gathering the data. The content and face validity of the instrument was validated by experts from the Department of Education, Yobe State University, Damaturu. The reliability index was 0.79. The data collected were coded in SPSS version 22 and analysed using descriptive statistics with reference to devices such as tables, frequency counts and simple percentages. The study focused on three (3) social networks used frequently by students. The three social networks (Whatsapp, Facebook and Tik tok) were selected and used for the analysis based on the level of the usage.

**Research Question One: What is the Impact of Facebook Usage on Academic Performance among Undergraduate Students in Yobe State University?**

S/N	Item Statement	SA		A		SD		D	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1.	Facebook allows for easy sharing of learning materials among students.	25	25%	10	10%	50	50%	15	15%
2.	Using Facebook improves the Interaction with course mates and lecturers.	35	35%	20	20%	30	30%	15	15%
3.	Facebook reduces students' commitment to academic activities.	40	40%	30	30%	20	20%	10	10%
4.	Students spend more time using Facebook than Reading books.	35	35%	25	25%	15	15%	25	25%
5.	Students expose to Facebook have Negative impact on their academic performance.	43	43%	26	26%	16	16%	15	15%

Item 1 from the table sought to find out if Facebook allows for easy sharing of learning materials among students. 25 (25%) out of the 100 respondents strongly agreed, 10 (10%) agreed to the same assertion, on the other hand, 50 (50%) disagreed while 15 (15%) strongly disagreed.

Item 2 from the table sought to find out if Using Facebook improves the Interaction with course mates and lecturers. 35(35%) strongly agreed, 20 (20%) agreed, 30 (30%) disagreed while 15(15%) strongly disagreed with the assertion.

Item 3 sought to find out whether Facebook reduces students’ commitment to academic activities, 40(40%) strongly agreed, 30 (30%) agreed, 20(20%) disagreed while 10(10%) strongly disagreed.

Item 4 sought to ascertain if Students spend more time using Facebook than Reading books, majority of the respondents 35 (35%) strongly agreed, 25 (25%) agreed, 15 (15%) disagreed, while 25(25%) strongly disagreed to the item statement.

Item 5 sought to find out whether students who expose to Facebook have Negative impact on their academic performance, 43(43%) strongly agreed, 26(26%) agreed, 16(16%) disagreed, while 15(15%) strongly disagreed with the item statement.

Base on table 1, one could deduce that Facebook have impacted on student’s academic performance. Thus, Facebook could deter students from studying their books as they will glue themselves to it rather than their books.

**Research Question Two: What is the Impact of WhatsApp Usage on Academic Performance among Undergraduate Students in Yobe State University?**

S/N	Item Statement	SA		A		SD		D	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1.	Group discussion could be arranged With lecturers using WhatsApp.	37	37%	39	39%	18	18%	6	6%
2.	WhatsApp application reduces students’ Commitment to academic activities.	36	36%	33	33%	21	21%	10	10%
3.	WhatsApp facilitates the academic activities and coordinate with others.	27	27%	31	31%	22	22%	20	20%
4.	Students spend more time using WhatsApp than Reading their books.	44	44%	36	36%	11	11%	9	9%
5.	Students expose to WhatsApp have positive impact on their academic performance.	21	21%	19	19%	38	38%	22	22%

Item 1 from the table above sought to find out if Group discussion could be arranged With lecturers using WhatsApp. 37(37%) out of the 100 respondents strongly agreed, 39 (39%) agreed to the same assertion, on the other hand, 18(18%) disagreed while 6(6%) strongly disagreed.

Item 2 from the table sought to find out if WhatsApp application reduces students' Commitment to academic activities. 36(36%) strongly agreed, 33(33%) agreed, 21(21%) disagreed while 10(10%) strongly disagreed with the same assertion.

Item 3 sought to find out whether WhatsApp facilitates the academic activities and coordinate with others, 27(27%) strongly agreed, 31(31%) agreed, 22(22%) disagreed while 20(20%) strongly disagreed.

Item 4 sought to ascertain if Students spend more time using WhatsApp than Reading books, majority of the respondents 44 (44%) strongly agreed, 36(36%) agreed, 11 (11%) disagreed, while 9(9%) strongly disagreed on the item statement.

Item 5 sought to find out whether students who expose to WhatsApp have positive impact on academic performance, 21(21%) strongly agreed, 19(19%) agreed, 38(38%) disagreed, while 22(22%) strongly disagreed with the item statement.

Base on table 2, one could deduce that WhatsApp have impacted on student's academic performance. Thus, WhatsApp could deter students from studying their books as they would glue themselves to it rather than their books.

**Research Question Three: What is the Impact of Tik tok Usage on Academic Performance among Undergraduate Students in Yobe State University?**

S/N	Item Statement	SA		A		SD		D	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1.	Tik tok allows students to discuss academic issue beyond the classroom environment.	18	18%	11	11%	31	31%	40	40%
2.	Tik tok reduces students' Commitment to academic activities.	47	47%	33	33%	12	12%	8	8%
3.	Tik tok facilitate the academic activities and coordinate with others.	31	31%	14	14%	18	18%	12	12%
4.	Students spend more time using Tik tok than Reading their books.	45	45%	23	23%	21	21%	11	11%

5. Students expose to Tik tok have positive impact on their academic performance. 17 17% 21 21% 41 41% 21 21%

Item 1 from the table above sought to find out if Tik tok allows students to discuss academic issue beyond the classroom environment, 18(18%) out of the 100 respondents strongly agreed, 11(11%) agreed to the same assertion, on the other hand, 31(31%) disagreed while 40(40%) strongly disagreed.

Item 2 from the table sought to find out if Tik tok reduces students' Commitment to academic activities. 47(47%) strongly agreed, 33(33%) agreed, 12(12%) disagreed while 8(8%) strongly disagreed with the same assertion.

Item 3 sought to find out whether Tik tok facilitates the academic activities and coordinate with others, 31(31%) strongly agreed, 14(14%) agreed, 18(18%) disagreed while 12(12%) strongly disagreed.

Item 4 sought to ascertain if Students spend more time using Tik tok than Reading books, majority of the respondents 45 (45%) strongly agreed, 23(23%) agreed, 21(21%) disagreed, while 11(11%) strongly disagreed on the item statement.

Item 5 sought to find out whether students who expose to WhatsApp have positive impact on academic performance, 17(17%) strongly agreed, 21(21%) agreed, 41(41%) disagreed, while 21(21%) strongly disagreed with the item statement.

### **Discussion of the Findings**

The study assess the Impact of Facebook on Academic Performances among Undergraduate Students of Yobe State University. It was found out that students expose to whatsapp had negative impact on their academic performance. This finding is in line with Asemah and Edegoh (2013) finding which showed that students expose to social media had negative impact in their academic performance.

The study also assess the Impact of WhatsApp Usage on Academic Performances among Undergraduate Students of Yobe State University. The result showed that majority of respondents agreed that WhatsApp facilitates the academic activities and coordinate with others. This assertion is in line with the finding of Seyi, (2012) who noted that some students never stop pinging and going throughout lectures, which interferes with their ability to focus academically.

The finding also agrees with the studies conducted by Osharive (2015), Colak (2014), Casmilia, Sajoh and Dalhtu (2013) which showed that social media affected the grades and academic activities of the undergraduates. Many undergraduates dedicated so much time to

social media activities more than their studies. Their attention was diverted towards non-educational and inappropriate actions and distractions of social media usage and there were unable to attend lectures regularly and poorly contributed to class discussions, among others. Social media usage also made them perceived the school activities as being boring and uninteresting.

### **Conclusion**

The following conclusions are drawn from the study's findings and discussion. The use of social media negatively affects undergraduates' academic performance in terms of behavior, emotions, and cognition. A large number of undergraduates at Yobe State University used social media more frequently for purposes other than learning. This paper argues that undergraduates who spend more time on social media are more likely than those who don't to perform poorly on their academic pursuit. This is because undergraduates who spend a lot of time on chatting often experience misfortunes that could lead to poor academic performance.

### **Recommendations**

In line with the findings of this study, the following recommendations are made:

1. Seminars and workshops should be organized by university authorities for the undergraduates on issues related to social media usage that could enhance students' academic performance.
2. Universities should form social media clubs to assist in educating new students about the negative aspects of using social media.
3. Universities should encourage students on the positive aspects of social media that would enhance students' academic performance.

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## EFFECT OF COLLABORATIVE ACTIVITIES ON PERFORMANCE OF SECOND LANGUAGE LEARNERS IN READING COMPREHENSION IN UPPER BASIC SCHOOLS IN KADUNA STATE

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### ABSTRACT

*This study investigated the Effect of Collaborative Activities on the performance of second language learners in reading comprehension at the basic education level in Nigeria. The study employed quasi experimental design with a sample of forty (40) Junior Secondary II students from Kaduna North and South. Government Junior Secondary School Doka was used as the experimental group while Government Junior Secondary School Makera was used as the control group. Both groups were assessed after six weeks of teaching using two reading comprehension tests. Mean and standard deviation were used to answer the research question, while t-test was used to test the hypothesis at 0.05 level of significance. The finding revealed that, collaborative activities has significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria. Based on the finding of the study, the researchers recommended that, second language teachers should make use of collaborative teaching approach while teaching reading comprehension, since the approach (collaborative approach) has the potential of improving learners' performance.*

**Keywords:** Collaborative Activities, Second Language Learners, Reading, Comprehension

### Introduction

Studies such as Abdullahi and Yusuf, (2021) have attributed students' poor performance in reading, to lack of appropriate methods of teaching reading, among other factors. Afolayan and Adeleke, (2021) have equally asserted that the inability of students graduating from most Nigerian secondary schools unable to read in English have assumed such alarming proportion in the past decade that a study such as this becomes necessary. In today's complex society, reading is a critical skill for children's success both in and out of school. In the school setting, children are expected to read textbooks. Assignments are given to them on the assumption that they can obtain information from the printed page independently. Outside of school children still need good reading ability to cope with the challenges of their everyday living.

In view of all of the above, any effort made towards ensuring that children develop efficient reading skills is neither wasted nor misplaced. As a matter of fact, if children develop good reading skills and a love for reading, they have a key tool, which will help them continue learning and growing.

As learning to read is a continuous process, the conditions of instruction at the basic education level significantly affect the extent to which the learner will eventually attain the required level of literacy. It is at the basic education level that students are expected to develop some basic reading skills. This, however, is often not the case for second language learners in Nigeria. Most pupils, especially those about to enter JSS one, are deficient in basic reading skills. Some of them cannot even read a word of English at primary six, and there is ample evidence that a high proportion of pupils are at a stage when they need further developmental reading instruction. Unfortunately, at this level which is supposed to be the bedrock of all subsequent levels of education, there is no reading instruction, except for 'comprehension lessons' in their English classes as observed by Ahmed and Bello, (2021) which serve as a test of reading comprehension rather than reading instruction. Teachers at this basic foundation level unfortunately lack training in reading and reading instruction, (Yusuf & Dada, 2016).

Reading is largely taken for granted particularly at tertiary school level, and language teachers hardly think of it as a basic skill that requires the most careful attention. Yet if a child fails to master the skills of reading, the rest of the education is either a flat failure or only a limping success. Research figures are hardly needed to demonstrate that most primary and secondary school students in Nigeria cannot read with adequate comprehension. These inadequacies are clear in their inability to cope with the texts provided for them; they indicate their limitations by their failures in the final written examinations. Moreover, many of them are unable to read and therefore, cannot understand and complete application forms for further studies. In view of the absolutely indispensable role of reading in modern life and the fact that a civilized standard of living is not attainable without the ability to read, the need to undertake this study cannot be denied.

### **Review of Related Literature**

Studies in the first language such as Smith and Johnson, (2021) studied the influence of different factors on reading achievement and comprehension which revealed that the situation is not same in the second language situation. Factors, which have been found to be significant in the first language situation, may not necessarily account for reading

difficulties in a second language situation. For instance, many studies in the first language have emphasized the importance of home background, family size and parental concern for their children's progress in school.

In a second language situation (such as teaching English in Nigeria), there are additional factors such as cultural factors, which impede the learners' reading achievement. Olaofe (2013) identifies the reading problems of secondary school students as slow, poor comprehension, poor recall, inadequate vocabulary, and inadequate reading interest. Cross-cultural studies which have tried to compare the performance of Nigerian Students with that of their counterparts in developed countries depict a gloomy picture (Olaofe 2013, Ojo & Ibrahim, 2021). The influence of some of the factors may be greater in real terms today, given the condition of educational institutions in today's Nigeria. These factors include, according to Yusuf and Dada, (2016), lack of qualified teachers, poor classroom condition, lack of adequate materials, large class size and little or no encouragement from parents, home, teacher and peer group.

Most studies in reading comprehension so far conducted in Nigeria have concentrated on examining reading difficulty of students at the primary and junior secondary levels with focus on the texts being used. However, there are reasonable grounds to suspects that other non-text factors, such as pedagogical factors, affect reading comprehension as well. Literature search reveals that pedagogical factors have received little or no attention in Nigeria (Olaofe 2013, Ojo & Ibrahim, 2021). The absence of such crucial information constitutes a problem which has motivated the present study. The study is also based on the premise that the comprehension of a textbook depends on the interaction of a number of factors, which can be broadly categorized into four: socio-cultural, linguistic, psychological and pedagogical factors. The influence of these factors on the reader's comprehension especially in a second language situation is uncertain. There is, therefore, the need to ascertain the extent to which pedagogical factors influence reading comprehension.

Doherty and Pinal (2002) cited in Yusuf (2016) used standard performance to examine the influence of teachers' use of influence of Collaborative Activities (ICA) during language arts instruction on the metacognitive development of predominantly Latino English language learners (ELL) during class instruction, the teacher and a small group of students co-construct meaning from a text. The teacher is a full collaborator in the activity, modelling the use of effective reading comprehension strategies while assessment and assisting students' comprehension efforts. This study found the use of cognitive reading

strategies through teacher's use of Collaborative Activities facilitated students' comprehension. Collaborative Activities was unrelated to self-report of ineffective achievement gains on standardized comprehension achievement.

The focus of this study, therefore, is to determine the impact of influence of Collaborative Activities method on the performance of second language learners in reading comprehension at the basic education level in Nigeria. The basic education is the bedrock upon which the secondary and tertiary levels are dependent. If this foundation level is faulty, students are bound to have difficulty in comprehending texts at the secondary school level and even beyond tertiary institutions. To this end this study will focus on one out of the five pedagogic methods of the centre for Research on Education Diversity and Excellence (CREDE) based in the United States of America i.e Influence of collaborative Activities. These pedagogic methods have proved successful over several decades across grade levels, student populations and content areas. Doherty and Pinal 2002, cited in Yusuf (2016). This present sought to test one out of the five methods i.e Influence of Collaborative Activities to find out if it is likely to be effective in teaching reading comprehension to second language learners at the basic education level in Nigeria.

### **Objective of the Study**

The objective of the study is to:

1. Determine the effect of collaborative activities on the performance of second language learners in reading comprehension at the basic education level in Nigeria.

### **Research Question**

1. What is the effect of collaborative activities on the performance of second language learners in reading comprehension at the basic education level in Nigeria?

### **Hypothesis**

1. Collaborative activities has no significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria.

### **Methodology**

The study employed quasi-experimental design, subject of the study were forty (40) students of Junior Secondary II from Government Junior Secondary School (GJSS) Doka in Kaduna North and Government Junior Secondary School (GJSS) Makera in Kaduna South. Twenty (20) students from each school. The two schools were located far apart to minimise interaction. The two teachers who taught the classes were judged to be

comparable in teaching ability, on the basis of their equivalent qualification as Nigeria Certificate in Education (NCE) holders. Government Junior Secondary School, Doka was used as the experimental group while Government Junior Secondary School, Makera was used as the control school. The students in both schools were taught for six weeks. Two reading comprehension tests were administered to the students. The reading comprehension tests were taken from the students' text titled Junior Secondary English Project Book 2. The comprehension questions were designed by the researchers so as to include literal questions, inferential questions and critical questions. Mean and standard deviation were used to answer the research question, while t-test was used to test the hypothesis at 0.05 level of significance.

### Results

The results were presented based on research question and hypothesis formulated for the study.

**Research Question one:** What is the effect of collaborative activities on the performance of second language learners in reading comprehension at the basic education level in Nigeria?

**Table 1: Mean and Standard Deviation on the performance of students taught using collaborative activities and those using conventional approach**

Groups	N	Mean	Standard Deviation
Experimental Group	20	70.00	18.97
Control Group	20	52.50	10.42

The result on table one revealed that, the students taught reading comprehension using collaborative activities have a mean score of 70.00, while the students taught reading comprehension using conventional approach have a mean score of 52.50. Thus, the students taught reading comprehension using collaborative activities have the highest score. Therefore, students in the experimental group perform better than the students in control group.

**Hypothesis One:** Collaborative activities has no significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria.

**Table 2: T-test analysis on the performance of students taught using collaborative activities and those using conventional approach**

Groups	N	Mean	SD	DF	T-Cal	T-Crit	Decision
Experimental Group	20	70.00	18.97	38	4.69	1.960	Rejected
Control Group	20	52.50	10.42				

The result on table two showed a mean score of 70.00 for experimental group and a mean score of 52.50 for control group. While the t-cal of 4.69 and the t-crit of 1.960 were recorded. This means that, the t-cal 4.69 is higher than the t-crit 1.960. Therefore, the null hypothesis which stated that Collaborative activities has no significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria is rejected. Thus Collaborative activities has significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria.

### **Discussion of Finding**

The descriptive result revealed that, the students taught reading comprehension using collaborative activities have a mean score of 70.00, while the students taught reading comprehension using conventional approach have a mean score of 52.50. Thus, the students taught reading comprehension using collaborative activities have the highest score. Therefore, students in the experimental group perform better than the students in control group. While the inferential analysis result showed the t-cal of 4.69 and the t-crit of 1.960 were recorded. This means that, the t-cal 4.69 is higher than the t-crit 1.960. Therefore, the null hypothesis which stated that Collaborative activities has no significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria is rejected. Thus collaborative activities has significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria.

### **Conclusion**

Based on the findings of the study, the researchers' concluded that, the students who received a treatment through collaborative approach have better leaning opportunity than those in experimental group. Therefore, collaborative activities has significant effect on the performance of second language learners in reading comprehension at the basic education level in Nigeria.

### **Recommendation**

The study recommended that, second language teachers should make use of collaborative teaching approach while teaching reading comprehension, since the approach (collaborative approach) has the potential of improving learners' performance.

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**READING DIFFICULTIES AMONG PRIMARY SCHOOL PUPILS:  
IMPLICATION FOR SPECIAL EDUCATION  
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**ABSTRACT**

*The paper highlights some of the Characteristic Related to Reading Difficulties, Symptom classification under excessive motor action during reading, Intervention strategies that overcome reading problems such as phonemic awareness. Accuracy of word decoding, Automaticity of word recognition, Prosody of oral text reading and Developmental reading Fluency to improve reading skills. Considering the Use of phonemic awareness Accuracy of word decoding, Automaticity of word recognition, Prosody of oral text reading and Developmental reading Fluency are very crucial aspect to be considered in reading. the Researchers recommended that, Government should organize a workshops for all primary school teachers on reading difficulties in order to meet the unique needs of pupils with reading difficulties, Poor readers and good readers to read together in a group so that group dynamics and more relaxed peers will motivate the poor reader to learn effectively and also, Government are urge to introduce new subject on reading fluency to teach in primary school as “oral reading skills so that it enable the pupils to develop in their reading skills.*

**Keywords:** Primary, Reading, Dyslexia, Difficulties, Intervention and Strategies

**Introduction**

It is pertinent to note that a number of children in the school's experiences unusual difficulties in learning the school subject in phonemic awareness word decoding, word recognition and reading fluency etc. Such problems or difficulties are otherwise referred to as learning difficulties in the process of learning. The reading process has been traditionally viewed in the literature as composing of two aspects: word recognition and comprehension. Word recognition skills enable the reader to recognized words and to learn ways to figure out unknown words by decoding printed words, letters by matching letters, and words with sounds. (Lerner, 2012). Comprehension on the other hand, implies the readers understanding of a passage following an interaction with the author or obtaining meaning through reading.

### **Concept of Primary Education in Nigerian**

In Nigerian, primary education is the education given in a primary for children aged 6-11 years (EFA, 2000). According to the Federal republic of Nigeria FRN (2014), the goals and objectives of Primary Education are to:

- a. Inculcate permanent literacy, and ability to communicate effectively;
- b. Lay a sound basic for scientific and reflective thinking,
- c. Give citizenship education as a basic for effective participation in and contribution to the life of the society
- d. Mould the character and develop sound attitude and morals in the child;
- e. Develop in the child the ability to adapt to his changing environment;
- f. Give the child opportunities for developing manipulative skills that will enable him to function effectively in the society within the limits of his capacity;
- g. Provide the child with basis tools for further educational advancement, including preparation for traders and crafts of the locality.

It should be noted that, Primary Education in Nigeria remains the bedrock up on which the formal Education system is build. It is a field of study that attracted much attention and concern from the government, educationist and parents this is because; primary education level is the most crucial and fundamental to Nigerians future educational stability. Primary Education studies are also becoming popular in Nigerian Universities and other Tertiary Education. A good number of Nigerian Universities and Colleges of Education have units or department that teach or undertake research activities related to primary education.

### **Concept of Special Education**

National Policy on Education (2004) section 8 conceptualizes special in defining special education emphasizes the different categories of handicap. Therefore, special education is defined as;

The Education of children and adults who have learning difficulties because of different sorts of handicaps: - blindness, partial sightedness, deafness, hardness of hearing, mental retardation, social maladjustment, physical handicaps, etc. due to circumstances of birth, inheritances, social position, mental and physical health pattern or accident in later life. As a result, a few children and adults are unable to cope with the normal school-class organization

and methods. There are also the specially gifted who are intellectually precocious (of a child developed much younger than usual) and find themselves insufficiently challenged by the program of the normal school and who may take to stubbornness and apathy (showing or feeling no interest) in resistance to it. Fletcher-Janzen (2002) defined special education as ‘the scientific study and education of persons with exceptional education needs.

### **Concept of Reading Difficulties (Dyslexia)**

As other learning disabilities, dyslexia are a lifelong challenge that people are born with. This language processing disorder are reading, writing, spelling and sometimes even speaking. Dyslexia is not a sign of poor intelligence or laziness. It is also not the result of impaired vision. Children and adults with dyslexia simply have a neurological disorder that causes their brains to process and interpret information differently.

Dyslexia is a disorder manifested by difficulty learning to read despite conventional instruction, adequate intelligence, and socio-culture opportunity. It is dependent upon cognitive disabilities which are frequently of constellational origin. Once you have identified the pupil’s strength and weaknesses, you can develop an intervention plan. Intervention is applied in all school situations and on all students/pupils whether handicapped or not, but with the learning disable child with the frequently application of different tactics has to be increased for the child to learn efficiently.

### **Characteristic Related to Reading Difficulties**

The academic area that posits difficulty for most learners is reading (Ozoji 2003). Most groups of learners with reading problems can exhibit a number of characteristics either in isolation or in combination. These difficulties include:

- Mispronunciation
- Dysfluent oral reading
- Excessive motor action during reading
- Skipping, Substitution and addition (SSA) errors. The Symptoms grouped under the category of mispronunciation include:
  - a) Reversal: Which is tendency of the reader to reverse letters or words that are difference only in direction e.g b as d. no for on.
  - b) Inversion: Changing the vertical positioning of letters or words in essence turning them upside down e.g. u as n, w as m, b as p.
  - c) Problem of auditory discrimination: - the inability of reader to discriminate different sounds e.g. sounding cup as cap, mud as mad, both as bot.

Dysfluent oral reading symptoms, on the other hand, include:

- a) Hesitant/Halting Reading: Reading in a start/stop, jerky manner, with or without stammer.
- a) Finger pointing: Reader uses finger to trace along the printed material being read.
- b) Head swaying: Reader moves the head persistently from the left margin to the right following the text being read.
- c) Excessive voice inflexion: Reader raises the voice often in attempting to pronounce words difficult to him or her.

Symptoms under skipping, substitution and adding are:

4. Skipping: Reader jumps over or omits word(s) or letter(s) thus not pronouncing them for all e.g pronouncing “Delta as “Deta”, hand as and, eat as at.
5. Substitution of one letter with another: The child under this condition appears to represent letters by other letters that are closely related by sound, e.g instead of reading pig; he ails big, fat-hat. “I wish to get a car” as h1 want to get a car”.
6. Adding: reader brings in an entirely new word or expression in to the passage or sentence being read e.g “curriculum vita” as “curriculum vital” or he will bring it formed “as he will help me bring it.

Therefore, reading difficulties can manifest in various ways but common among which include decoding struggles, slow reading speed, poor comprehension, lack of sight words etc. this characteristic can vary in severity and may not be exhaustive. Identifying these traits can help educators and parents provide targeted support to address reading difficulties.

### **Intervention Strategies To Overcome Reading Problems and Improve Reading Skills.**

Lerner (2012) outlined five strategies that could be used to overcoming problems and improve reading skills among school children and these are as follow:-

- 1. Time delay:** This is when a learner is given enough time to produce a response he has already acquired. It enables the learner to control the instructional situation and is discontinued when the pupils no longer need the method. It is good in the acquisition of spelling and the recognition of words.
- 2. Cueing and prompting:** Cueing is when the teacher point to, touches or taps the correct respond for the learner to see and leave him in subsequent attempts to touch them himself Cues help pupils make as fewer errors as possible during instruction. Prompting is to reminding the child what he/she have been taught. This tactic is also good in teaching “word recognition”.

**3. Chaining** this is when a concept is taught in order from simple to complex and in stages where each stage has to be mastered before the next one is considered, e.g. when the pupils learnt A-Z the next thing is to teach them vowels and consonants. Praise Academic performance can be improved by the use of praise. Spend a lot of time praising the child, it will give the child courage and also increase his/her academic performance. I am now a teacher who strongly believes in praise as a means of increasing excitement and motivation for learning.

**4 Multisensory method:** Which involves the use of visual, auditory and kinesthetic/tactile pathways to reinforce learning in the brain. It involves different styles in the teaching and learning process. A child has a visual memory from seeing the letters or words, an auditory memory from hearing the sound, a tactile memory from the writing the letters or words and a kinesthetic memory (body movement).

### **Developmental Reading Fluency**

When reading aloud, fluent readers sound natural their reading is accurate, quick and uses proper expression. In contrast, disfluent readers may make many errors. Their reading may be slow and laborious, as they employ strategies to identify words, and their reading may lack expression, instead being monotone and unnatural sounding. Based on these observable differences, the fluency of oral reading can be easily assessed within 60 seconds (Rasinski, 2004). Though most easily assessed orally, reading fluency is not solely an oral skill.

When students are able to read most words in their grade-level texts but do so slowly and with little expression, instruction aimed at increasing the oral reading rate should be targeted. In other words, the goal is to help children become fluent readers. Fluent readers are those who read words accurately, effortlessly, quickly and with expression. Reading fluency has been related to comprehension performance. Increasing fluency skills often involves repeated practice under timed conditions. Students can be taught to become fluent on all the critical component skills of reading. The following techniques and method can be used to increase reading fluency in and out of connected text.

### **Fundamental Skills of Reading Fluency**

Reading fluency comprises three component skills, or fluency indicators (Rasinski, 2004)

- Accuracy of word decoding
- Automaticity of word recognition
- Prosody of oral text reading

Accuracy of word decoding refers to the ability to correctly generate a phonological representation of each word, either because it is part of the reader's sight-word vocabulary or by use of a more effortful decoding strategy, such as sounding out the word. The skills required for accuracy of decoding include: alphabetic principles, the ability to blend sounds, the ability to use cues to identify words in text and a large sight-word vocabulary of high-frequency words (Torgesen & Hudson, 2006). Accurate decoding is a requirement for building the next component of reading fluency-automaticity.

Automaticity of word recognition: refers to the ability to quickly recognize words automatically, with little cognitive effort or attention. Automaticity is gained through practice to the point where previously effortful tasks, such as word decoding, become fast and effortless – freeing up cognitive resources for other tasks, such Auto-skill International Inc. Reading fluency: A Bridge from Decoding to Comprehension as text comprehension. Automaticity requires a quick and an accurate identification of individual words, as well as speed and fluidity in reading connected text (Torgesen & Hudson, 2006), Automaticity is a requirement for building the next component of reading fluency prosody as the automatic decoding of words frees up intentional resources required for prosody.

**Prosody of oral text reading:** Refers to the naturalness of reading or the ability to read with proper phrasing and expression, imbuing text with suitable volume, stress, pitch and intonation. Prosody is an indicator that the reader is actively constructing the meaning of a passage as they read (Torgesen & Hudson, 2006). Indeed, prosody may both serve as an indicator that a student is comprehending as they read and also aid comprehension.

### **Conclusion**

In conclusion, reading difficulties among primary school pupils are a pressing concern that requires urgent attention. The prevalence of reading challenges among this age group can have far-reaching consequences on their academic, social and emotional development. Identifying the root causes of reading difficulties such as phonemic awareness, decoding and comprehension skills, is crucial in providing targeted support. Teachers, parents and educators must work collaboratively to create a supportive learning environment that fosters a love for reading, provides adequate resources, and implements evidence-based intervention. By addressing reading difficulties early and effectively, we can empower primary pupils to become confident, proficient learners, and lifelong readers.

## **Recommendations**

The researcher made the following recommendation.

1. Government should organize a workshop for all primary teachers on reading difficulties in order to meet the unique needs of pupils with reading difficulties,
2. Poor readers and good readers to read together in a group so that group dynamics and more relaxed peers will motivate the poor reader to learn effectively
3. Government is urge to introduce new subject to teach in primary school as “Reading skills so that it enables the pupils to develop in their reading skills.
4. Teachers are encouraging to develop different strategies that could be used to overcome the problems and challenges of reading difficulties among primary school children

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## PERCEPTIONS OF STAKEHOLDERS ON PROVISION AND MANAGEMENT OF STUDENTS SERVICES IN HIGHER INSTITUTIONS IN YOBE STATE, NIGERIA

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### ABSTRACT

*The study examined the perceptions of stakeholders on provision and management of students' services in higher institution in Yobe state, Nigeria. Three (3) objectives with corresponding three (3) research questions were formulated to guide the study. Descriptive survey design was used in conducting the study. The target population of the study consisted of 27,934 which include 74 management staff, 2,726 teaching staff, 3,974 non-teaching staff and 21,160 students' in higher institutions in Yobe State, Nigeria. A sample of 260 respondents of which 65 teaching staff, 75 non-teaching staff, 104 students' representatives and 16 management staff were selected using simple random sampling technique. A closed ended questionnaire was adapted and used to collect data. The instrument has cronbach Alpha Coefficient of 0.87. Descriptive statistics of mean and standard deviation were used to answer the research questions. The findings of the study revealed perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria is low, perception of stakeholders on provision and management of hostel accommodation services in higher institutions in Yobe state, Nigeria is low, stakeholder's perceptions on provision and management of health services in higher institutions in Yobe state, Nigeria is high. In the light of the findings from the study, conclusion was made that agreement in the perceptions of stakeholders across various services, implying that the diverse groups within the higher education institutions in Yobe State generally hold similar views on the provision and management of these services. Based on the conclusion drawn, the study recommended that; federal and state government should endeavour to give bursary award and scholarship to higher institutions students, particular attention should be given to students with demonstrated financial problems (indigent students), physically challenged students, outstanding and talented in sports and best students in the departmental and faculty courses to mitigate the problems that may arise such as (accommodation, transportation, cafeteria activities) among others.*

**Keywords:** Perceptions, Stakeholders, Management, Students' Services, Higher Institutions

### Introduction

Universities and other tertiary institutions are established to achieve a wide variety of goals which include teaching and imparting knowledge, seeking and discovering truth, disseminating research finding so that mankind may shed the shackles of ignorance and want, and developing manpower to induce change and progress in the society (Abubakar, 2011). Universities play major roles in national development especially in the development of high-

level manpower. University and other higher institutions education is the facilitator, the bed rock, the power house and the driving force for the strong socio-economic, political, cultural, healthier and industrial development of a nation as the institutions are key mechanisms increasingly recognized as wealth and human capital producing industries. University and other higher institutions educational provision enables the citizens to acquire skills and techniques which are ploughed into human productivity, creativity, competence, initiative, innovation and inventiveness (Alani, 2010).

Higher education must address the basic personal needs of students' by providing a comprehensive set of out-of-classroom students' services and programmes commonly referred to as welfare and social services (Bolto, 2013). These efforts should be designed to enable and empower students to focus more intensely on their studies and their personal growth and maturation, both cognitively and emotionally. They should also result in enhanced students' learning outcomes. Another important rationale for these efforts is economic, because investments in students' welfare and social services provide a healthy return to national economies as the investments help to ensure students' success in higher education and their subsequent contributions to the national welfare (Chukwu, 2012).

For quality education to be achieved, an institution must train its staff members in a way that it creates a sense of facilitation by means of coordination, cooperation, compassion and empathy. Attention should also be given to identifying the dynamic needs of the students for purposes of their satisfaction. Several issues have resulted in many controversies at several academic level over the effectiveness of Nigerian learners in the universities in relation to their counterparts in the developed world, with particular focus on the provision and management of welfare and social services. Students' welfare and social services are marks that distinguishes one institution from the other.

Services issues in the context of university education are those right, processes and procedures whose primary purpose is to motivate, maintain and enhance the physical, social, intellectual and emotional well-being of students'. Services are all activities beyond the production and delivery of course materials that assist in the academic progress of students'. Welfare service is one of the wide range of services put in place by school authority, to ensure sound learning of students in the campus. Accommodation, counselling, career information, support from tutor, course information, students' unionism, bursary award/scholarship, degree marketability and transportation as the basic welfare services that would serve the entire students' populace in any higher institution of learning. The National Universities Commission (NUC, 2013) identified students' social services in universities and

other higher institutions to include health services, cafeteria, hostels, financial aid, counselling services, library, classroom facilities, instructional materials, and municipal services.

Akuchie (2018) observed that most of the medical centers in the campuses are at best referred to as mere consulting clinics because of inadequate staff personnel, and non-availability of drugs, including common routine drugs. Equally, water and power supply is epileptic in most of the universities as well as transportation of students' and staff from outside and within the campuses. The buses and taxis are not enough and most of the universities do not permit commercial motorcycles (motor bikes) to operate within the campuses and so the staff and students' of Nigerian universities are stressed by poor transportation within the campuses Akuchie (2018), Students' activities and movement are not effectively monitored hence the universities, the cities they are located and their surrounding suburbs continually record incidents of cult activities, and murder, equally students are known to have been involved in robbery activities within the higher institutions and on the high ways. This is because the students are not known and are not offered counselling services (Chukwu, 2012)

The state of students' welfare and social services in Nigerian universities made Chukwu (2012) to carry out a study on the problems of students' accommodation. The situation equally made some of the universities to set up task forces on students' welfare and social services in which recommendations informed the introduction of double-bunk beds in hostel rooms, the repair and regular maintenance of such students' welfare services as spoilt toilets and bathrooms, spoilt/blocked sewage and broken-down boreholes. The recommendations of the task force equally informed the supply of water to the hostels by water tankers, the renovation of hostels and hostel facilities, and the holding of regular fore to talk to students' on how to manage their environment and their lives Chukwu, 2010). Some of the higher institutions even set up vigilante groups to beef-up security (Okolie, 2010).

The level of stakeholder participation in Nigerian educational institutions is low and this has resulted in crises in the universities. Jones and George (2006) noted that despite the various value attached to university education, it appears University education in Nigeria, is today faced with many crises. The crises in Nigerian Universities today, have not been unconnected with the frequent student protest usually in the form of violent demonstrations. This situation has led to the perennial closure of the system because of maladministration and poor management.

It has been observed that the issue of quality education in the universities has fallen, poor ranking of universities, corruption, and unstable academic calendar are the orders of the day

(Jongbloed, Enders & Salerno, 2008). Students are only sure of the date of admission; the expected year of graduation is no longer known from inception. Parents/Guardians now incurred extra costs keeping their children/wards indefinitely in school. In addition, it has been observed that irregular academic calendar has also encouraged examination malpractices, cultism and other vices on Nigerian university campuses (Mainardes, 2010). The poor participation of stakeholder in the administration and management of universities have allowed the university leaders to do anyhow without questioning. The poor participation of the stakeholder in the administration of the universities has left the university system in its present condition. Hence, it is needful to discuss the barriers to effective stakeholder participation in university administration in Nigeria.

From the above assertions, it appears that something is lacking in the quality and quantity of students' welfare and social services in Nigerian public universities. This was not the case when Nigeria had very few universities, and very few candidates seeking admission. Such factors as increase in the number of candidates seeking admission, and the expansion of academic programmes may probably have contributed to the present state of welfare services in Nigerian universities (Nwagwu, 2012). The present state of students' welfare services is apparently affecting the students' in many ways, and all the strategies adopted by the universities so far to arrest the situation appear to be yielding no significant results. Welfare and social service programmes are aimed at achieving some predetermined objectives mostly to facilitate the process of teaching and learning in university setting. The administration of welfare programmes such as hostel accommodation, guidance and counselling, library service, health service, transport service cafeteria service, extra-curricular activities and internet service, etc. in the tertiary institutions, particularly universities, border on the number of persons and activities that are administered through a number of governmental programmes and higher institutions governing policies coordinated by the Students' Affairs Unit. Social services in the conglomerate of social welfare in universities are provided by stakeholders of the institution which include government, employers, current students, academic and administrative staff, institutional managers, prospective students' and their parents, taxpayers, funding organizations, parents, accreditation organizations, professional associations, and the boards of universities. The roles of the stakeholders in the provision and management of welfare and social services are inevitable in the university system (Akinsanya, 2010). The government is the stakeholder mostly held with the responsibility of providing the greater percentage of these services. The public sector is the major provider and financier of education in Nigeria since it took over most of the schools in the country from

primary to tertiary level in the mid-70s (Afolayan 2015). Government policies and budget allocation to education sector determine the degree to which these services are made available to universities by the government.

Each of the stakeholders has different view which is influenced by own interest in higher education on provision and management of the welfare and social services. In the provision and management of the welfare and social service process, internal and external stakeholders who may have different roles are identified Mainardes (2010). The external stakeholders are mainly concerned with the provision and assessment of the welfare and social service so that it meets an appropriate and required standard. They are concerned with the control of quality, whereas the emphasis of internal stakeholders is on provision and management of the welfare and social service and also quality enhancement. This aims at improving in the actual quality of teaching and learning and service delivery.

Management can be viewed as harnessing both human and material resources within an integrated system for the attainment of educational goals through an organized structure that is characterized by management functions such as planning, organizing, directing, supervision and evaluation (Hinjari, 2010). Management of welfare services involves initiating actions, monitoring activities and demanding results on the bases of allocated resources as well as policy making, control and supervision in the attainment of educational goals is the major functions and responsibility of the students' affairs unit.

One of the most difficult activities of mankind all over the world is management according to (Sheldreke, 2014) because it has to do with getting things done through and with people. The onus of managing welfare and social services therefore fall on the management policies of the higher institutions stakeholders which is expected to manage the higher institutions resources effectively with little or no challenge (Meenyinkor, 2014). Effective and efficient management of students' welfare and social services in universities are not only important but necessary for the achievement of the desired educational goals of inculcating the right type of values, attitudes, skills, and development of mental and physical abilities as equipment for producing good quality citizens for Nigeria (Federal Republic of Nigeria, 2004). The importance attached to students' welfare and social services implies that they should not only be adequately provided but should also be well managed.

The provision and management of welfare and social services in higher institution determine the quality of education of a nation as well as the economic development this research intends to assess the perception of stakeholders on the provision and management of welfare and social services in higher institutions in Yobe State, Nigeria.

**Statement of the Problem**

In tertiary institutions students' welfare and social services such as: hostel accommodation, guidance and counseling center, library service, health service, transport service, cafeteria service, extra-curricular activities and internet service have become major teething problems (Tran Le Minh, 2016). The researcher has observed that those services in the higher institutions in Yobe State more especially are uncondusive and deplorable and this may affect the academic performance of students' and their all-round development. Because of limited government resources, governments are unable to adequately meet the services demand for all public higher institutions in Yobe State. Over the past two decades, governments in many ways have involved private organization providers to participate in building hostels and halls of residence for students in order to meet the demand for more accommodation infrastructure and other social welfare services. This has attracted many private individuals into investment in students' hostel accommodation and other welfare and social services.

An increase in student enrollment in higher institutions in Yobe State, combined with the challenges in the provision and management of facilities, can hinder students from achieving their goals and objectives, as evidenced by poor academic performance. It is in view of this, the need to redress the re-occurring mishap that this study seeks to investigate the perception of stakeholders on provision and management of welfare and social services in higher institutions in Yobe State, Nigeria.

**Objectives of the Study**

The objectives of this study are to assess:

1. The perception of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria.
2. The perception of stakeholders on provision and management of hostel accommodation Services in higher institutions in Yobe state, Nigeria.
3. The perception of stakeholders on provision and management of health services in higher institution in Yobe state, Nigeria.

**Research Questions**

This study seek answers to the following research questions:

1. What are the perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria?
2. What are the perceptions of stakeholders on provision and management of Hostel Accommodation Services in higher institutions in Yobe state, Nigeria?

3. What are the stakeholder's perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria?

### Methodology

Descriptive survey research design was used for the study. The population of the study comprised of 27,934 which include 74 management staff, 2,726 teaching staff, 3,974 non-teaching staff and 21,160 student's representatives in the existing higher institutions within in Yobe State, Nigeria. The sample size for the study comprise of 260 respondents of which 65 teaching staff, 75 non-teaching staff, 104 students' representatives and 16 management staff selected using simple random sampling techniques. Research Advisor (2006) table of determining sample was guide the sample selection. A closed ended questionnaire adapted from the work of Maina (2016) and was used to generate the relevant data for the study with little modification. The questionnaire was titled "Perception of Stakeholders on Provision and Management of Services in Higher Institutions Questionnaire (QPSPMWSSHIYS). The instrument has reliability coefficient of .87. The descriptive statistics of mean and standard deviation were used to answer the research questions and decision mean of 3.0 was used to determine acceptance or rejection of the item statement as structured in the instrument to answer the research questions.

### Result

**Research Question 1:** What are the perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria?

**Table 1: Mean and Standard deviation on perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria**

S/N	Item Statement	MEAN	SD	Decision
1	There is Internet service in your school	1.56	.49716	Disagreed
2	The internet service works every day for the benefit of students	1.87	.46003	Disagreed
3	The school internet is used for research by students to improve their academic achievement.	2.42	1.07555	Disagreed
4	Your school makes provision for free wireless in the campus	2.88	.87823	Disagreed
5	Your school provides modem to students to enable them get access to the Internet service.	1.57	.69084	Disagreed
6	Your school internet is easily accessible.	1.39	.56335	Disagreed
7	Your school is linked to internet service	1.30	.56473	Disagreed
8	Students are patronizing e-library for their research.	2.83	.57360	Disagreed
9	The internet service is well managed	2.81	.81288	Disagreed
10	The management supervises the internet facilities regularly	1.38	.48651	Disagreed

11	Spoiled facilities are replaced promptly	1.35	.56761	Disagreed
12	The computers in the E-Library are well maintained	3.46	.67122	Agreed
<b>Summative Mean</b>		<b>2.07</b>		

Table 3 revealed the mean score and standard deviation of perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria. The summative mean score stood at 2.07 which is below the benchmark point of 3.00. Therefore, perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria is low.

**Research Question 2:** What are the perceptions of stakeholders on provision and management of Hostel Accommodation Services in higher institutions in Yobe state, Nigeria?

**Table 2: Mean and Standard deviation on perceptions of stakeholders on provision and management of Hostel Accommodation Services in higher institutions in Yobe state, Nigeria**

S/N	Item Statement	MEAN	SD	Decision
1	There is adequate provision of students' accommodation in your school	2.54	1.66	Disagreed
2	Your school provided enough rooms for students	2.43	1.02	Disagreed
3	There is regular supply of water in your school	2.59	1.33	Disagreed
4	Your school provided enough security personnel in the hostels	2.81	1.53	Disagreed
5	There is regular supply of electricity in the hostels	2.33	1.32	Disagreed
6	There are good toilet facilities in the students Hostel in your school	2.22	1.44	Disagreed
7	There is burglar proof to enhance security in the hostel	2.17	1.48	Disagreed
8	Your school provided bunks and mattresses for students	3.01	1.53	Agreed
9	The students' accommodation is well maintained	2.76	1.35	Disagreed
10	The rooms in the students' hostels are well managed	2.58	1.63	Disagreed
11	The bunks and mattresses are regularly replaced when spoiled	1.40	.550	Disagreed
12	The water facilities are promptly repaired when necessary	2.78	.839	Disagreed
13	The electricity supply is instantly fixed when the need arises	2.19	1.26	Disagreed
14	The toilet facilities are well managed	1.79	1.20	Disagreed
<b>15</b>	<b>Summative Mean</b>	<b>2.4</b>		

Table 4 showed that the mean score of perceptions of stakeholders on provision and management of hostel accommodation services in higher institutions in Yobe state, Nigeria was 2.4 which is below the benchmark decision point. This implies that the perceptions of

stakeholders on provision and management of hostel accommodation services in higher institutions in Yobe state, Nigeria is low.

**Research Question 3:** What are the stakeholder’s perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria?

**Table 3: Mean and Standard deviation on stakeholder’s perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria**

S/N	Item Statement	MEAN	SD	Decision
1	Functional clinic is provided to the students in your school	3.98	.99	Agreed
2	Your school provides drugs all the time	2.96	.90	Disagreed
3	ventilated rest rooms are provided in your clinic	3.31	1.19	Agreed
4	Doctors are available in your clinic all the time.	2.82	1.62	Disagreed
5	Your school provides effective health care facilities	3.31	1.89	Agreed
6	There are Professional Nurses in the clinics	2.66	.97	Disagreed
7	Test equipment are provided in your school	4.11	1.32	Agreed
8	Your clinic is always clean.	3.01	1.25	Agreed
9	The University’s clinic is well managed	2.94	1.12	Disagreed
10	The drugs provided in your school are well utilized	2.68	1.03	Disagreed
11	The rest rooms in your school are well maintained	2.80	1.41	Disagreed
12	The management supervises the activities of the doctors and nurses	2.85	.88	Disagreed
13	The health care facilities are well managed	1.64	.83	Disagreed
14	The management supervises the nurses in the clinic	3.00	1.23	Agreed
<b>15</b>	<b>Summative Mean</b>	<b>3.01</b>		

Table 5 revealed the stakeholder’s perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria. The result indicate that the summative mean stood at 3.01 which above the benchmark decision point. As such the stakeholder’s perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria is agreed

**Discussions**

Research question one sought to determine perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria. The finding revealed perceptions of stakeholders on provision and management of Internet Services in higher institutions in Yobe state, Nigeria is disagreed The finding negate the previous study of Nok (2006) who investigated the internet activities engaged in, frequency of use of the internet and challenges limiting the use of the internet among the undergraduate students of the University of Ibadan, Nigeria. The study found out that the respondents had good computer skills and used the internet for various activities which vary across faculty of study. On the other hand the finding is in consonance with the study of Tran (2016) who conducted study in Rivers State, South-South, Nigeria and find out amongst others, which many

universities in Nigeria lacked digital facilities for quality e-teaching and learning and, again, university lecturers and students required core digital skills for effective e-learning.

Research question two sought to examine the perceptions of stakeholders on provision and management of Hostel Accommodation Services in higher institutions in Yobe state, Nigeria. The finding indicated that perceptions of stakeholders on provision and management of Hostel Accommodation Services in higher institutions in Yobe state, Nigeria is low. Therefore, the growing enrolment of students in tertiary institutions resulted to students' accommodation to become one of the teething problems faced by higher institutions (Sharma, 2012). Hostel accommodations in the higher institutions are uncondusive and deplorable and this affects the academic performance of students' and their all-round development (Akuchie, 2014). As a result of limited government resources, governments in developing countries are unable to adequately meet the accommodation demand for all public universities. Therefore, for these issues to be resolved, federal and state government are to hand over the hostels to private managers who will maintain them and charge appropriate fees to those who accept their offer. Government would turn attention to other aspects of education funding that cannot be privatized (such as staff salaries, research by the teachers, and provision of teaching/learning facilities cum materials).

Research question three investigated the stakeholder's perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria. The finding revealed that the stakeholder's perceptions on provision and management of Health Services in higher institutions in Yobe state, Nigeria is agreed. The finding is in agreement with the study of Nwoba, (2015) who assessed teachers' perception of school health services and concluded that public primary school teachers are aware of school health services and their benefits to pupils and the school community and that non-provision of varied services by school. School Health Services are preventive and curative services provided for the promotion of the health status of learners and staff. The purpose of the School Health Services is to help children at school to achieve the maximum health possible for them to obtain full benefit from their education. Moreover, the present study negates the previous study of John (2012) who investigated the student's perception of factors affecting their utilization of health care services provided in a tertiary institution and assess students' attitude towards utilization. The finding revealed that High cost of drugs (72.0%), non-availability of essential drugs (54.8%), time spent waiting for treatment (67.2%), inadequate referral services (81.7%), and satisfaction with services (60.6%) were considered by the

respondents as factors affecting the utilization of university health services. Students-medical staff relationship and accessibility to health facility (77.6% and 74.3% respectively) were, however, not considered as factors that affect utilization of university health services. Similarly, the present study add disagree with the study of Marafa (2014) who conducted a study on “An assessment of the management of students’ Welfare services in universities in three Geo-Political Zones in Northern part of Nigeria” and found out that the social, academic, medical and environmental students’ services were available but not adequate in the universities. It was also discovered that some services had positive impact on students’ behavior and academic performance. Health services process should be directed to students acquiring knowledge, positive attitude and skill or practice for the well-being of him and others School Health Services is a component of school health education, referred to as school health programme or education. School health education programme comprises of school health instruction by which health education purpose is achieved. The school health services are directed at the well - being and health of the school community (learners, teachers and non - teachers) and the school healthy living environment meant to cater for preventive health of the school community. The school health service is meant to promote the health of the school community. Without it there will be drastic reduction in learning. This is because learning is a factor of physically, mental and social well- being.

### **Conclusion**

The realization that these services (internet, hostel accommodation) are disagreed have bolstered this investigation. As such, the research has identified links between perceptions of stakeholders on provision and management of health services in higher institutions in Yobe state, Nigeria. Therefore, the research have concluded that agreement in the perceptions of stakeholders across various services, implying that the diverse groups within the higher education institutions in Yobe State generally hold similar views on the provision and management of these services.

### **Recommendations**

Based on the findings of the study, the following recommendations were propelled:

1. Federal and State Government should provide internet service to higher institution in Yobe state, Nigeria.
2. Federal and State Government should endeavour to give bursary award and scholarship to higher institutions students, particular attention should be given to students with demonstrated financial problems (indigent students), physically

challenged students, outstanding and talented in sports and best students in the departmental and faculty courses to mitigate the problems that may arise such as (accommodation, transportation, cafeteria activities)

3. School Management should ensure basic infrastructure like electricity, pipe-borne water and road network should be improved. The constant erratic power outages in the higher institutions call for immediate attention.

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**EFFECT OF DE-BOARDING OF SOME SENIOR SECONDARY SCHOOLS ON STUDENTS' ATTENDANCE AND HOME WORK IN POTISKUM LOCAL GOVERNMENT AREA, YOBE STATE**

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**ABSTRACT**

*This study investigated the effect of de-boarding of some senior secondary schools on students class attendance and homework/assignment within Potiskum local Government Area, Yobe state. The objectives of study were to investigate the effect of de-boarding of some senior secondary schools on students attendance; and find out the impacts of de-boarding on students' time of doing homework /assignment. Interview and the records of first and the third terms students' attendance registers were used as the instrument/method of data collection, presentation and analysis of data was done in tabular form, the result was presented using frequency and percentage to find out the total attendance of students before and after the de-boarding. Before the boarding, 48.4% students' attendance was recorded but after the de-boarding, only 38.2%, total students' attendance was recorded in Fika GSS Pkm. While in GDSS Mamudo it was found that 228.3% was recorded as total students; attendance before de-boarding while, 459.2% was recorded as the total students' attendance after the de-boarding. The study recommended that, state government and education stakeholders should revisit those schools operating dual system of both day and boarding at the same time and modify the system to operate as single system, either as fully boarding or as fully day system. This is because operating dual system was found discouraging students from attending school and they do not reserved time for home-work or assignment, consequently it affect their academic performance.*

**Introduction**

Education is widely recognized as the backbone of the Nation, serving as the cornerstone for its progress, development, and prosperity necessary to contribute meaningfully to the society, drive innovation, and foster economic growth. It is through education that individual acquired the knowledge, skills and values. As such, every responsible parent needs his child to attend a good school to be educated and gains skills to manage life challenges and becomes

a better person. But it is not easy to decide which the best school is best for your child, between the boarding schools or day school.

Boarding school or Day school debate is not new but it is essential pillar to choosing what the best is for your child. Boarding school is a school where students receive a primary or secondary education while living on the school grounds (Raikar, P.S.2024).

While a day school - is educational institution where children are given instruction during the day, after which the students return to their homes (Lucy T. 2023).

### **Statement of the Problem**

The students 'truancy which affect their academic achievements in secondary schools or event in higher institution have been given more concern to parents and teachers. The poor performance of the students have been attributed to a negative attitude to learning, inadequate facilities, overcrowded in classrooms, lack of suitable and adequate science equipment, and poor background of students at the foundation level ( Chado,A.M.2018).

However, students who stay in the school permanently as boarding, perhaps have fewer problems in the above mentioned issues, because they always remained under the supervision of teachers and have full attendance as such; they have ample time for both afternoon and evening reading. They used this time to do some assignment/ homework; in addition, they are always in the school.

These boarding students were suddenly turned to become day students, they sleep in their homes, and they interact with their friends who do not go to school. At this their adolescence period, they listen to their friends more than their parents and as a result, they may refused to go to school even if their parent asked them to go. At this point, they will be marked absent in their school.

Therefore, this study is tried to investigate effect of the de-boarding of these schools on students attendance and homework/assignment within Potiskum local Government Area, Yobe State.

### **Objectives of the Study**

The study aim to investigate whether the de-boarding of some senior secondary schools in Yobe State have effect on students attendance and home work within Potiskum local government Area

1. To investigate the effect of de-boarding of some senior secondary schools on students attendance.
2. To find out the impacts of de-boarding on students' time of doing Homework /assignment

### Research Questions

1. What are the effects of de-boarding of some senior secondary schools on students' attendance?
2. What are the impacts of the school de-boarding on students' time of doing homework/assignment?

### Significant of the Study

Governments and education stakeholders in the state will find this study useful as it will provide an insight into the need for returning the de-boarded secondary schools into boarding or take positive steps to tackling the issues of truancy among the day students.

This study will also actuate the educational stakeholders in the state to revisit those de-boarded schools to checkmate the rate of student's punctuality and make teachers vigilant about student's homework so as to let students have qualitative education that will make them productive members of society.

### Method of Data Collection

Physical interview with some of the schools administrators, school's year group tutors and observation and comparism of students' class attendance registers for both before and after the school de-boarding, from Fika GSS Potiskum and GDSS Mamudo were adopted as the instrument and method of data collection.

### Results

The data obtained from the interview in Fika GSS Potiskum on the cause, advantages and the dis-advantages of their de-boarding are as follows:

### Tabular Presentation of Data Obtained from Students Class Attendance Register

**Table1. Class Attendance register for SSII before and after the de-boarding in Fika G.S.S. Potiskum.**

Terms	No: of students in class	Mean in percentage (%)
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First term before de-boarding	50	48.4
Third term after de-boarding	75	38.2

**Source: Attendance Registers, Fika GSS, Potiskum (2024)**

The table above shows that there were 50 students in the class as of the first term before the de-boarding while, in the third term, there were 75 students in the class after the de-boarding.

This shows that there was increase in number of students in the third term than when they were in first term. For the mean percentage of the overall students’ attendance in their attendance register of first term before de-boarding, was 48.4% while in the third term the overall students in their attendance Register after de-boarding was 38.2.%. This shows that boarding school students attended class regularly in Fika Government secondary school than those students operating day in the school.

**Table 2: Class attendance register for SSII before and after the de-boarding in G.S.S. Mamudo.**

Terms	NO: of students in class	Mean in percentage (%)
First term before de-boarding	62	228.3
Third term after de-boarding	85	459.2

**Source: Attendance Registers, GDSS Mamudo (2024).**

The table above shows that before the de-boarding, in GSS Mamudo, there were 62 students in the class but after the school de-boarding, the number of students have increased to 85 in a class. And the mean percentage of students in the first term was 228.3% while their mean percentage in the third term was 459.2%. This indicates that students in GDSS Mamudo attended class regularly in third term after de-boarding than when they were in first term before de-boarding. This shows that there was high increase in number of students now in G.D.SS Mamudo than when it was operating as boarding school.

**Discussion**

The results obtained from the table 1 and 2 interpreted that before the approval of the schools de-boarding, 50 students per class were recorded in the attendance register in Fika GSS. PKM but after the de-boarding, the number of the students increased to 62. While in GDSS. Mamudo, there were 75 students per class before de-boarding but the number increased to 82

students per class. This shows that the de-boarding of schools have brought the increase in number of students' enrollment in both the above mentioned schools.

However, there were conflicting results found from the tables above on the regular school attendance by students. In GDSS Mamudo, the outcome of students attendance before de-boarding was poor compare to that after de-boarding but the reverse was the case in Fika GSS Potiskum, the outcome of the students attendance was very encouraging before de-boarding compare to that after partial de-boarding .This is because some students are doing day while others are doing boarding up to now in Fika GSS Potiskum.

### **Conclusion**

Finally, the study has investigated the effect of de-boarding of secondary schools in the study area and it has been gathered that the reason for the de-boarding of some secondary school across the state was to reduce the cost of feeding. Many advantages such as the renovation of class, furnishing of the staff room have been recorded as a result of the de-boarding. Operating as day school has brought high increase in number of students in almost all school operating as day.

But those schools operating dual system of both boarding and at the same time as day, suffered a lot for lack of regular attendance from students, likewise, they show 'I don't care attitude' towards doing assignment or homework.

### **Recommendation**

The state Government and education stakeholders should revisit those schools operating dual system of both day and boarding at the same time and modify the system to operate as single system, either as fully boarding or as fully day system. This is because operating dual system was found discouraging students from attending school and they do not reserved time for home-work or assignment, consequently it affect their academic performance.

The state ministry of education should write a reminding an emphasis letter to all school principals to communicate to their teachers about the importance of students' class attendance and doing assignments/homework as it affect their future study career.

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