**CONSTRAINTS OF EFFECTIVE TEACHING AND LEARNING OF TECHNICAL EDUCATION**

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**ABSTRACT**

This study was carried out to examine the constraints of teaching technical education in secondary schools in Enugu East Local Government Area. Specifically, the study examined if non-availability of finance is affecting students enrolment in technical education .also, if technical education is really helping individual to be self-reliance. Furthermore, if inadequate infrastructural facilities is affecting the development of technical education. And finally, the problems faced by teachers in teaching technical education to secondary school students. in selected secondary schools in Enugu East Local Government Area. The study employed the survey descriptive research design. A total of 77 responses were validated from the survey. From the responses obtained and analysed, the findings revealed that non-availability of finance affecting the development of technical education. Also, technical education is really helping individual to be self-reliance. Furthermore,there are inadequate infrastructural facilities affecting the development of vocational education, and finally,there are problems faced by teachers in teaching technical education to secondary school students

The study recommend That infrastructural facilities should be improved upon in other to make technical education more appealing to both teachers and students. Also, That technical education teachers should undergo periodic training , in other to meet up with the new standard of teaching the subject. And finally, That government should employ qualified teachers , who can confidently teach technical education.

**CHAPTER ONE**

## INTRODUCTION

**1.1 BACKGROUND OF STUDY**

Vocational/ technical education are among the vital tools an individual can use to be developed. It is a training for useful employment in trade, industries, agriculture, business and home making etc. the emphasis on vocation/technical; education is to prepare one for self reliance. American vocational association (1971) sees vocational subjects as those designed to develop skills, abilities, understanding, attitude, work habit and appreciation encompassing knowledge and information needed any workers to enter and make progress in employment on a useful and productive basis. It contributes to the production of good citizens by developing their physical, social, civic, cultural and economic competencies. The advent of formal education in Nigeria neglect vocational and technical education entirely. Despite all efforts made to recognize it, yet little or no attention was given to it. No meaningful development was made in the area of vocational education until 1981, when the National policy on Education was published. Due to total neglect, vocational education suffered a major decline in quality, number, policy and directive in Nigeria due to the total neglect. It was after the oil boom era 1970s that it dawned on the nation that there was acute scarcity of skilled manpower.

Osuala (1999) emphasized that the term either technical or vocational education has no single universally accepted definition but what is common is the various definitions is its goals and objectives that remain the same. Technical education has been defined as that phase of education which seeks to help the

people, students and the populace acquire specific mechanical or manipulative skills required in industrial arts or applied science.

The national policy on education (2004), stated the goals and objectives of vocational and technical education as follows:

(1) to provide trained manpower in applied science, technology and commerce particular at sub-professional grades.

(2) to provide technical knowledge and vocational skill necessary for agriculture, industries, commercial and economic development.

(3) to give training and impact the necessary skills leading to the production for craft-man, technicians and other skilled personnel who will be enterprising and self-reliant.

(4) enable our young men and women to have intelligent understanding of the increasing complexity of technology.

(5) to give an introduction to professional studies in engineering and other technologies.

Yole (1986) reported that occupational areas within which vocational and technical educational education subjects fall largely into are: Agriculture, Home economics, Business and mechanics, capacity, countering, Arts etc. However, Agriculture and carpentry remain improper choices because they do not attract much interest amongst the students. Anyakoha (2000) emphasized that Home economics is a unique and dynamic field of study. Its central theme is the improvement of lives of individuals, field of study1 that draws knowledge from many disciplines including science and humanities in order to fulfill its objectives. Bing a vocational subject that focuses on the welfare of individuals, families and societies, Home economics contributes meaningfully to the solutions of the problems of the society such as unemployment, poverty, malnutrition (Olcitan 2000).

Osuala (1992) also stressed that Home economics as a vocational subject is required to equip the learner with the knowledge of skill and attitude necessary for threw effective management of the home, it requires skills, wisdom, dedication, care, intelligence, unusual patience and very strong power of observation and imagination. Therefore, a student that has these qualities should study vocational/ technical subjects especially Home economics rather the reverse is the case. Federal Government wants vocational/technical education to occupy a prominent position in our secondary schools, Nigerian schools pay little or no attention to vocational/technical subjects. Teachers and students seem not to understand what it is all about and consequently, develop some contempt and aversion for the subjects. As such of vocational/technical subjects remain unhealthy. Many of the occupations and trades are regarded as ignoble and unbecoming. An average Nigerian parents does not want his son to earn a living as a full time farmer, a watch-repairer, a plumber, a house painter, for many Nigerians, these jobs are

for the poor and underprivileged. Padunny (1994) stressed that typically the higher the occupational status of the students parents, the positive their attitude towards science. This is to say that higher occupational parents would want their child to be doctors, engineering etc. without considering if the child would actually read science subject to achieve that. The influence of parents in the development of students interest in vocational/technical subjects cannot be over emphasized this is because parent seem to have much influence on children’s choice of educational career. The socio-economic status of parent of a child determines the type of career one choose to do, some parents have biased and rigid thoughts regarding the occupational choices of a child/children. Parents forgot that every type of work, once it is beneficial to the individual and society, is worthy and noble. (Nwankwo 1996). The result of this is a quasi calculated attempt to frustrate the good intention of the federal and state government about vocation/technical education. The quality sign of potential success in students vocational pursuits require the identification of the students interest, aptitudes, abilities, values and judgments, if these will be discovered, it requires a guidance counselor who will give the appropriate occupational information to the student with proper exposition to various opportunities available in the would of work. It is not surprising that students are not interested in vocational/technical subjects. Osuala (1992) opined that, at the heart of our society and economic problem is a national attitude that implies that vocational/technical subjects are designed for somebody else’s children and is meant primarily for the children of the poor. This same attitude is shared by students. Thus, it makes the students lack interest in the study of vocational subjects particularly Home economics. The skill that teachers exhibit in teaching influences the student enrolment in vocational/technical subjects. Onwuka, (1981) postulated that the method of approach is very vital in any teaching/learning situation. The way the teacher presents the subject matter to the learner may make a student like or dislike a subject. Nwogwugwu (1989) pointed out the need for blending theoretical and practical work in teaching of subjects as to stimulate students interest more especially on vocation technical subjects. The greatest single factor in teaching learning id the teacher. No technique, no method, no device, no gadget can guarantee success, but only an effective qualified teacher can adequately execute these. (Okafor, 1987). Thus the greatest motivating device yet discovered is the highly motivated teacher of students are to be involved actively in teaching and learning process in a way of projects, field trips, directed field activities etc, note

learning and subject centered orientation should be changed to a more practical and child centered out-look. The increase in qualities and quantities of outputs should be primarily due to improvement in the quality of the teacher. It is therefore the trust of this study to explore the influential factors that affects the students on the study of vocational subjects in Nigerian secondary schools. According to Akenbi (2000) vocational education is the acquisition of basic skills, which enable an individual to be gainfully employed in any sectors of the economy. For any country to obtain any level of development, vocational education must be put into consideration. Western education started in Nigeria when the Christian Missionaries came. During this period, they were mostly interested in teaching the word of God, converting souls and preaching the gospel. Some people were not able to fellowship, some could not walk, see or hear, therefore, they were taught how to make basket and this occupied them, aids were given to them, active/alive and to make them feel at home. Before the arrival of the missionary, vocational training had started at home, children helping their mothers to cook, boys helping their father at farm. The colonial administration participated in vocational/technical education given as a separate plan outside that vocational education involves such field as agricultural education, business education, marketing or distributive education, trade and industrial education. Vocational education comprises of vocational and technical training, which is given in schools a class under public supervision and control. The development of skills is perhaps the foundation on which vocation education is laid the assertion has been authorize to the unanimous agreement of the three groups sample to the fact that vocational education is designed to develop skills abilities understanding and attitude of individuals. This agrees with the definition of committee on research and publication of American vocation association (1954). The primary purpose of embarking on skill development is to enable someone to do some work. Olatain (1984) says vocational education refers to systematic learning experience, which are designed to enable individuals for gainful employment in recognized occupation as semi skilled workers or technical or professionals. It equally included guidance and counselling in connecting with training and other instruction directly related through an occupation. The benefits derives from various vocational education cannot be over emphasized. It is the pride of the nation to develop more vocational education in order to activate maximum technologically. Thorp et al (1930) in their reports they expressed the view that the aim and objective of vocational education are as follows;

1. The aim of technical education must be to provide or the requirements of industry, commerce and society and to adjust itself to the changing needs of the territory. The curriculum and organization must be adopted to meet national and local demands and must not adhere to firm and immutable forms.
2. Large number of men and women engaged in industry and commerce and in professional and auxiliary, occupation lack the specialized knowledge and training which would allow them to be efficient in their vocation and fit to accept greater resp0onsibility, the course must be arranged so they can improve their knowledge and efficiency while continuing employment.
3. Special attention must be given to the training of teachers and personnel and for institutions engaged into training of teachers particularly for secondary schools and technical institutions and for institutions engaged in the training of primary school teachers also for person engaged in social activities such as youth and community center work or in community development generally.

# 1.2 STATEMENT OF THE PROBLEM

Technical education has been known as a veritable discipline for the attainment of self-reliance and can be seen in different dimensions. The various skills acquisition centres in the state are expected to produce man power at craftsmanship and apprenticeship levels. And it has been ascertained that facilities, staff, finance etc are either lacking or not sufficiently provided to achieve the expected desires. Although many technical schools and other skill acquisition centre like college of education, polytechnics are available for the above purposes what is not clear now is that to what extent is “vocational education helping in peace development ”.however,several factors have been identified as the problem of teaching technical education such as, but not limited to , getting qualified teachers to teach technical education has been somewhat difficult as , the government is not employing teachers for the subject, even so , its no longer on the academic curriculum, most technical education facilities are dilapidated, there are no instructional materials to teach the subject, students do not find it interesting as it used to be, there is no motivation for teachers who teach technical education etc. All these and more will be discussed in the study.

# 1.3 PURPOSE OF THE STUDY

The objective of study is to investigate the the Constraints of teaching technical education in secondary schools it is also to investigate the following specific objectives;

1. To know if non-availability of finance is affecting students enrolment in technical education .
2. To know if technical education is really helping individual to be self-reliance.
3. To know if inadequate infrastructural facilities is affecting the development of technical education.
4. To know the problems faced by teachers in teaching technical education to secondary school students.

# 1.4 RESEARCH QUESTIONS

The following research questions were asked for the purpose for the attainment of the above.

1. Is non-availability of finance affecting the development of technical education
2. Is technical education really helping individual to be self-reliance?
3. Are inadequate infrastructural facilities affecting the development of vocational education?
4. Are there problems faced by teachers in teaching technical education to secondary school students?

# 1.5 SIGNIFICANCE OF STUDY

# This study will be of great importance to this development of new and old vocational and technical education schools in Enugu East Local Government Area. The study will also contribute immensely to the exploration of the vocation education in Enugu East Local Government Area and suggest possible solution to the problems identified. Also, it will be significant to heads and director of the existing vocation and technical education schools because it will expose other unnecessary roles and problems that led to the total collapse of subsequent vocational and technical schools in order to avoid them and ensure efficiency and maximum prosperity.

# 1.6 SCOPE OF STUDY

The study will examine the Constraints of teaching technical education in secondary schools,. hence will be delimited to selected secondary schools in Enugu East Local Government Area.

**1.7** **LIMITATION OF THE STUDY**

During the course of this study the researcher could not fully carryout the findings due to non-availability of textbooks and materials in the library, inadequate finance.

The researcher could not explore sources, which would have immensely contributed to the knowledge of the readers of this work.

# 1.8 OPERATIONAL DEFINITION OF TERMS

**Technical education:** This is the education or sort of formal training programme that trains students for work in a particular

**CHAPTER TWO**

**REVIEW OF LITERATURE**

**INTRODUCTION**

Our focus in this chapter is to critically examine relevant literatures that would assist in explaining the research problem and furthermore recognize the efforts of scholars who had previously contributed immensely to similar research. The chapter intends to deepen the understanding of the study and close the perceived gaps.

Precisely, the chapter will be considered in three sub-headings:

* Conceptual Framework
* Theoretical Framework

**2.1 CONCEPTUAL FRAMEWORK**

**TECHNICAL EDUCATION**

Technical and vocational education is used as a comprehensive term in the educational process involving, in addition to general education, the study of technologies and related sciences and acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (FGN, 2004). Okoro (1993) quoted in Agapu and Andural (2007) and Momoh (2012) defines vocational education as a form of education whose primary purpose is to prepare persons for employment in recognized occupation. In the same vein he defines technical education as a post secondary vocational training programme which the major purpose is the production of technicians. The terms technical education and vocational education are often used interchangeably but, they are separate and distinct terms. For the purpose of this paper there is the need to do some clarifications. Vocational education refers to skill based programmes which are designed for skill acquisition at lower level of education. Vocational education programmes focus on specific vocations for entry into defined workplace. Technical education, in the other hand is not designed for any particular vocation but provides general technical knowledge. This type of education prepares people for entry into recognized occupation at a higher level but usually lower than the first degree. In fact technical and vocational education is usually a merger of technical education and vocational education i.e the inclusion of basic technical and scientific knowledge with the skill based vocational programme. According to Uwaifo (2009), technical education is the training of technically oriented personnel who are to be the initiators, facilitators and implementers of technologically development of a nation. In his own opinion, this training of its citizens on the need to be technologically literate would eventually lead to self reliance and sustainability. He observed that technical education more than any other profession has direct impact on the development of the country. Again, technical education contributes so much ranging from electrical and electronics technology, metal work technology, mechanical/automobile technology, building technology, woodwork technology etc, technical education is practical oriented education which makes it unique in its content and approach thereby demanding special attention. Unfortunately, despite all the glaring contributions of technical and vocational education in our nation, Nigeria is yet to accord this type of education the attention it deserves. This is one of the major reasons for the rising unemployment, poverty and unabated crimes in the society today. This paper is an attempt to explore some issues, challenges and the way forward for vocational and technical education in Nigeria.

**ISSUES OF TECHNICAL EDUCATION**

Vocational/technical education is designed to offer people the opportunity of improving themselves in their general proficiency, especially in relation to their present or future occupation. Nuru (2007) opined that changes in any nation’s economy is required to prepare young people for the jobs of the future of which technical and vocational education have crucial roles to play. May (2007) observed that technical and vocational education are very much still neglected in the aspect of adequate funding, personnel, modern facilities, staff motivation which consequently are robbing the country of the economic development to be contributed by graduates of technical/vocational education. Asogwa and Diogu (2007) maintained that there is an urgent need for the Nigeria’s attention to be redirected towards self reliant and sustainable means of livelihood which technical education provides. Most analysts agree that employers of labour today demand more skills than they did in the past (Yang, 2008). Oranu (2010) also observed that there are many factors that have contributed to the ever rising demand for skills in the labour market which include the following; technological and organizational change, trade, deregulation of key industries and the decline of unions. The too much emphasis on University education in Nigeria has always reduced the economic opportunities of those who are more work oriented than academics (Ojimba, 2012). Not everybody needs a University education. Who that would employ them if everybody becomes a University graduate? Many of the so – called “expatriate engineers” receiving huge sum of money in dollars for road construction in Nigeria are graduates of vocational colleges but in Nigeria, the issue of technical and vocational education is not taking seriously. The nation’s poverty level has increased to about 70% that many Nigerians now live on less than one dollar a day. As earlier on stated, higher institutions in Nigeria lack the tools and machines to train students to acquire the skills needed by employers of labour. The challenges of vocational and technical education are quite enormous

**CHALLENGES OF TECHNICAL EDUCATION:**

Technical and vocational education cannot contribute greatly to the reduction of abject poverty, hunger and unemployment because it is handicapped by numerous challenges (Eze, 2013). Oranu (2004) observed that the good intentions of successive Nigerian governments about TVE programmes are still fraught with a lot of challenges which include;

**Inadequate Funding of Technical and Vocational Education:**

No doubt, vocational technical education has made some notable impacts on the Nigerian society, especially in respect to the products of the training programme who are contributing their quota to the economic growth and development of the nation through various industrial establishments (Odu, 2013). Inadequate funding of vocational institutions has caused the turning out of half baked graduates because there is no fund to build and maintain workshops, laboratories or even purchase modern equipments (Aghenta, 1985). Staffing of Vocational technical education is generally inadequate because of poor funding. Experienced and skilful teachers may not be employed. Those that are employed, because of poor remuneration do not stay long in the teaching profession, but drift to some other more lucrative jobs especially in the industries and abroad. Consequently, inexperienced and unqualified technical teachers are employed thereby lowering academic standard, resulting to wastage in the achievement of technical education goals (Agbionu, 2003). Inadequate funding of Vocational technical institutions has often caused a lot of difficulties in the payment of staff salaries. It has also resulted to the retrenchment of teachers or retirement of teachers at early age. Furthermore, Momoh (2012) and Mohammed (2001) observed that government lack of commitment to technical education and inadequate funding has weakened technical education in Nigeria. A direct consequence of this is that while the number of technical education institution is dwindling that of general education is growing in bounds (Momoh, 2012).

**Inadequate Facilities**:

Most technical education departments in Nigerian Universities do not have laboratories or workshop space, let alone useable equipments and where they exist, they are grossly inadequate, as the workshops only have items or equipment that were provided when the departments were first established of which most of them are already obsolete or grounded (Ojimba, 2012). It is quite unfortunate and surprising too to know that most technical education departments still depends on engineering workshops and lecturers to teach technical education concepts in this 21st century. The available facilities, programme as at today are inadequate quantitatively and qualitatively and besides they are out- dated. Oryem Origa (2005) opined that only 40% of institutions of Higher Education in Nigeria have laboratory or workshop space for technical education programmes. The remaining 60% do not have laboratory or workshop space and this has resulted to the low quality of technology programmes in our higher institutions. He also observed that the few schools that have laboratories, experience acute shortage of laboratory equipment and supplies. The conclusion is that the situation is partly the reason it has been very difficult to carryout experiments effectively for students. This has also made teaching and research in science and technology difficult and therefore the country was producing insufficient and ill prepared technical education graduates for driving the technological and socio-economic development of Nigeria. The shabby performance of technical education graduate is no longer news as very important projects in the country, particularly, the construction industry are now run by technicians and craftsmen from neighbouring West African countries (Nworlu – Elechi,2013).

**Brain Drain**:

This refers to the movement of technical teachers and lecturers of technical education which are very much needed for the socio-economic and technological development of Nigeria from one University to the other or to other professions where they feel will offer them better conditions of service. According to Bassi (2004) about 45% of all Nigerian professionals including technical educators have left the Nigerian shores over the years. Between 1997 and 2007 alone, Nigeria lost over 10,000 middle level and high level managers to the western economies. About 500 lecturers from Nigerian tertiary institutions have continued to migrate each year, particularly to Europe, America and other African countries. 4. Staff Training and Retention: Training of academic staff is a continuous exercise to ensure consistent improvement in the quality of their products. The training can be acquired either locally or overseas. Usually, local training within the country is cheaper than overseas training but more strenuous because of inadequate facilities, literature and distractions rising from the need to meet the necessary demands. Overseas training requires a lot of foreign exchange but the enabling environment exist to achieve success in a record time. However, overtime, it has always been difficult to get the trainees back to their respective countries after the completion of their study. The salary and service benefits paid to technical education teachers in Nigeria is about the lowest in the world (Ojimba, 2012). This leads them to migrate to other countries for better pay.

**Curriculum of Technical Education:**

The curriculum of a subject with practical content is generally organized into an average of 67% for the theoretical classes and 33% for workshop. Olunloyo (2002) noted that one of the issues confronting the design of appropriate curriculum for technical education is preparing students for the shift from the fordist to Information Communication and Technology (ICT) paradigm in technology practice. The low pace of industrialization and technological growth in Nigeria can be attributed to the widening gap between science and technology as a result of the inability of technical education to adequately utilize the scientific ideas to promote technology. This suggests the need to overhaul technical education curricula in Nigeria. The overhauling of the curricula may not necessarily translate to the production of highly literate technical education experts of ready-made graduates for the industry which may result in rapid industrialization or economic growth of the nation unless solutions are proffered to some constraints that may militate against positive outcomes, but will adequately equip our youths with the relevant skills needed for their daily living. Ojimba(2012) identified six problems associated with the current curricula in Nigeria. They are:

1. The curricula are based on foreign model which has evolved under ideal conditions (staff, equipment, infrastructure, training opportunities, etc) that are not easily duplicated in developing countries.
2. There is a basic lack of textbooks in the area and most of the available textbooks have foreign background and often illustrated with examples from outside the local environment.
3. There is usually a shortage of highly competent indigenous teaching and support staff with sufficient practical experience of technology.
4. The curricula are adjudged to be too academic and overloaded with intellectual content in pure science and mathematics at the expense of basic engineering and technology.
5. Inadequate provision of humanities, social sciences, business management concepts and entrepreneurial skills development. Because of the inadequate preparations of the students for the industry, some employers retain the graduates to make them productive in their organizations.
6. The teaching approach follows the conventional method of transferring knowledge across through the lecturer reading out to the students, who would then take down notes. The educational system continues to place considerable value on this method of teaching.

**Apathy of Political holders/law makers:**

Education generally including technical and vocational education programme has been grossly neglected in Nigeria. Technical educators have the greatest challenge of convincing the law makers on the reason they should give priority attention to the programme in resources allocation. Many options of getting positive results have been advocated at different fora namely; lobbying, participation of technical educators in governance, wooing etc, yet the government is still playing a lopsided attitude to the proper development of the programme in Nigeria. Therefore, Nigeria will ever remain a technologically backward and dependent nation if this negative attitude and trend is not reversed.

**Nigerian Value System**:

In Nigeria today too much emphasis is placed on University qualifications not minding whether the holder possesses the required knowledge and skill. But in advanced societies those with technical degrees are highly regarded. In fact, the value system in those countries depend on the person’s skills and knowledge, and not on the stack of academic degrees one has. In the public service, graduates of technical education are often discriminated against and their career prospect limited. For this reason, secondary school leavers and parents prefer University education to technical education (Nworlu- Elechi, 2013).

**FUNCTIONAL VOCATIONAL AND TECHNICAL CURRICULUM IMPLEMENTATION**

Nwachukwu (2001) stated that certain factors are crucial for functional vocational and technical education curriculum implementation. The factors are enumerated and explained as follows:

1. The vocational and technical education curriculum must be humanized. The

curriculum for vocational and technical education in Nigeria should not be something foreign to technical college students, and should not be chosen just because it is traditional. The vocational and technical education curriculum must speak of today, of real-life problems facing our communities and society and the process of living in its entire ramification. Nwachukwu explained that humanizing today's vocational and technical Education means making the curriculum responsive to the present situation of Nigeria. Humanizing vocational and technical education means training the youths for sustainable and self-reliant empowerment in Nigeria. Materials chosen in this vocational and technical education curriculum to be taught and utilized for learning should be derived from the need and environmental requirement of Nigeria for sustainable youth empowerment in the nation.

2. Trainees must be ready to receive what is taught. The ability of the trainees to learn depends on that student's readiness to learn. In any teaching-learning situation, there is a period when effective learning takes place. This learning period varies among individuals even when they are exposed to the same learning environment. Many factors are known to influence the readiness to learn among students. The factors include age, family background, nutritional status, fatigue or lack of it. Others are belief and attitudes of learners. It therefore means that the art of good teaching lies in the ability of the teacher to find out those learning related problems, which students exhibit during classroom and workshop instruction, and utilizing the knowledge about it to structure the curriculum of vocational and technical education in Nigeria.

3. The learning experiences must provide the development of the ability to think. In vocational and technical education, thinking is the process of realizing and finding solutions to problems. It has been defined as all those cognitive actions taken by an individual in advance of an action as a preliminary to deciding among alternative thinking. According to Nwachukwu (2001), it characterized the whole process of solving a problem, which is very essential for handling problem-solving situation or for carrying out tasks in vocational and technical education situations.

4. The vocational and technical education curriculum must be based on and contain experiences intrinsic to the life of the learner. There are stages in vocational and technical education and when students pass through the pre-vocational to the vocational concepts and characteristics, they develop new ideas, shape their values and can by so doing, solve their individual problems. These students can constantly undergo the process of exploring and testing out ways of getting to where they want to go. In this manner, these students will learn, and this learning process requires direct thinking. These students can in this process discover new materials relevant to the solution of their problems. Such materials must be intrinsic to them because they discovered the materials themselves and found it useful for solving their immediate problems. These intrinsic materials will remain internalized in the students because they have fixed the knowledge into the repertoire of their abilities and understanding.

**FACTORS MILITATING AGAINST IMPLEMENTATION OF FUNCTIONAL TECHNICAL EDUCATION IN NIGERIA**

The problem facing the effective implementation of functional technical education is numerous and ranges from the existence of technical education. Oranu (1990) stated that lack of physical facilities is the problem of technical education in Nigeria. On the problem existing in the technical colleges and the system of education, it is lack of materials and necessary equipment for effective teaching of vocational and technical, science and technology subjects (Aromolaron,1985). Okoro (1991) stated that the facilities, which include the buildings, equipment, tools and technical college materials available, are inadequate for effective use and implementation of vocational and technical curriculum in technical colleges. The state of inadequate equipment and facilities for teaching and effective implementation of vocational and technical curriculum in technical colleges has been a source of concern to various people and government at various times. Functional vocational and technical education curriculum for sustainable youth empowerment in Nigeria is clearly stipulated in the National Policy on Education (2004). The policy stated that equipment and other facilities in technical institutions will be utilised also for evening classes and for adult and non-formal education, for instance in establishing training programme for groups of traders and road-side mechanics. In this way, maximum use would be made of this equipment from their use in normal day class. The realization of the objectives of functional technical education curriculum depends to a large extent on different factors. The attainment and actualization of functional technical education for sustainable youth empowerment was also emphasized by the National Policy on Education (2004). The policy is aimed at:

a. Providing trained manpower in applied technology particularly at, craft, advanced craft and technica1 levels.

b. Provide the technical knowledge and vocational skills necessary for agricultural,

commercial and electronic development.

c. Give training and impact the necessary skills to individuals who shall be self-reliant economically.

When discussing problems militating against proper implementation of technical education, the teachers and students always come to mind because it is the teacher that uses the technical equipment, books and facilities in teaching the students during the implementation of the technical college curriculum. Msue (1992) undertook a study of the problem facing vocational and technical college and secondary school in Benue State in Nigeria. Msue noticed that the shortages of teachers to effectively use these available tools and equipment in terms of quality and quantity available in schools are the major problems facing vocational and technical curriculum. He recommended that there should be need to train teachers to effectively make use of the technical equipment in technical colleges.

**PROMOTING TECHNICAL EDUCATION CURRICULUM FOR SUSTAINABLE YOUTH EMPOWERMENT**

Ezekwe (1990) made his contribution towards the promotion of technical, science equipment utilization and technological, management of materials in Nigeria. In this regard, in collaboration with UNESCO, he hosted the international workshop on the management of science equipment and technology in Africa, in February 1990. The workshop recommended the establishment of an African Network of training institutions in science and technology equipment management and utilization for sustainable youth empowerment in Nigeria. Technical education issues were addressed by the international project on Technical and Vocational Education (UNEVOC) at Yaba College of Technology, Lagos located in the largest urban centre in Nigeria, It was established forty-seven years ago with a present population of about 14,000 full-time and: part-time students in 5 schools and 24 departments offering courses in engineering, environmental studies, applied sciences, management and business studies and arts and painting technology. The National Board accredits about 98% of its programme for technical education (NBTE). Spare parts of equipment have been difficult to procure for germane training programme and implementation of curriculum of sustainable youth empowerment. The procurement of genuine spare parts to assist the implementation of the programme to cover the ever increasing number of youths yearning for technical education is difficult. It became difficult to meet up with the demand for equipment in the technical college, because spare parts may not be easy to obtain for replacement of damaged parts during implementation and practical training in technical college.

Okorie (2000) stated that many machines for training in the technical colleges may be out of use for a long time until parts of the equipments are ordered from country of manufacture. The Federal Government has already taken a gigantic step in this direction by setting up the Federal Science equipment manufacturing centre at Enugu, Enugu State. The establishment of second one in Minna, Niger State was another attempt made by government toward achieving the objectives of functional technical education for sustainable youth empowerment in Nigeria. The centres were expected to manufacture over 200 items for science equipment and technology tools to meet all level of educational system from primary to tertiary institutions. Abdullahi (1990) further stated that as an ongoing project, the federal science equipment centre, Ijanikin, Lagos and those set up by the states and some universities organize workshops on repairs, utilization, maintenance and improvisation of technical equipment for sustainable youth empowerment in Nigeria.

**FACTORS CONTRIBUTING TO LOW ENROLMENT OF STUDENTS IN VOCATIONAL AND TECHNICAL EDUCATION**

**Non-Availability Of Finance To Set Up New Vocational And Technical Schools**

Financing vocational and technical education appears untraceable and apart from vocational and technical education programme, there are other educational programme, but if technical education or vocational education is considered crucial for our technological needs then a reappraisal of national priorities is required so as to give vocational education the place it deserves, it might be necessary for technical college to be attached also to business houses and industries for practical training of students through attachment industries can subsidized vocational and technical education. Government can encourage industries to take programs by offering tax and incentives, which can be ploughed into manpower development.

Non-Availability of Staff and Personnel

Any teacher or staff with one of these qualifications will be able to teach vocational and technical education courses;

1. University degree B.Sc/B.Ed etc
2. NCE Vocational and technical education
3. Higher national diploma, HND
4. Training Certificate of Technical Educational Diploma

The importance of qualified teachers or staff in the technical schools cannot be over emphasized especially in vocational education courses. According to Thomas (1974) reforms may build new schools to make changes in the structures and curriculum, teaching method or aids at the end, everything will depend on the teacher who will be responsible for supplying them. Akanbi (1983) says scarcity of teachers or staffs has led to a lot of social harzard by taking appointment elsewhere, only to be called part time teachers who would not teach with their full-0time dedication to duty. With all these in mind, there are so many unqualified vocational education, teachers in our universities, colleges of education, polytechnics and technical school today.

The Economic Role for Vocational Education

There are two great assets that enter into the production of wealth of a nation which are:

1. Natural resources
2. Human labour.

The conversation and full utilization of these asset depends on vocation training is required to conserve development, or natural resources the agriculturist are well trained making the same and intelligent user of the natural resources. Ehiametalor et al (1985) says, vocational education is needed to prevent was of labour. In many organized community we would find three basically characteristics form of waste of labour power.

1. The arm of the unemployed or the in voluntary idle.
2. The imperfectly employed or untrained
3. The improperly or acquisitively rather than the productivity or employed.

Government Participation In Vocational Education In Schools

The government is a major detriment in any institutions stand with regard to effectiveness in teaching, the Edo State government provides teachers and other infrastructures to be needed and also determine the curriculum planning and implementation. Ajonkape (1983) explains that the attitude of government and society towards the teaching profession and conditions of teachers in this country is the least most sorrowful discouraging, the teachers are one of the most poorly paid professionals workers, yet the services which the teachers rendered are indispensable to a nation. Oyenebe (1984) says creation of sectional schools go along way to refer intellectual opportunities of potentials students, some vocational education courses like business education, agricultural education, home economics education, fins and applied arts education etc would prefer to be learnt in the early hours or the day rather than learning them under the scourging sun.

**STRATEGIES FOR REVAMPING VOCATIONAL TECHNICAL EDUCATION IN NIGERIA**

The vision statement of NPE (2004) at secondary and tertiary levels is to provide trained manpower in applied science, technology (Ghouri, et al., 2010) and business (Ghouri & Khan, 2012) particularly at craft, advanced craft and technical levels; provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development and to give training and impart the necessary skills to individual who shall be self-dependent economically. At the tertiary level, graduates are expected to acquire both physical and intellectual skills, which will enable them to be self-dependent and useful members of the society. To meet the policy goals of NPE, and the challenges facing the VTE in Nigeria, vocational technical education should adhere to the following strategies:

**Institute flexible, workable and adaptable programme**:

For Nigeria to address the socio-economic changes currently taking place worldwide, VTE must be ready to amend and revise some of its curricula where necessary so as to effectively become a driving factor for the implementation of the adjusted socio-economic development strategies. Sansaliyu quoted by Alaku (1999), laments the gap between policy decisions in the field of education and implementation of those polices. In the opinion of the writer, Nigeria policies on VTE must revolve around vocational technical education that is flexible and adaptable to capture the rapid changing demands on ICT and as well support tourism, hospitality, agro processing among others.

The globalization including that of job market now calls for vocational education curricula, which will ensure that VTE graduates demonstrate work competencies that will meet global quality expectations. Vocational technical education according to Manfred and Jennifer (2004) has an important role to play in raising the quality of vocational graduates, increasing job satisfaction and motivating workers as well enhancing productivity. The achievement of these will help to create employment and enhance economic performance. Nigeria should emulate Israel who for instance generates a lot of money and creates a lot of employment opportunities for her citizens through agriculture and tourism. Nigeria is far better blessed in agriculture, tourism and other vocational jobs. Nigeria has a lot of places where she can habilitate, make money and create employment opportunities. What Nigeria required are technical and managerial skills.

Vocational technical education should strive to adopt strategies to produce graduates who are innovative and adaptable to changes in the world of work. Vocational technical education graduates should strive to be job creators rather than job seekers who roam around the street of Nigeria with dozens of certificate in endless search for jobs. This implies the production of competent vocational graduates who can adapt to changing economic situation in Nigeria. Vocational technical education should keep its gate open, flexible and learner oriented since one of the factors contributing to poverty in Nigeria is lack of equal access to education, and lack of employment/vocational skills. The Nigeria government should also devise a viable strategy of making its policies on VTF programmes a very continuous exercise from the planning, implementation and evaluation stages. Continuity and full implementation of the programmes lead to better success while disjointed programmes lead to disjointed success and perpetual exit of the programmes.

**Ensuring high quality and appropriately skilled vocational professionals**:

For vocational technical education to meet the economic, social and political trends of the time, the nation must use qualify vocational training professionals/teachers in implementing vocational technical education programme. These professionals are pivotal in promoting vocational technical education polices/reforms and strategies in Nigeria. The professionals have all the necessary skills, abilities and capabilities (Manfred and Jennifer, 2004) for carrying out the programme since the quality of vocational technical education depends mainly on the quality of VTE teachers and trainers. The use of professionals helps in keeping pace with the rapid changes in the work environment and the content of the programme especially now that instruction is fast shifting from pure instruction to include learning facilitation and innovation. The use of non-professionals in the execution to vocational technical education policies has led to disjointed implementation and diversion of the greater percentage of the fund mapped out for the training. Disjointed implementation and diversion of fund has led to non-achievement of the programme objectives and lack of students’ interest resulting in low enrolment and poor performance in the programme.

**Promotion and proper Coordination of education, Industry and Work Environment:**

As a matter of urgency, Nigeria needs to improve the status and attractiveness of vocational technical education by professionalizing it. Flexible and workable policies on VTE and proper recruitment pattern should be put in place, to increase skill levels, provide better access to and delivery of learning for all.

The three tiers of the government (Federal, State, and Local government) should try to create an enabling environment for vocational technical education as an integral part of government policies on youths and adult self-dependence. In line with this, Lyons, Randhawa and Paulson (1991) stated that education and training programme cannot meet national post industrial strategies with invisible hand but required the consensus effort of government, industry and labour. Although, Nigerian education planners have initiated measure to promote vocational technical education as long life learning, but coherent structure seems to be lacking. There is still need for elements of quality in the programme. The achievement of quality in VTE programme requires proper coordination, integration and cooperation among the stakeholders of education. In line with this, Obioma (2010) maintained that the earlier the National Vocational Qualification Framework (NVQF) is firmly put in place, the better it is for linking training with work and industry. The NVQF will place emphasis on competencies and functional skills that will facilitate the generation and application of a more realistic reward system for employees rather than on mere paper qualification. The image of VTE programme should be boosted through adequate and proper sensitization of the general public and the students in particular. The roles of teachers and the benefits of vocational technical education to the students and the public should be made known with a view to assuring them of the quality of the programme. The evidence of awareness of the programme, and the status of the teachers in the society seem to determine the students/trainees enrolment. Olakunri (2006) said that currently, only three percent of total school population enrolled in technical education. A total of 50 percent enrolment according to Olakunri should be aimed at. Once there is improvement in the image of vocational training in Nigeria and its flexibility in creating jobs, then the young people will rush into the programme.

The NPE (2004) set up ambitious goals of making Nigeria the most competitive and knowledge based economy through revamping of vocational technical education programme (Olakunri, 2006). Other programmes, agencies and strategies set up for the same purpose includes: Family support programme, Directorate of employment agency. National education and empowerment development strategies (NEEDS) which focus on wealth creation, employment generation, poverty reduction, elimination of corruption and value reorientation (Nigerian National planning Commission, 2004), and State education empowerment development strategies (SEEDS) among others. Proper coordination and integration of activities of these agencies, VTE and industry will help to produce graduates who are theoretically and practically balanced.

**Encouraging Continuing Vocational Technical Education:**

The greatest weakness in the execution of vocational technical education is disjointed training and lack of continuity of the programme from primary school level to tertiary school level and no-the-job training. There is urgent need for continuity in any programme or training. Nigeria is very good in formulating very viable polices and goals for the betterment of her citizens but the question is to what extent do the planners and implementers ensure that programme starts from the infancy stage to fully completed and evaluated stage without creating gaps along the line. In line with this Alaku (1999) stated that the major problem lay on the gap between policy planners and policy implementers.

During 1970s and 1980s for instance, primary school pupils and secondary school students (post primary school students) were encouraged through government policy to undertake handcraft and other skill acquisition tasks themselves as part of continuous assessment during a prescribed period of time. Today, handicrafts even in most rural areas are not taken serious. Most schools now seem to accept money in place of the crafts while some schools seems not to observe the craft periods any longer. This attitude seems to demoralize the students who would have offered skill courses up to tertiary institution and even after graduation.

**Investing in Quality Vocational Technical Education Programme:**

The acquisition of skills and competencies is very necessary for one to fit into jobs especially in this era of ICT. The three tiers of government, education stakeholders and employers should give massive support to vocational technical education programmes, by investing in the programmes. The major hindrances to the growth of vocational technical education include dearth of vocational teachers, weak capital base, poor funding, poor technology among others, which result in graduates with low skills. In line with this, Olakunri (2006) stated that the major problem militating against the growth of VTE in Nigeria is the dearth of technical teachers. According to Manfred and Jennifer (2004), industrialized countries are transforming themselves into knowledge society by investing more on human resources. This implies that productivity and competitiveness of Nigeria in the economic world order is dependent on a well educated, skilled and adaptable workforce.

**Training and learning should take Place in Authentic and Real Work Environment:**

For vocational technical education to survive in Nigeria and meet the world economic order, training and learning must take place in an environment where all the necessary tools, machines, equipments and facilities are in place and resemble the place for real work environment. What one is able to see, touch, experience and finally put into practice is better than what experience teacher with dozens of building and artificial things can put in place. It is in line with this that Peter and Willam (1999) stated that whether to build accurate representations of reality, or create consensual meanings in social activities, or personally coherent models of realities, experience is still paramount. Experience gained in a real work environment provide actively upon which the individual minds operate and should be regarded the best teacher.

**Sharing ratio of Education Trust Fund (ETF) among the Three Tiers of Higher Institutions in Nigeria**:

Nigeria is currently talking about revamping VTE using Education Trust Fund (ETF) under three phase development plan. N1.5 billion according to Olakunri (2006) has been distributed to polytechnic and colleges of education. One should therefore ask if VTE in universities are not part of the programmes. Government should therefore be universal in their sharing if actually Government want to achieve the objective of establishing VTE since the University graduates will still meet their counterparts in polytechnic and colleges of education in the same labour market and will also help to build social and economic performance of Nigeria.

**2.2 THEORETICAL FRAMEWORK**

**Cognitive Development Theory**

Piaget's theory of cognitive development is a comprehensive theory about the nature and development of human [intelligence](https://en.wikipedia.org/wiki/Intelligence" \o "Intelligence). It was originated by the Swiss [developmental psychologist](https://en.wikipedia.org/wiki/Developmental_psychologist" \o "Developmental psychologist) [Jean Piaget](https://en.wikipedia.org/wiki/Jean_Piaget" \o "Jean Piaget) (1896–1980). The theory deals with the [nature of knowledge](https://en.wikipedia.org/wiki/Epistemology" \o "Epistemology) itself and how humans gradually come to acquire, construct, and use it. Piaget's theory is mainly known as a [developmental stage theory](https://en.wikipedia.org/wiki/Developmental_stage_theories" \o "Developmental stage theories). Piaget "was intrigued by the fact that children of different ages made different kinds of mistakes while solving problems". He also believed that children are not like "little adults" who may know less; children just think and speak differently. By Piaget thinking that children have great cognitive abilities, he came up with four different cognitive development stages, which he put out into testing. Within those four stages he managed to group them with different ages. Each stage he realized how children managed to develop their cognitive skills. For example, he believed that children experience the world through actions, representing things with words, thinking logically, and using reasoning. To Piaget, [cognitive development](https://en.wikipedia.org/wiki/Cognitive_development" \o "Cognitive development) was a progressive reorganization of mental processes resulting from biological maturation and environmental experience. He believed that children construct an understanding of the world around them, experience discrepancies between what they already know and what they discover in their environment, then adjust their ideas accordingly. Moreover, Piaget claimed that cognitive development is at the center of the human organism, and language is contingent on knowledge and understanding acquired through cognitive development. Piaget's earlier work received the greatest attention.

Child-centered classrooms and "[open education](https://en.wikipedia.org/wiki/Open_education" \o "Open education)" are direct applications of Piaget's views. Despite its huge success, Piaget's theory has some limitations that Piaget recognized himself: for example, the theory supports sharp stages rather than continuous development [horizontal and vertical décalage](https://en.wikipedia.org/wiki/Horizontal_and_vertical_d%C3%A9calage" \o "Horizontal and vertical décalage).

**Skill Acquisition Theory**

The basic claim of Skill Acquisition Theory, according to Dekeyser (2007b), "is that the learning of a wide variety of skills shows a remarkable similarity in development from initial representation of knowledge through initial changes in behavior to eventual fluent, spontaneous, largely effortless, and highly skilled behavior, and that this set of phenomena can be accounted for by a set of basic principles common to acquisition of all skills". In sum, as mentioned by Speelman (2005), skill acquisition can be considered as a specific form of learning, where learning has been defined as "the representation of information in memory concerning some environmental or cognitive event" . Therefore, according to him, skill acquisition is a form of learning where "skilled behaviors can become routinized and even automatic under some conditions" . In other words, this theory assigns roles for both explicit and implicit learning in SLA. And, as a general theory of learning, it claims that adults commence learning something through largely explicit processes, and with subsequent sufficient practice and exposure, move into implicit processes. Development, within this theory, entails the utilization of declarative knowledge followed by procedural knowledge, with the latter‟s automatization (Vanpatten & Benati, 2010). According to Richards & Schmidt (2010), declarative knowledge is conscious knowledge of facts, concepts or ideas that can be stored as propositions. And procedural knowledge refers to unconscious knowledge of how an activity is done. As elaborated by Vanpatten & Benati (2010), using declarative knowledge involves explicit learning or processes; learners obtain rules explicitly and have some type of conscious awareness of those rules. The automatization of procedural knowledge entails implicit learning or processes; learners begin to proceduralize the explicit knowledge they own, and through situational suitable practice and use, the behavior becomes second nature. Ellis (2009) has referred to the following features as the characteristics of explicit and implicit knowledge. Of course, it should be mentioned that still there is no unanimous agreement over such characteristics.

●"Implicit knowledge is tacit and intuitive whereas explicit knowledge is conscious"

●"Implicit knowledge is procedural whereas explicit knowledge is declarative"

●"L2 learners‟ procedural rules may or may not be target-like while their declarative rules are often imprecise and inaccurate"

●"Implicit knowledge is available through automatic processing whereas explicit knowledge ls generally accessible only through controlled processing"

●"Default L2 production relies on implicit knowledge, but difficulty in performing a language task may result in the learner attempting to exploit explicit knowledge"

●"Implicit knowledge is only evident in learners‟ verbal behavior whereas explicit knowledge is verbalizable"

●"There are limits on most learners‟ ability to acquire implicit knowledge whereas most explicit knowledge is learnable"

●"The learners L2 implicit and explicit knowledge systems are distinct"

●"L2 performance utilizes a combination of implicit and explicit knowledge"

In Pawlak's view (2011), the transformation from declarative knowledge to procedural knowledge entails qualitative and quantitative changes in the initial declarative representation. And such changes take place through automatization and restructuring, where the former refers to "speeding up the performance of a skill, reducing the error rate and inference from other tasks" and the latter to "changing the subcomponents of knowledge and the way in which they interact". Of course, as also mentioned later on such terms are not easy to define. It should be mentioned that the great advantage of proceduralized knowledge over declarative knowledge is that it is available as „„a ready-made chunk to be called up in its entirety each time the conditions for that behavior are met‟‟ (DeKeyser 2007b, p. 98). Moreover, Ellis & Shintani (2013) have referred to the skill-specificity in Skill Acquisition Theory. That is, as mentioned by them, this theory predicts that the effects of instruction are skill-based. In other words, input-based and output-based instructions will benefit receptive and productive skills respectively.

**Human Capital Theory**

Human capital theory rests on the assumption that formal education is highly is highly instrumental and necessary to improve the productive capacity of a population. In short, human capital theorists argue that an educated population is a productive population. Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings. The provision of formal education is seen as an investment in human capital, which proponents of the theory have considered as equally or even more worthwhile than that of physical capital.

Human Capital Theory (HCT) concludes that investment in human capital will lead to greater economic outputs however the validity of the theory is sometimes hard to prove and contradictory. In the past, economic strength was largely dependent on tangible physical assets such as land, factories and equipment. Labor was a necessary component, but increases in the value of the business came from investment in capital equipment. Modern economists seem to concur that education and health care are the key to improving human capital and ultimately increasing the economic outputs of the nation (Becker 1993).

Human capital theory stresses the significance of education and training as the key to participation in the new global economy. In one if its the recent reports, the Organization of Economic Cooperation and Development (OECD), for example, claims that the radical changes to the public and private sectors of the economy introduced over recent years in response to globalization will be severe and disturbing to many established values and procedures. In another report it explains internationalism in higher education as a component of globalization. The OECD believes that internationalism should be seen as an imperative in 21st Century capitalism. This form of capitalism is based on investment in financial markets rather than in manufacturing of commodities, thus requiring dependence on electronic technology. The OECD also boldly asserts that internationalism is a means to improve the quality of education. In keeping with human capital theory, it has been argued that the overall economic performance of the OECD countries is increasingly more directly based upon their knowledge stock and their learning capabilities. Clearly, the OECD is attempting to produce a new role for education in terms of human capital subject required in globalized institutions.

Fagerlind and Saha (1997) posit that human capital theory provides a basic justification for large public expenditure on education both in developing and developed nations. The theory is consistent with the ideologies of democracy and liberal progression found in most western societies. Its appeal was based upon the presumed economic return of investment in education at both the macro and micro levels. Efforts to promote investment in human capital were seen to result in rapid economic growth for society. For individuals, such investment was seen to provide returns in the form of individual economic success and achievement. Most economists agree that it is human resources of nation, not its capital nor its material resources, which ultimately determine the character and pace of its economic and social development. Human resources constitute the ultimate basis of the wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic, and political organizations, and carry forward national development.

**Adoption of Uniform Standard of training and Certification**:

In Nigeria, there is no uniform standard in training and certification at federal, state and local government area. Formal and inform sectors have their certification patterns. This makes it impossible to integrate different vocational education training into one national system. There is need for government to have analysis of the number of VTE institutions and training centers. The essence of uniformity is to increase the mobility of training and occupations. There is also need for government to put in place proper machinery in order to standardize, monitor and control the issuance of these certificates. This will help to ensure that only the qualified candidate will be certificated, since some Nigerians for instance, buy trade test certificate with money without under-going the actual training.

**Setting up a National and Local Structure of VTE Councils:**

In order to encourage and structure participation by the general public in the vocational technical education system, a national tripartite council should be set up. The activities and structure of the nation council should be extended also to the local area. The council should be headed or chaired by VTE professional. The professionals should coordinate and monitor the overall activities and assessment of VTE in Nigeria as well as sensitizing the public and students through seminars, workshops, conference, television and radio programmes, and rural leaders’ involvement on vocational technical education campaign.

**Keeping Appropriate/Up-to-date and Indicators for Vocational Technical Education:**

Insufficient/incomplete data and indicators for vocational technical education hamper assessment of progress. A key challenge is to increase the comparability and complexity of data on VTE, the group involved, career information, employment opportunities, among others and try to integrate their assessment in a common Nigeria, benchmark. Nigeria government should strive to see that the Board in charge of VTE keeps up-to-date data regarding vocational technical education. Although, the Nigerian National Planning Commission (2004) stated that poor quality data in Nigeria is being addressed by restructuring and strengthening the Federal Office of Statistics. The extent of achievement is still unknown to the public. The level of achievement will depend on the availability of fund allocated to VTE by the three tiers of government. Government therefore should fulfill their obligations by making the much needed fund available which should be channeled judiciously to enhance quality manpower.

**Assessment Criteria:** Assessment criteria to be used should be based at least in principles, on occupational rather than educational standards. Assessment should reflect what a competent person needs to be able to do, rather than what can be achieved at the end of a specific course. When all these strategies and solutions are adhered to, the VTE in Nigeria will definitely take a new outlook in line with the trend in the global world.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

**3.1 INTRODUCTION**

In this chapter, we described the research procedure for this study. A research methodology is a research process adopted or employed to systematically and scientifically present the results of a study to the research audience viz. a vis, the study beneficiaries.

**3.2 RESEARCH DESIGN**

Research designs are perceived to be an overall strategy adopted by the researcher whereby different components of the study are integrated in a logical manner to effectively address a research problem. In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton & Straits, (2009), Survey research can use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (i.e., mixed methods). As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

**3.3 POPULATION OF THE STUDY**

According to Udoyen (2019), a study population is a group of elements or individuals as the case may be, who share similar characteristics. These similar features can include location, gender, age, sex or specific interest. The emphasis on study population is that it constitute of individuals or elements that are homogeneous in description.

This study was carried out to examine the constraints of teaching technical education in secondary schools in Enugu East Local Government Area. Teachers from 4 selected secondary schools in Enugu East Local Government Area form the population of the study.

**3.4 SAMPLE SIZE DETERMINATION**

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude (Udoyen, 2019). In this study, the researcher adopted the convenient sampling method to determine the sample size.

**3.5 SAMPLE SIZE SELECTION TECHNIQUE AND PROCEDURE**

According to Nwana (2005), sampling techniques are procedures adopted to systematically select the chosen sample in a specified away under controls. This research work adopted the convenience sampling technique in selecting the respondents from the total population.

In this study, the researcher adopted the convenient sampling method to determine the sample size. Out of all the entire population of teachers of the selected schools in Enugu East Local Government Area, the researcher conveniently selected 80 out of the overall population as the sample size for this study. According to Torty (2021), a sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

**3.6 RESEARCH INSTRUMENT AND ADMINISTRATION**

The research instrument used in this study is the questionnaire. A survey containing series of questions were administered to the enrolled participants. The questionnaire was divided into two sections, the first section enquired about the responses demographic or personal data while the second sections were in line with the study objectives, aimed at providing answers to the research questions. Participants were required to respond by placing a tick at the appropriate column. The questionnaire was personally administered by the researcher.

**3.7 METHOD OF DATA COLLECTION**

Two methods of data collection which are primary source and secondary source were used to collect data. The primary sources was the use of questionnaires, while the secondary sources include textbooks, internet, journals, published and unpublished articles and government publications.

**3.8 METHOD OF DATA ANALYSIS**

The responses were analysed using the frequency tables, which provided answers to the research questions.

**3.9 VALIDITY OF THE STUDY**

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The researcher constructed the questionnaire for the study and submitted to the project supervisor who used his intellectual knowledge to critically, analytically and logically examine the instruments relevance of the contents and statements and then made the instrument valid for the study.

**3.10 RELIABILITY OF THE STUDY**

The reliability of the research instrument was determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to (Taber, 2017) the range of a reasonable reliability is between 0.67 and 0.87.

**3.11 ETHICAL CONSIDERATION**

he study was approved by the Project Committee of the Department. Informed consent was obtained from all study participants before they were enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was put in place in advance.

**CHAPTER FOUR**

**DATA PRESENTATION AND ANALYSIS**

**INTRODUCTION**

This chapter presents the analysis of data derived through the questionnaire and key informant interview administered on the respondents in the study area. The analysis and interpretation were derived from the findings of the study. The data analysis depicts the simple frequency and percentage of the respondents as well as interpretation of the information gathered. A total of eighty (80) questionnaires were administered to respondents of which only seventy-seven (77) were returned and validated. This was due to irregular, incomplete and inappropriate responses to some questionnaire. For this study a total of 77 was validated for the analysis.

**4.1 DATA PRESENTATION**

**Table 4.2: Demographic profile of the respondents**

|  |  |  |
| --- | --- | --- |
| **Demographic information** | **Frequency** | **percent** |
| **Gender**  Male |  |  |
| 42 | 54.5% |
| Female | 35 | 45.5% |
| **Age** |  |  |
| 20-25 | 15 | 19.5% |
| 25-30 | 19 | 24.7% |
| 31-35 | 23 | 29.9% |
| 36+ | 20 | 25.9% |
| **Marital Status** |  |  |
| Single | 10 | 12.9% |
| Married | 64 | 83.1% |
| Separated | 0 | 0% |
| Widowed | 3 | 3.9% |
| **Education Level** |  |  |
| WAEC | 00 | 0% |
| BS.c | 35 | 45.5% |
| MS.c | 42 | 55.5% |
| MBA | 00 | 0% |

**Source: Field Survey, 2021**

**4.2 DESCRIPTIVE ANALYSIS**

**Is non-availability of finance affecting the development of technical education ?**

**Table 4.2:** Respondent on technical education

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 50 | 70.9 |
| No | 20 | 21.3 |
| Undecided | 7 | 7.8 |
| **Total** | **77** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 70.9% said yes, 21.3% said no, while the remaining 7.8% were undecided.

**Is technical education really helping individual to be self-reliance?**

**Table 4.2:** Respondent on technical education

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 50 | 70.9 |
| No | 17 | 21.3 |
| Undecided | 10 | 7.8 |
| **Total** | **77** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 70.9% said yes, 21.3% said no, while the remaining 7.8% were undecided.

**Are inadequate infrastructural facilities affecting the development of vocational education?**

**Table 4.2:** Respondent on technical education

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 60 | 70.9 |
| No | 10 | 21.3 |
| Undecided | 7 | 7.8 |
| **Total** | **77** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 70.9% said yes, 21.3% said no, while the remaining 7.8% were undecided.

**Are there problems faced by teachers in teaching technical education to secondary school students?**

**Table 4.2:** Respondent on technical education

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 50 | 70.9 |
| No | 15 | 21.3 |
| Undecided | 12 | 7.8 |
| **Total** | **77** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 70.9% said yes, 21.3% said no, while the remaining 7.8% were undecided.

**CHAPTER FIVE**

**SUMMARY, CONCLUSION AND RECOMMENDATION**

**5.1 SUMMARY**

In this study, our focus was to examine the constraints of teaching technical education in secondary schools using selected schools in Enugu East Local Government Area as a case study**.** The study specifically was aimed at highlighting if non-availability of finance is affecting students enrolment in technical education. if technical education is really helping individual to be self-reliance. if inadequate infrastructural facilities is affecting the development of technical education. the problems faced by teachers in teaching technical education to secondary school students.

The study adopted the survey research design and randomly enrolled participants in the study. A total of 77responses were validated from the enrolled participants where all respondent are drawn from staff of the selected schools.

**5.2 CONCLUSION**

Based on the finding of this study, the following conclusions were made:

1. non-availability of finance affecting the development of technical education
2. technical education really is helping individual to be self-reliance
3. inadequate infrastructural facilities are affecting the development of vocational education
4. there are problems faced by teachers in teaching technical education to secondary school students

**5.3 RECOMMENDATION**

Based on the responses obtained, the researcher proffers the following recommendations:

1. That infrastructural facilities should be improved upon in other to make technical education more appealing to both teachers and students
2. That technical education teachers should undergo periodic training , in other to meet up with the new standard of teaching the subject
3. That government should employ qualified teachers , who can confidently teach technical education.

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**APPENDIXE**

**QUESTIONNAIRE**

**SECTION A**

Geder

Male()

Female ()

Age

20-25 ()

25-30 ()

31-35 ()

36+ ()

Marital Status

Single ()

Married()

Separated()

Widowed()

Education Level

WAEC ()

BS.c ()

MS.c ()

MBA ()

**Section B**

**Is non-availability of finance affecting the development of technical education ?**

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Is technical education really helping individual to be self-reliance?**

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Are inadequate infrastructural facilities affecting the development of vocational education?**

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Are there problems faced by teachers in teaching technical education to secondary school students?**

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |