

**PROBLEMS MILITATING AGAINST THE TEACHING AND LEARNING OF BASIC
TECHNOLOGY IN JUNIOR SECONDARY SCHOOLS IN EGOR LOCAL
GOVERNMENT AREA OF EDO STATE**

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UNIVERSITY OF BENIN
BENIN CITY**

FEBRUARY 2022.

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF VOCATIONAL
AND TECHNICAL EDUCATION, FACULTY OF EDUCATION, UNIVERSITY OF
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THE AWARD OF BACHELOR OF SCIENCE (B.Sc Ed) DEGREE IN TECHNICAL
EDUCATION**

FEBRUARY 2022

CERTIFICATION

This is to certify that this project work on “The study of problems militating against the effective teaching and learning of Basic Technology in Junior Secondary Schools in Egor Local Government Area of Edo State” was carried out by **Manfred Oghenefego OKWE**, with Matriculation number, **EDU1804551** in the Department of Vocational and Technical Education, University of Benin, Benin City.

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DEDICATION

This work is dedicated to Almighty God for his grace and love that kept me throughout my stay in the school.

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The researcher is greatly indebted to God Almighty, my profound gratitude goes to my supervisor S.B Abusomwan for his mentorship, guidance and support, he contributed in no small measure in the actualization of this research work. God bless you and your family. The researcher appreciation goes to my beloved parents Mr. and Mrs Okwe, my siblings Agape, Norah, Jothan for their support all through my stay in the university. I love you so much, thanks for your support. He appreciates you all and million thanks for the love. Also my friends, Jason, Praise, Katharos, Osasu, Jesse, Tovia, Success, Fruitful, Francis, Solomon, O.Z, Blessed, Daniel, Chinedu, Moses, for their love and support, God bless you all Amen.

To all my course mates, the love family UNIBEN you are all appreciated and God bless everyone who has helped me during my stay in the school. God bless you all and we shall give Praises and thanks at the end. Amen.

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ABSTRACT

This study investigated the problems militating against the effective teaching and learning of Basic Technology in selected Junior Secondary Schools in Egor Local Government Area of Edo state. The purpose of carrying out this study includes to determine the factors responsible for poor performance of students in Basic Technology, to assess the condition of services of technical teachers, to address the need for student's guidance and counseling in school, to assess the effectiveness and efficiency of basic technology teachers and to find out strategies that can be used to minimize the problems encountered in teaching and learning of basic technology in junior secondary schools.

The methodology employed for the study is the descriptive survey research design and the population of the study was made of selected junior secondary schools' students in Egor Local Government Area of Edo State. The instrument used for the collection of data was the questionnaire. The data were analyzed with simple percentage method.

The findings of the study revealed that the attitudes of teachers and students, the lack of materials, poor workshop and inadequate workshop equipment's has been a major effect on effective teaching and learning of basic technology in Junior Secondary Schools. The emendation was drawn base on the findings of the research

CHAPTER ONE

INTRODUCTION

Background to the Study

The coming of Western education to Nigeria through missionaries marked the beginning of Western education in Nigeria. The missionaries regarded education as an important tool to spread Christianity, Education was used as an instrument for Evangelism and Proselytion. The missionaries visited Lagos and Benin obtaining the permission of the king (Oba) of Benin to teach his son and the sons of the other number of chiefs the rudiments of Christian faith. The missionary school's curriculum was overweighed with religious knowledge, such as Singing of hymns, recitations of the catechism, Creed and the Lord's Prayer as well as reading, writing and Arithmetic. The hope waddel institute Calabar, which was founded by the church of Scotland mission, This combined secondary grammar school and teacher training with industrial education, This was a starting point for Industrial education in Nigeria. Basic Technology, formerly known as introductory Technology was structured to assist basic school learners to develop interest in Technology. The aim is that by the end of junior secondary School, which is presently known as basic 9, technological appreciations would have been actuated and continuous foundation laid for the learner's into a vocation of their choice. This is in accordance with the statement in the national curriculum of Junior Secondary Schools (1998). Furthermore the curriculum agreed that the subject, Basic technology is to be offered in Junior secondary Schools in order to diminish the unLawarencss of technology, and giving learner's a solid foundation for national development and inspire an increase in skill acquisition. The title introductory Technology as a subject came with the introduction of the now defunct 6-3-3-4 system of education. However with the current 9-3-4 system of education the title changed to basic technology. The curriculum for the new

system is the subsuming or technical of primary science and integrated science to form a formidable unit known as basic science and technology. This combination helps to prepare a child adequately to undergo studies in the main line of science.

The national policy on Education (FRN), (2004) defines basic technology education as an aspect of education, which leads to acquisition of practical and applied skills as well as basic scientific knowledge. It is also a subject that deals with the fundamentals of engineering and technology. In order to diminish the unawareness in relation to Technology and help lay a solid foundation for affirmative national development, Basic technology has been accorded a place in the school curriculum as a core subject like English and Mathematics.

Objectives of teaching and learning of basic technology subject in Nigeria includes

1. To provide pre vocational knowledge for further training in Technology.
2. To provide basic vocational literacy for day to day living to the learners.
3. To stimulate creativity. (FRN), (2004).

Critically examining the objectives and essential role of basic technology in the development of a Nation. We would observe that it will be impossible to teach and learn basic technology effectively without first identifying and addressing problems inherent in it's teaching and learning it would require the availability of basic technology teachers, standard workshops, equipment and tools for carrying out practical activities in the school.

The federal government in November, 2007 launched a new curriculum known as the basic education curriculum for primary and Junior secondary Schools. The new curriculum is said to be addressed amongst other things such as Issues of re-orientation, poverty eradication,

critical thinking, entrepreneurship and life skills. The nine years of basic thinking, technology education curriculum is therefore a restructuring and reengineering of the revised core curriculum for primary science and introductory Technology science for junior secondary Schools currently in use.

In the selection of the content for the new basic technology curriculum, globalization, information and communication technology (ICT) and entrepreneurship were the three major issues considered to be crucial in the development of a child, important to the nation and influencing contemporary world of knowledge.

Therefore, in the aspiration for identification with contemporary development globally, it has become inevitable in Nigeria to incorporate with Contemporary relevant and vital contents into the school curriculum. These have been relevant and vital infused into every class of Basic 1-9.

The objectives of the new basic education curriculum in science and technology are also spelt out this to enable learners. Develop interest in science and technology. Apply their basic knowledge and skills of science and technology to meet societal needs.

Take advantages of the numerous career opportunities offered by the study of science and technology. Getting prepared for further studies in science and technology.

Statement of the Problems

Basic technology education in the selected junior secondary Schools in Benin, is yet to fully reach it's potentials and engender full vocational Competence among students in Egor Local Government Area of Edo State, Benin. After graduation of students studying basic technology from the Junior secondary level of education, they hardly exhibit simple and basic technological

skills hence they fail in most of the problems and challenges they face when they get to higher institutions (Universities, Polytechnics) of learning. With the lack of knowledge of technology and poor standard workshops arrangement, lack of competent instructors, poor guidance and counselling and vast curriculum, all of these results to some of the factors militating against the performance of students in basic technology in the Junior secondary School level. The questions addressed are as follows.

- What effect does the curriculum has on the performance of the students in basic technology?
- What does the availability resources for the teaching of basic technology has on the students?
- What effect does the motivation of technical teachers have on the performance of the students in basic technology?
- What effect does effective guidance and counselling have on the performance of the students in basic technology?

Purpose of the Study

The main purpose of the study is to investigate the problems militating against teaching and learning of Basic Technology. Junior Secondary Schools in Egor Local Government Area of Edo State, Specifically this study sought to:

1. Determine the factors responsible for poor performance of Students basic technology.
1. Assess the condition of services of Technical Teachers.
2. Address the need for Students Guidance and Counselling in schools.
3. Assess the effectiveness and efficiency of Basic Technology Teachers.

4. Find out strategies that can be used to minimize the problems encountered in teaching and learning of Basic Technology in Junior Secondary Schools.

Research Questions

The following Research Questions were raised to guide the study.

- i. What are the factors responsible for poor performance of students in Basic Technology?
- ii. To What extent are the services of Technical Teachers effective teaching and learning of Basic Technology?
- iii. What is the rate at which Basic Technology Teachers teaches the Students effectively and efficiently'?
- iv. What strategies could be used to minimize these challenges encountered in the teaching and learning?

Significance of the Study

The investigation of the study will state how each of the beneficiary will benefit to enable education policy makers in government, administrators of schools, classroom teachers, industries and the society at large to be aware of the problem of student's poor performance in Basic Technology in the selected Junior secondary School level of education, which if not tackled with care can hinder move towards the country's Technological advancement. The outcome of the study will help technical teachers to adjust and correct their lapses and improve on the efforts made so far for better performance. Data on adequacy of teacher will help the ministry of education to plan or recruit adequate qualify number of quantified basic technology teacher to the schools. Most importantly, Students will benefit from the results of this study immensely in

that they will seek proper counselling for purposeful project in the respective career choice in life. Finally, the results of this study will be off great benefits to practicing Technical Education Teachers to be.

Scope of the Study

This study is directed at investigating the problems militating against effective teaching and learning of Basic Technology in selected Junior secondary Schools in Egor Local Government Area of Edo State, This will also cover issues such as factors that affects effective teaching and learning, Technical Teachers knowledge and intuition of the subject. The effects of work done to help students have more insight of the subject

Operational Definition of Terms

Administrator: The one who administers affairs, who directs, manages, executes, or dispenses, whether in civil, judicial, political or Ecclesiastical affairs.

Basic: Elementary, Simple. Fundamental, A leading or primary principle, rule, law, article, which serves as the ground work of a system as an essential part.

Education: The process of imparting knowledge skills and Judgment. Urevbu: defined education as a process of human learning which knowledge is impacted, faculties trained and skills developed.

Evangelism: This is the act of sharing of something new in order to convince someone to join or otherwise accept it.

Policy: This is a principle of behavior, conduct thought to be desirable or necessary especially as formally expressed by a government or other authoritative body.

Proselytion: This is the act of attempting to convert people to another religion, belief or opinion.

Teachers: This is a person who teaches, especially one employed in a school.

Technical: This is pertaining to the useful or mechanic art to any academic legal, science, engineering, business. A person that is technically minded, adept with science and technology.

Technology: The organization of Knowledge for practical purposes.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter is intended to review literature relevant to this study and will be carried out under the following sub headings:

- Theoretical Framework
- Concepts of Basic Technology
- Concepts of Learning and Teaching
- Concepts of Teaching Methods
- Teachers Attitude Towards the Subject
- Students Attitude Towards the Subject.
- Poor Laboratory Facilities, Lack of Maintenance of Equipment's and Tools
- Review of Related Empirical Studies
- Summary of related Literature Reviewed

Theoretical Framework

The theoretical framework which this study is based on is Behaviorism theory of learning by B F Skinner This theory was adopted because it does not only help leaners see the relationship between behavior and reinforcement but it also helps the understand mediating structures and students' emotions with learning.

Behaviorism

Behaviorism is a world view that assumes a learner is essentially passive responding to environmental stimuli. The leaners start of on a clean state and behavior is shaped through positive reinforcement and negative reinforcement. Both the positive and negative reinforcement

increases the probability that the antecedent behavior will happen again in contrast punishment (both positives and negative) decreases the likely hood that the antecedent behavior will happen again Positive indicate the application of the stimuli, negative indicates the withholding of a stimuli. Learning is therefore defined as a change in behavior in the learners. Lots of (early) behaviorist work was done with animals, e.g., (Pavlovs dogs) and generalized to humans. Behaviorism precedes the cognovits world view. It rejects structuralism and is an existence of logical positivism.

Concepts of Basic Technology

Basic technology before now was formerly known as introductory technology. Basic technology is designed in accordance with the new curriculum for basic technology developed by the Nigerian education research and development council (NERDC) for the nine year basic education programme. It was structured to assist learners to develop interest in technology. The aim is that at the end of junior secondary school, technological appreciation would have been attained and solid foundation laid for student entrance into a vocation of their choice. This is in harmony with the statement in the national curriculum for junior secondary schools (1998). Amongst others, it states that in order to reduce ignorance about technology, help lay solid foundations for nation development and for increase in skills acquisition, the subject of basic technology is to be offered in junior secondary schools. Basic technology is one of the pre-vocational subjects studied in junior secondary schools.

It is made up of other subjects like drawing, applied electricity, woodwork, metal work, basic electronics and ceramics. It is also a core subject among pre-vocational subjects which include academic practical study of materials and source of energy with the intimate invention of applying technology from study to provide Comfortable and satisfactory environment for man

(Onwuzurigbo 2007). The study of basic technology has helped to diminish ignorance of technology, it gives opportunity to students to use tools and machines that are used in the industrial sector, and it provides skills that help students handle any piece of work given to them. Unwameiye (2006) reported that through basic technology students are assisted to explore various area of technology towards making intelligent career choice. The objectives of basic technology in secondary schools is to make sure that students have general knowledge about the technological tools and this will expose them and make them interact intelligently in the society. The transmission of basic skills and concepts and the foundations of higher order thinking skills and creativity can be facilitated through the innovations for teaching and learning basic technology. At junior secondary schools, basic technological arouses the student's interest in order to determine the capabilities. Basic technology also aims at exposing students to the full knowledge of technological tools as stated earlier. This is the general knowledge required by all students so as to become enlightened in the fundamental knowledge of technological tools, appreciate the contribution of technological tools, for the growth of society and help them to have a wider horizon. Prepare the students for further training in technology courses in the University. In order for basic technology to be effectively studied in junior secondary schools, secondary schools, innovation must be made and to that extent technologist came up with ideas that will help in effective teaching and learning of basic technology in junior secondary schools. Basic technology needs sufficient availability of instructional facilities for effective and efficient implementations of the programme. Proper management of basic technology workshop is also an important factor in the teaching and learning of the subject. This assertions by Ezeocha (1990) as he stated that, it must be understood that the workshop management is not just a mechanical chore involving only material things and inanimate systems, it is much concerned with the

people involved and influenced by this aspect of management as things, forms and systems. If the management involves human being as noted by Ezeocha, it means that everybody involved must contribute to its success and the management process and organization must guarantee safety and healthy environment. Increase in skills acquisition is usually attained when workshop facilities are well managed (Nwachukwu, 2001). With better management techniques, basic technology teachers will utilize workshop facilities in more beneficial ways. This means that with proper teachings and learning of basic technology, knowledge of basic technology will be achieved better and it will serve its objective in the academic achievement of the student.

Concept of Teaching and Learning

As teachers, we tend to think that teaching is all about teacher and our roles, in fact, the most important aspect of educational process are the students and what they learn and this leads us to consider what we mean by 'learning. As you read the educational literature and more specifically, educational psychology you may find many differences in theories and definitions.

Concept of Learning

Learning is about a change, the change is brought about by developing a new skill, understanding a scientific law, changing an attitude. The change is not merely incidental or natural in the way that our appearances changes as we grow older. Learning is a relatively permanent change usually brought about intentionally, when we attend a course, search through a book, or read a discussion paper we set out to learn. Learning is an acquired process and it involves acquisition of knowledge skills and/ or abilities. Kadiri (2004) opined that learning is a process that an individual acquires as a result of maturation. Other learning can take place without planning for, e.g. by experience. Generally with all learning there is an element within us often wishing to remember and understand why something happens and do it better next time.

Learning therefore result in a change of behavior because it is evidence dependent for learning to have taken place they should be evidence or manifestation of such learning.

Main Learning Theories

- The behaviorist (behaviorism)
- The Neo behaviorist (Neo behaviorism)
- The Gestaltisis (insight)
- The cognitivists (cognitive development)
- The Humanist (active nature of learners)

Learning Models

We are often faced with questions such as, why use models? How to teach? How students learn? Answers come from experience of many people over many years in form of models. Such models can be used by any teacher depending on the content e. g. Pedagogical approach (teacher dominated learning situations).

Concepts of Teaching

Teaching is a set of events, outside the learners which are designed to support internal process of learning. Teaching is instructions outside the learner. Learning is internal to learners. You cannot motivate others if you are not self-motivated. Motives are not seen but, behaviors are seen.

Learning is motives and behavior but only behaviors can be seen, learning is internal, performance is external

Concepts of Teaching Methods

Teaching methods do not seem to be important because there is no evidence to favor one method over another remarked, Robertson (2002) as in Kadin (2007).

The popular teaching method was imitation and the purpose was to prepare the child for adult life. Children on their own cannot learn but rather they should imitate adults. But education is not only for the preparation of adult life but to liberate the mind, the heart and to develop a complete human being that can be rational and possess a sound interpersonal relation. The role of a teacher is to assist in any way possible for the preparation, presentation, association, systemization and for the application of ideas.

Teaching methods is a way of funding ways by which ideas can be organized or can facilitate the organization of ideas.

Teachers Attitude towards the Subject

Coppock (2008) states that individual satisfaction stems from doing a job well through the exercise of personal capability is inhibited by the present system of education of knowledge and generally neglects the formation as solutions of problem doing, marking and organizing constructive and creative activity of all sorts. Basic Technology teachers should be trained to be creative in order for them to teach basic tech giving room for mediocre and unperturbed attitudes of teachers. For example, a graduate of accounting asked to teach basic tech without having fundamental knowledge about the subject.

Students Attitude towards the Subject

A certain amount has been done on the attitudes of school children towards school subjects. And the result of the study has revealed that there is a complex and their achievement in school. According to O' Connely (2003) a teacher who encourages his students with remark such as ' I expert better work from you. Daniel', and this is what I would expect from you Susan is unconsciously encourage them which indices them (the student) to develop favorable attitude toward the teachers subjects, O' Connely further say that pupils thinking for school, conditions their attitudes towards certain school subjects. Tenebaum (2008) discovered that a learner's attitudes are perhaps more important than the actual of mastery of subject matter. However Tenebaum (2015) expresses his regret by saying the school system have paid minor attention to the attitude and emotions which inevitably arise as simultaneous products of the teaching process. Buls (2002) asserts that pupils with negative attitude towards a subject or teacher do not learn with the same degree as with pupils with more positive attitudes. He is of the view that the importance a pupil attaches to a subject will determine the effort he/ she will put into studying the subjects, Terry (2012) wrote, favorable attenuation effort are normally obtained by treating employees as human being, encouraging their growth desires to excel, recognizing work well done and ensuring fair play. He assumes that the teacher should show positive attitude through creation of activities of interest in the class room, encouraging the students, varying their methods and motivating them generally.

Inadequate Instructional Materials, Lack of Maintenance of Equipment's And Tools

Effiong (2005) stated that another problem inhibiting the development of basic technology in Nigeria is inadequate textbooks, Workbooks, and other teaching

aids. Resources materials convey learning expenses to students and often determine the structure for Basic and technology curriculum. They introduce students into ideas and information about basic technology in a meaningful and realistic manner.

Resources materials in this case include textbooks, workbooks, and other basic technology materials. As a result of the newness of the basic technology books, specifically with Nigeria background are very few and not usually available in bookstores. This has hampered the effective teaching and learning of basic technology hence the aim of the programme has failed to achieve a positive result in the academic achievements of secondary school students.

Presently, there are no basic technology equipment's in most secondary schools offering basic technology talk more of sufficient equipment according to UNESCO (2004). Maintenance involves maintaining items, articles, buildings, furniture and equipment's as much as possible in their original condition. There are difference between maintenance and improvement. As a school is used, the staff and students do not see the need to maintain the school building and equipment's to reflect their original conditions. Often, experience has shown that this has demand on alterations in the original conditions of the facilities to where this is done.

As observed by Peretomode (2008), there is no maintenance in the school system at all level except when a major disaster occurs as in the case of rainstorm that the government moves into effect repair. This opinion therefore is appropriate for the Nigerian educational system.

Review of Related Empirical Studies

These empirical studies were relevant to the study and so were reviewed. Umaru (2011) attempted to determine the influence of instructional materials on the academic performance of students in agricultural science in secondary schools in Kwara state. In the

process, the researcher examined the availability of instructional materials, its adequacy and relevancy, factors affecting the use of instructional materials on student's academic performance in agricultural science. Four research questions were raised while four hypotheses were formulated to help guide study.

This study adopted the survey research design and so thirty (30) government and private secondary schools were used for used. It has the population of 8,142 agricultural science students and 73 agricultural science teachers. The random sampling technique was used to select a total of 306 students and 30 agricultural science teachers. The instrument used for the collection of data was the questionnaire designed by the researcher for the teachers and students of agricultural science. The expert judgment approach was to validate the instrument. The data collected for pilot study was used to calculate the reliability coefficient, the data using split half coefficient (r) which gave 0.87 contingency Chy square statistical two was used in testing the hypotheses at 0.05 level of Significance. The analysis reviewed that good and relevant text books were the instructional material available to be used to influence students' academic performance in agricultural science. That instructional material should possess characteristics of visibility, simplicity, attraction, clarity.

The teacher's qualification and experience were major factors affecting the use of instructional materials to influence student's academic performance.

Ahmed (2015) examines that problems associated with teaching failures and learning of business studies in public secondary school in Yola North local government area of Adamawa state, the researcher sourced the population of some secondary schools within the metropolis such as GDSS, Doubeli, GMMC, Yola, CGDSS, etc from which samples were selected. The

design of this study was a descriptive survey and data collected were statistically analyzed using mean and standard deviation.

Ahmed (2015), findings of the study reviewed that business studies teachers do not teach properly and are unable to motivate students to study the subject, more also, they are not adequate and effective.

Government should employ competent and qualified business studies teachers and should provide funds for the building of more classrooms and typing pools where students can practice typing and shorthand drills.

Anya (2016) examines the strategies for improving teaching and learning of basic technology in secondary schools in Onitsha south local government area. The study employs the population of 100 teachers in secondary schools. Questionnaire was the main instrument for data collection the researcher makes use of frequency and mean for data analyses. The major findings of the research that appropriate instructional materials, effective organization of instructional materials and methodology strategies such as demonstration methods, discovery methods, problem solving methods, motivation technique, questioning technique, peer teaching and effective assessment and evaluation, good teacher students relationship, and good class room environmental teacher good class room environmental conditions are potent strategies for improving the teaching and learning basic technology. Infrastructural facilities instructional material as well as unavailability of machines, equipment's and tools to facilitate learnings on the parts of the students.

Omijie (2015) carried out a study on analysis of the challenges of voc and tee education in government science and technical education. In government science and technology college

Benin, Benin City. The population consists of vocation 1 and vocation 2 classes which has a total number of 750 students Omijie found out that there is an acute shortage of equipment's, laboratories and facilities. He copied that this is the major reasons why many technical teachers abandon the teaching field for greener pastures because on non- provision of adequate laboratories, equipment's, workshops and classrooms. The present study is different from that of Omijie but related in terms of the availability of equipment's and location.

Summary of Literature Reviewed

From the review of related literature, there are evidences that teaching and learning of basic tech are impeded with various constraints which include teaching methodology, availability and adequacy of teaching and learning resources, students' attitudes amongst others as a result of these student's educational achievements is not up to expectation.

Basic technology which is the combination of various aspects of various aspects of technology is required by students to enable them solve problems, be creative and think logically and expansion of knowledge and organizes the world around them.

Despite the charges that has been observed in basic technology since its introduction has continued to face a lot of problems. These problems include the high rate of failure in schools and junior secondary schools examinations. The failure at this level of education has gone away in affecting performances in science subjects at qualifying exam like SSCE. WAEC, NECO and placement examinations like UTME (Unified Tertiary Matriculation examination) and PUTME (Post UME) which are now computer based test (CBT).

For the vision of 2020 to be a reality the development of human resources in education and basic technology is an urgent issue to be addressed. Through there have been strings of

workshops in service training all aimed at manpower development by the national teaching institute (NTI) and (STAN) (Science teachers association of Nigeria and other relevant agencies. All these aforementioned efforts have not yielded its desirable fruits. Hence, the actual practitioners of the skills which is the teacher and the recipient (students) has to be involved in an attempt to proffer likely solutions to these challenges encountered in teaching of basic technology. Basic technology emphasis on the fundamental unity of science and the unity is deeply dependent on science a proper approach towards integrated science is a life key to the world because according to the Nigerian integrated science project (1920) integrated principles are intended to produce among other things a course which;

- is relevant to student's needs & experience
- Stresses the fundamental unity of science
- Lays adequate foundation of subsequent specialist study and
- Adds a cultural dimension to science education.

CHAPTER THREE

METHODOLOGY

This chapter discusses the Methodology used for the study and they are presented under the following Sub- headings:

- Design of the Study
- Population of the Study
- Sample and Sampling Technique
- Instrumentation
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis

Design of the Study

The research design used in this study was the descriptive survey research ascertained the effects of the independent method. This approach ascertained the effects of the independent variables (problems militating against) on the dependent variable learning of Basic Technology). This approach is widely employed for its role in factual findings in study of this nature.

According to madukonam (2004) descriptive survey research design seeks to collect detailed information that describes the nature of existing conditions. This research design is directed at collecting data from a segment of the population which will be generalized.

Population of the Study

The population of this study consists of three selected junior secondary Schools in Egor Local Government Area of Edo state. Majorly using the public schools in Egor Local Government which comprises of 20 Public Junior secondary Schools.

Sample and Sampling Technique

The sample size of one hundred and twenty Students was used for this study which was from the three selected Junior secondary Schools in Egor Local Government Area of Edo State.

Instrumentation

The instrument used for the study is the questionnaire (A self-structured questionnaire by the research). Which was titled in the topic? The questionnaire was divided into two parts, Section A and B. A was used to elicit information on the demographic data of students. While B was used to elicit information on the Research Questions.

Validity of the Instrument

To ensure the validity of the instrument, the expert judgment approach was employed, draft copies was given to the project supervisor and other experts in Industrial Technical Education department of vocational technical Education in Faculty of Education. Their suggestions was integrated into the final production of the questionnaire.

Reliability of the Instrument

The research reliability level was determined using the split half method of estimating the reliability of the research instrument used. The Instrument was administered to a group of one hundred and twenty (120) Junior Secondary School students selected from the targeted population.

The reliability of the research was based on the use of Pearson product correlation statistics.

Method of Data Collection

Method of data collection was through the aid of a questionnaire. The questionnaire was administered by the researcher. The respondents were implored to respond to the items freely and objectively as it affects them after a thorough explanation by the researcher on the purpose of the questionnaire. The questionnaires were collected on the spot having been answered by the respondents and subjected to analysis.

Method of Data Analysis

The descriptive statistics such as frequency count and simple percentage were used in analyzing the collected data.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS

This chapter presents response to administered questionnaires. Based on the scope of study the result obtained from the analysis are interpreted and discussed. The presentation is done in line with the questions raised and examined. The researcher made use of simple percentages to analyze data used in this study, the items were grouped in order of their relatedness to the research question. A total of 120 questionnaires when distributed among 3 Junior Secondary Schools in Egor Local Government Area. The result of their analysis was discussed under the following sub headings.

- Bio Data Analysis
- Analysis of data based on research questions
- Discussion of findings

Bio Data Analysis

Table 1: Sex of Respondent

Sex of Respondent	Frequency	Percentage
Male	52	43.5
Female	68	56.5
Total	120	100

Table (1) above shows that there were 120 respondents in the sample of which 43.5% are female students.

Table 2: Age of Respondents

Age of Respondent	Frequency	Percentage
9-11	48	39.9
12-14	34	28.5
14 and above	38	31.6
Total	120	100

Table (2) above shows that there were respondent from age 9-11 which has a percentage of 39.9% respondents are from ages 12-24 while 31.6% of respondent are from ages 14 and above.

Table 3: class of Respondent

Class of Respondent	Frequency	Percentage
JSS 1	49	40.8
JSS 2	38	31.6
JSS 3	33	27.6
Total	120	100

ANALYSIS OF DATA BASED ON RESEARCH QUESTIONS

Research Question 1:

What are the factors responsible for poor performance of students in Basic Technology?

Table 4: Factors responsible for poor performance of student in Basic Technology.

S/N	Item Statement	SA	A	D	SD	Remark
1	Do you have note book and textbook for basic technology?	30 25%	22 18.3% 43.3%	50 41.7%	18 15% 56%	D
2	Do you like the subject basic technology?	20 16.7%	48 40% 56.6%	30 25%	22 18.3% 43.3%	A
3	Does your basic technology teacher come early to class when you have the subject basic technology?	28 23.3%	22 18.4% 41.7%	40 33.3%	30 25% 58.3%	D
4	Is there basic technology workshop in your school?	18 15%	14 11.7% 26.7%	36 30%	52 43.3% 73.3%	D
5	Are there adequate tools and equipment in your basic technology workshop?	15 12.5%	17 14.1%	38 31.7%	50 41.7%	

In table (4) above, items 1, 3, 4, 5 shows disagreement while item 2 shows agreement which indicates that the student like the subject basic technology education, but due to lack of materials, poor teacher attitude, lack of workshop and workshop equipment, the performance of the student is poor and not pleasing. In order words, negligence from the parents, teachers and the government is a major cause for the poor performance of students in basic technology.

TABLE 5: Service of Technical Teacher

S/N	Item Statement	SA	A	D	SD	Remark
6	Does your basic technology Teacher uses instructional materials when teaching	30 25	32 25.7%	44 36.6%	14 11.7%	A
7	During lessons does your basic technology teacher come to class to teach and explain	32 26.7%	24% 20%	36 30%	28 23.3%	D
8	Do you do basic technology often times a week.	30 25%	22 18.3%	39 32.5%	29 24.1%	D
9	Does your teacher make use of the workshop when teaching basic technology topic e.g. wood work jointly?	28 23.3%	12 10%	59 49.2%	21 17.5%	D

10	Do you understand basic technology when your teacher is teaching?	38 31.7%	32 26.7%	22 18.3%	28 23.3%	A
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In table (5) item 6 and 10 shows agreement while item 7, 8, 9 show disagreement indicating that the services of technical teachers, even though it is not that poor also needs to be monitored by the manager in schools so as to help boost the performance of their basic technology students.

Research Question 3

What are the effect and the relevance of guidance and counselling in Nigeria Secondary Schools for technological development?

Table 6: Effects of Guidance and Counselling

S/N	Item Statement	SA	A	D	SD	Remark
11	Is a guidance and counseling service available in your school?	22 18.3%	30 25%	36 30%	32 26.7%	D
12	Does the school organize career day conference in your school?	24 20%	14 11.7%	44 36/6%	38 31.7%	D
13	Are you expose to the effects of guidance and counseling services in your school?	33 27.5%	37 30.8%	28 23.3%	22 18.3%	A
14	When you have academic problem, do you go to guidance and counseling department to talk to somebody.	18 15%	29 24.1%	32 26.7%	41 34.2%	D
15	Does the counselor help you to choose the combination of subjects that will be useful in your tertiary education?	33 27.5% 52.5%	30 25%	42 35%	15 12.5% 47.5%	A

In table (6) results, shows item 11, 12 and 14 shows disagreement while item 13 and 15 shows agreement to the research question 3, which tells us that due to lack of awareness of guidance

and counselling in schools, its effects and relevance has been minimal which in a way is a problem affecting educational development,

Research Question 4:

What is the rate at which basic technology teachers teach the students effectively and efficiently?

S/N	Item Statement	SA	A	D	SD	Remark
16	Does your basic technology teacher recommend text books and work books to you.	31 25.8%	40 33.3%	29 24.2%	20 16.7%	A
17	After lesson do you take home assignment, class work in class.	32 26.7%	45 37.5%	21 17.5%	22 18.3%	A
18	When your teacher is teaching does he/she explain well to your understanding.	36 30.	22 18.3%	38 31.7%	24 20%	D
19	Does your teacher ask previous knowledge about the topic done in the previous class?	40 33.4%	23 19.2%	34 28.3%	23 19.1%	A
20	Does your teacher assess and mark your notes at the end of the week.	18 15%	24 20%	36 30%	42 35%	D

In table (7) results shows that item 16, 17 and Agreed while item 18 and 20 are disagreed.

Although, basic technology teachers are teaching the subject but they are not passing the information properly and does not pay enough attention to the student's academic performance in basic technology.

Research Question 5.

What strategies could be used to minimize the challenges encountered in the teaching and learning of basic technology in Secondary Schools?

Table 8: Strategies to Minimize challenges encountered in teaching and learning of Basic Technology?

S/N	Item Statement	SA	A	D	SD	Total
21	Do you like to do practical work in the subject basic technology?	20 16.7%	23 19.2%	53 44.1%	24 20%	120 100%
22	Does your school basic technology workshop have all equipment and tools that will help you understand the practical aspect of the subject.	15 12.5%	23 19.1%	38 31.7%	44 36.7%	120 100%
23	Did Edo State Government provide text books for you in the school	20 16.7%	24 20%	30 25%	46 38.3%	120 100%
24	Does your school have enough and comfortable facilities to	18 15%	20 16.7%	32 26.7%	50 41.7%	120 100%

	help you enjoy the learning of basic technology.					
25	Do you spend adequate time in your school work shop when doing practical work	25 20.8%	24 20%	31 25.8%	40 33.3%	120 100%

In table 8 above, item 21 shows that 43 respondents agreed while 77 respondents disagreed to it. This might be due to lack of interest, uncomfortable environment and teacher inability to deliver the topics very well. Item 22 shows that 38 respondents agreed to the question while 82 respondents disagreed. This might be because most schools don't have basic technology work shop and their equipment's so it tends to be difficult for them to understand the practical aspects of the subject. Item 23 shows that 44 respondents agreed that Edo State Government provides text books for them in their school while 76 respondents disagreed to this. Item 24 show that 38 respondents agreed that they have comfortable facilities to help them enjoy the learning of basic technology while 82 respondents disagreed to this. Item 25 show that 49 respondents agreed that they spend quality time in their school work shop when doing practical work while 71 respondents disagreed to this.

DISCUSSION OF FINDINGS

From the analysis shown above, the findings of the study revealed from research question 1 is that, due to lack of materials poor teacher/students attitudes to the subject Basic Technology, non-availability of workshop and workshop equipment and tools, it has been concluded that these factors are responsible for poor performance of the students in Basic Technology. According to Akeem (2015) findings of study reveals that basic studies teachers do not teach

properly and are unable to motivate students to study the subject more, also work shop and workshop equipment's and tools were not adequate and effective.

Buls (2002) asserts that pupils with negative attitude towards a subject do not learn with the same degree with pupils with positive attitudes.

Research Question 2

Item 6 and 10 Shows agreement to the services of technical teachers but item 7 8. 9 shows disagreement to the statement, making their demerits over power their merits. In the findings, It shows that even as the teacher where trying as much as they can to give their best to the student, that still have major setbacks that is not making their work show positive results in the academic performance of the students they teach.

According to Terry (2012) wrote, favorable attenuation efforts are obtained by teaching employees as human being: encouraging their growth desires to excel, recognizing work well done and ensuring fair play. To try to curb this unpleasant results from the services of technical teachers. Basic technology teachers should be trained to be creative in order for them to train students effectively in knowing the subject content.

Research Question 3

The effects of Guidance and Counselling has been minimal and unproductive, this is a problem in secondary schools, Although these schools are exposed and aware of guidance and counseling the effect have not yielded any positive or pleasing results in the academic performances of students in secondary schools in Egor Local Government Area. This is due to lack of recognition and importance of guidance and counseling, this is because most schools have confined counselors to teach in classrooms instead of fulfilling the purpose there are supposed to fulfill in the lives of the students. Unavailability of counselors to students, lack of

materials and facilities to help counselors do their works effectively, all this are factors and constraints that is affecting counseling's in Egor Local Government Area of Edo state.

Research Question 4

Basic technology teachers are trained to impart the knowledge of basic technology to students, the challenging the employability of these trained teachers is the wrong and unqualified teacher are employed to teach the subject that requires practical trainings and skills before it can be handed over to unskilled teachers to teach in the process causing learners interests to the subject minimal and poor, making learners shy away when they do not understand what they have been taught. The government and private school owners should employ trained basic technology teachers so that they can effectively and efficiently teach the subject and also help improve the performance of the students positively. In this case the government should that the right teachers are that the right teachers are employed to teach this subject basic technology and also provide materials that will help teachers pass knowledge easily to students.

Research Question 5

These strategies when employed will help minimize this problems encountered in teaching and learning basic technology. Government should provide comfortable and adequate amenities to schools, provision of highly equipped workshop to school to help build students interest towards the subject, parents should provide the necessary materials, required textbooks to help improve the performances of their academic performance. When there is effective organization of objectives and methodology, good teacher student's relationship, conducive and comfortable classrooms and workshops, adequate workshop equipment's and tools for the learning of basic technology.

Apart from students, teachers are the largest and most crucial inputs of educational system that influences to a great extent the quality of educational output (Fadipe, 2003). In the Nigeria policy on education (2004) it is stated that no educational system can rise above the quality of the teachers. Hence, the governments must as a matter of urgency employ qualified and trained teachers across the various secondary schools in Egor Local Government Area of Edo State to teach basic technology effectively since it's the fundamentals necessary to know before emerging into the field of Technology.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study examined the problems militating against the teaching and learning of Basic Technology in Junior Secondary School in Egor Local Government Area of Edo State. This study raised and answered the following question.

What are the factors responsible for poor performance of students in basic technology?

To what extent are the services of technical teachers effective in teaching and learning of basic technology?

What are the effects and relevance of guidance and counseling in Nigeria schools for technological development?

What is the rate at which basic technology teachers teach the students effectively and efficiently?

What strategies could be used to minimize the challenges encountered in teaching and learning basic technologies in secondary schools?

From the study the major findings are:

- Unavailability of materials, poor teachers and students relationship, negative attitudes by teachers and students, lack of workshops and workshop equipment's, un-conductive classrooms, all these are factors responsible for poor performance of students in basic technology in Egor Local Government Area.
- Lack of skilled and qualified teachers teaching technical education, poor knowledge and poor teaching methodology by untrained teachers has affected the services of technical

teachers and it has not yielded positive results and outcomes in the teaching and learning of basic technology in secondary schools in Egor Local Government area of Edo State.

- The research also reveals the minimal effects of guidance and counseling due to lack of recognition by the government and school owners that made them put guidance and counseling teachers into classrooms instead of counseling rooms and lack of counselors in schools, thereby making the students ratio to the counselor greater which does not help the counselor reach out to the students evenly all these are factors that has minimized the effects of guidance and counseling, which has been unproductive in the educational system in Nigeria all these cause are affecting its effects in secondary schools in Egor Local Government Area of Edo State.
- The research findings also reveals that employment of wrong teachers to teach the subject, inability to transfer the knowledge of basic technology has in a way minimized the rate at which teachers teach the students effectively and efficiently in secondary schools in Egor Local Government Area of Edo State.
- Finally, research findings revealed that the government should employ the right and qualified teachers, provision of comfortable and adequate infrastructural facilities, parents motivating their children by buying them necessary materials that will help them gain more knowledge about the subject, teachers should plan their lessons using effective organization of objectives and methodology, teachers should motivate their students, build good relationships with them, and also the government should motivate teachers and make their work less stressful by providing the necessary and valuable materials that will help in improving the performances of the students, this strategies will help

minimized the problems to the minimal level and help improve the performance of secondary students in Egor Local Government Area of Edo State.

Conclusions

Problems Militating against Teaching and Learning of Basic Technology, Junior Secondary Schools in Egor Local Government Area of Edo State has been discussed. Based on the findings of this study it has been concluded that.

- Teachers and students attitude has a major effect on the performance of junior secondary students in Egor Local Government area of Edo State.
- Employment of unqualified and untrained teachers have a significant effect on the problems affecting the effective teaching and learning of basic technology in secondary schools in Egor Local Government Area of Edo State.
- Lack of recognition of guidance and counseling, counselors teaching in class, large ratio of students to counselors are also causes of problems that are affecting the effects of guidance and counseling and has caused poor performance of junior secondary schools in Egor Local Government Area of Edo State.
- Lack of infrastructural facilities, instructional materials, employment of untrained basic technology teachers, unavailability of workshops and workshop equipment's, unorganized methodology of teaching the subject basic technology has support that all these problems has minimized the strategies of reducing the problems militating against effective teaching and learning of basic technology in selected junior secondary schools in Egor Local Government Area of Edo state.

Recommendations

Based on the findings of this study and the conclusion reached it has been established that the attitudes of the teachers and students has a major effect on the performance of the students in junior secondary schools.

Therefore the following recommendations have been made:

- Teachers should have a positive change of attitude to the subject and help motivate the students to have interest the subject so as to reduce poor performance in basic technology.
- Parents should provide necessary materials for their children to help build their interest in the subject, so they can easily understand and develop positive attitude towards the subject.
- Government should provide comfortable infrastructural facilities, instructional materials to teach basic technology, highly equipped workshops and employment of qualified teachers to help improve the performance of junior secondary students In Egor Local Government Area.
- Also the services of guidance and counseling should not be overlooked and must be paid attention to by the government, school owners, parents and students so that the students can benefit from the services and help in prove their performance in basic technology.
- Teachers and parents should create time to inspect and go through their students\ children academic works to know where they are lacking and help put them back on track.
- The classroom management should also be balanced, so that the students can be well attended to. Overcrowded classes should be avoided.

APPENDIX
DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION
FACULTY OF EDUCATION
UNIVERSITY OF BENIN
BENIN CITY

Dear Respondent,

Questionnaire on the study of problems militating against effective teaching and learning of Basic Technology in selected Junior secondary Schools in Egor Local Government Area of Edo State.

I am a final year student of the above named department. I am researching on the study of problems militating against effective teaching and learning of Basic Technology in selected Junior secondary Schools in Egor Local Government Area of Edo State. Kindly assist in assessing the questions below by ticking (\checkmark) to indicate your answer s). All information will be treated with utmost confidentiality and used for academic purpose only.

Okwe Oghenefego Manfred

Please tick (√) in the box provided against options to any question that best matches your choice or responses

Key

SA	Strongly Agree	4
A	Agree	3
D	Disagree	2
SD	Strongly Disagree	1

SECTION A

Bio Data (Demographic Data)

Age:

Sex:

Name of School:.....

School Type: Single Boys (), Single Girls (), Mixed School ()

Class:.....

Religion: Christian (), Muslim (), African Traditional Religion ()

SECTION B

S/N	Item Statement	SA	A	D	SD
	What are the factors responsible for poor performance of students in basic technology?				
1	Do you have note books and text books for Basic Technology				
2	Do you like the subject Basic Technology				
3	Does your Basic Technology teacher come early to class when you have the subject Basic Technology				
4	Is Basic Technology Laboratory in your school				
5	Are they adequate tools and equipment's in your Basic Technology workshop				
	To what extent are the Services of Technical Teachers effective in teaching and learning Basic Technology?				
6	Does your basic technology teacher uses instructional materials when teaching				
7	During lessons does your basic technology teacher come to class to teach and explain or just teach and leave				
8	Do you do basic technology often times in a week				
9	Does your teacher make use of the workshop when teaching basic technology topic e.g. wood work jointly				
10	Do you understand basic technology when your teacher is teaching				
	What are the effects and the relevance of guidance and counselling				

Nigeria Secondary schools for technological development?					
11	Is Guidance and Counselling Services available in your school				
12	Does the school organize career day conference in your school				
13	Are you exposed to the effect of guidance and counselling services in your school				
14	When you have academic problems, do you go to Guidance and counselling development to talk to somebody				
15	Does the counselor in your school help you to choose the right combination of subject will be useful in your tertiary education				
What is the rate at which basic technology teachers teach the student effectively and efficiently?					
16	Does your basic technology teacher recommend text books and work books to you.				
17	After lesson do you take home assignment, class work in class				
18	When your teacher is teaching, does he/she explains well to your understanding				
19	Does your teacher asks previous knowledge about the topic done in the previous class				
20	Does your teacher assess and mark your note at the end of the week				
What strategies could be used to minimize the challenges encountered in the teaching and learning of basic technology in secondary school?					
21	Do you like to do practical work in the subject basic technology				

22	Do your school basic technology workshop have all the equipment and tools that will help you understand the practical aspect of the subject				
23	Did Edo State Government provide text books for you in the school				
24	Does your school have enough and comfortable facilities to help you enjoy the learning of Basic Technology				
25	Do you spend adequate time in your school workshop when doing practical work				

REFERENCES

- Achieng, B.O. (2012) Influence of Institutional Capacity on Academic Performance of Students in Secondary School in Usija Division Bondo District Kenya, A master Thesis, University of Nairobi.
- Adekola, R. (2008), Technology and Learning, How Schools Map Routes to Technical Promised Land. Retrieved from: www.mebacademia.edu. On 19th April.
- Adeu, M.A. (2002), Estrategias para mejorar el Rendimiento académico de los adolescentes (Strategies for Improving Academic Performance in Adolescents). Madrid; Piramide.
- Ahed, (2002), The Pacific Journal of Science and Technology 12 (2).
- Aigboje, D.G. O.J.A. and Omoregie, E.O. (2005) Allocation and Utilization of Resources in Schools in Agbenta: Fundamentals of Educational Management Agbor Central Books.
- Chaybor, A.E. (1964): "Revolution in science and technology teaching" ministerial conference held in Lagos Maya, PP. 118-119.
- Edigin, J.O. (1994): "Teaching of Introductory Technology in secondary schools: A problematic Venture" The Nigeria Teacher Today. Vol 3, Nos. 122, pp 135-140.

Fafunwa, A.B. (1924) History of Education in Nigeria London: George Allen & Union...

Osokoya, I.O. (1995) History and Policy of Nigeria Education in the world.

FGN. (2004), National Policy on Education. Paper presented at the Federal Ministry Education.

NERDC Press. Lagos.