

**MASTER OF SCIENCE IN TECHNICAL EDUCATION
(ELECTRICAL & ELECTRONIC ENGINEERING)**



**The Role of TVET in Development of Technical Manpower in Yobe State of
Nigeria: The Case of Electrical Technicians**

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ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)

DHAKA-BANGLADESH

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**A Thesis Submitted in Partial Fulfillment of the Requirement for the degree
of Master of Science in Technical Education with Specialization in Electrical
and Electronic Engineering**

DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)

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The thesis titled “**The Role of TVET in Development of Technical Manpower in Yobe State of Nigeria**” prepared by **Mohammed Ali Zanna**, Student No. **161031205** of Academic Year **2017-2018** has been found satisfactory and accepted as partial fulfillment of the requirement for the degree of Master of science in Technical Education (MSc. TE) on November, 2018.

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This is to certify that the work presented in this thesis is the outcome of the investigation carried out by **Mohammed Ali Zanna** under the supervision of **Professor Dr. Che Kum Clement** in the Department of Technical and Vocational Education (TVE), Islamic University of Technology (IUT), Board bazar, Gazipur, Bangladesh. It is hereby declared that this thesis/report or part of it has not been submitted elsewhere for the award of any Degree or Diploma. All literature and contributions cited are fully acknowledged.

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DEDICATION

This Research work is dedicated to my dear mother Zainab Ibrahim Bah and my late father Zanna Daudu Kanuri.

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LIST OF ACRONYMS

- CBT** - Competency Based Training.
- ILO** - International Labour Organization.
- NPE** - National Policy on Education.
- TVET** - Technical and Vocational Education and Training.
- UNESCO** - United Nation Educational Scientific and Cultural Organization.
- WA** - Weighted Average.

ABSTRACT

The general objective of this study was to determine the role of TVET in development of technical Manpower in Yobe state of Nigeria. TVET is an extremely important and necessary programme that can create demand-driven manpower for sustainable industrial and technological progress and national development. The study was guided with two research questions. The survey research design was employed. The sample was made up of two (2) principals of technical colleges, forty (40) TVET teachers and forty (40) students from two technical colleges of Yobe state Nigeria. The principals were selected using purposive sampling, while the TVET teachers and students were selected using simple random sampling technique respectively. Questionnaire validated by four (4) experts was used for data collection. The collected responses were tabulated, analyzed using statistical tool SPSS version 20 which computed the frequency, percentage, weighted average. The result was interpreted and the findings revealed that TVET policy reform issues and also TVET-industry partnership are achievable mechanisms for developing industrial and technological manpower for national development via TVET programmes in Yobe state and Nigeria in general. The researcher recommended that tight policy document should be prepared by government and TVET stakeholders to properly harmonize TVET programmes in Nigeria especially Yobe state.

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Technical and Vocational Education and Training TVET, as entrenched in the Nigerian National Policy on Education NPE identifies one of the aims of TVET to be that of giving training and imparting necessary skills leading to the production of craftsmen and self-reliant technicians and technologists in Technical and Vocational areas. Specially, in construction trades, the construction industry faces different challenges in area of skilled artisans/craftsmen.

As discussed by (Okorafor & Nnajiifo, 2017) Major educational reforms in Africa and Nigeria in particular have been to restructure colonial education system with emphasis on vocationalization. Consequently upon the attainment of independence, it was discovered that the colonial education did not meet the aspiration of Nigerians. This led to the introduction of 6-3-3-4 education policy in 1977. The policy sought to introduce a functional technology-based education, which could sustain the nation's economic activities for rapid socio-economic development.

TVET is one of the recognized and effective means by which quality, up-to-date, well-inform, literate and knowledgeable workers are prepared and trained for the development of the nation. Federal Republic of Nigeria[(FRN] [2004] Describes TVET as a comprehensive term referring to those aspects of educational process involving in addition to general education, the study of technologies and related sciences, the acquisition of practical skill, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. In nutshell, TVET is a means of preparing for occupational fields and for effective participation in the world of work and alleviation of poverty.

TVET facilitates the acquisition of the practical and applied skills as well as basic scientific knowledge. It is therefore a planned program of courses and learning experiences that begin with exploration of career options, basic academic and life skills, and enable achievement of high academic standards, leadership, preparation for industry-defined work and advanced and continuing education [CTE, 2009].

(Nuru, 2007) indicated that changes in a country's economy are required to prepare young people for job of the future and TVET has important role to play in this process. The aim of TVET is to prepare people for self-employment and in addition be a medium of training people for the world of work; by making individuals have a sense of belonging in their communities. Consequently, TVET is seen as an instrument for reducing extreme poverty (Hollander & Mar, 2009).

The problem of why there is a high level of TVET graduates who are unemployable arises from lack of skills or competency required of them in Nigeria, despite the fact that the summary of the objectives of TVET is to enable students secure employment either at the end of the whole course or after completing on or more modules of employability skills forms the basis for this research.

There is also a need to understand the eventual contribution of graduates of TVET schools to the country's economic growth and development.

Therefore, the research was designed to find out the level of competency **and** skills possessed by craftsmen, contribution of TVET institutions in preparing competent workforce and strategies for improving skill acquisition of craftsmen in the construction industry.

(Nuru, 2007) indicated that changes in a country's economy is required to prepared young people for the jobs of the future and technical and vocational education have important roles to play in this process. Technical and Vocational Education has been an integral part of national development. According to (Holmberg et al., 1992) the Dutch school system is said to pay attention to high standards in Mathematics and the provision of technical education at the ages 14-16 for a third of all pupils, and widespread vocational education at 16+. Unfortunately, Nigeria does not seem to give technical and vocational education the attention they deserve and appears to be one of the reasons for rising unemployment and poverty in the society. May (2006) also posits that the neglect of technical education in the area of adequate personnel, financial support and facilities to encourage technical and vocational education are robbing the nation of the contribution their graduates would make in the economy. Furthermore, (Okafor, 2008) maintained that there is an urgent need for the people's attention to be redirected towards self-reliant and sustainable means livelihood which technical education provides. This research

therefore brings some salient contributions, which this neglected education sector can make in Yobe State of Nigeria economic development by producing labour market ready graduates.

1.2 Statement of the problem.

We do not understand how students, teachers and other professionals in the Yobe state Nigeria perceive the impacts of government policies on education and the eventual contribution of graduates of TVET Schools in Nigeria to the country's economic growth and development. However, the major objectives of the study are to examine the present state of affairs in respect to the role of technical and vocational education and training in the manpower development in Yobe state Ministry of education. Hence, the study is basically trying;

1. To see if the effort of Yobe state Ministry of education has been able to meet the demands of technical manpower needs of the state especially as regards to the 6-3-3-4 system of education.
2. To see how these efforts could be improved upon to describe the role played by planners, administrators, principals, teachers in recruiting and training of technical manpower in Yobe state.

1.3 Objectives of the study.

The objectives of this study were to find out:

1. The aims and objectives of technical and vocational education
2. The status of technical and vocational education in the educational system of Nigeria especially in Yobe State.
3. The trends in the development of technical and vocational education.

1.4 Research questions

In order to achieve the objectives of this study, the following research questions were used to serve as a guide for the study:

1. Has the effort of Yobe State Ministry of education been able to meet the demands of technical manpower needs of the state especially as regards to the 6-3-3-4 system of education?

2 .How can we improve the efforts of planners, administrators, principals, teachers in recruiting and training of technical Manpower in Yobe state?

1.5 Significance of the study

The study will enable the state government appraise itself on the success or failure of money , time and effort which already invested in technical and vocational education to provide the manpower needs of the state and also to determine if there is any structural weakness in planning and **administration** of education in Yobe state. And to measure what may be considered suitable for improvement on the present condition of technical and vocational education and manpower development in the state.

1.6 Delimitation of the study

This research work was aimed at spelling out the role of TVET in development of technical manpower in Yobe state of Nigeria. The research work could have **been** extended to all technical colleges within the state, but due to lack of financial support, time and other factors, the study was limited to two (2) approved government science and technical colleges in the state.

1.7 Definition of terms

Technical education: is the aspect of education which leads to the acquisition of a practical and applied skills as well as basic scientific knowledge.

Vocational education: is that type of education that leads to the acquisition of practical skill which usually forms one's life profession.

Technical Colleges: Technical colleges are post-primary institutions with the following main objectives:

1. Providing the knowledge and skills necessary for employment in a particular trade or occupation.
2. Preparing suitable candidates for entry into tertiary institutions offering technological courses.

Teaching: The act, process or art of imparting knowledge and skills from teacher to learner.

Public sector: Bodies of establishments and business organizations under government control and directives.

J. S. S.: This is the first of secondary school period as it's contained in the Nigeria new National policy on education 6-3-3-4 system.

Private sector: Bodies of business organizations outside government control, authority and directives.

On the job-training: A formal way of training whereby the trainee is attached to skilled practitioners to be given verbal and mostly practical instructions and experiences.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This chapter has to do with the **review of** literature relevant to the study under the following sub-headings:

- Conceptual framework
- Technical and Vocational Education for National development
- Role of TVET in manpower development
- Competency and competency needs for TVET teachers
- Trends in the development of Technical and Vocational Education
- Pedagogy approach for teaching Electrical Works
- Summary of review of related literature

2.1 Conceptual framework

The endemic and chronic problems facing Nigeria's education in general and technical and vocational education in particular **has** been roundly highlighted (Victor E Dike, 2009). Such studies dictate the need to address the issues surrounding the limited of Nigerian government's support for science-based technology education as well as technical and vocational education. Support for such programs is necessary to ensure sustainable (or long-term) economic growth and development in the society. Studies on human-capital development emerged in the 1940s through 1960s (Victor Ebipuruonwu Dike, 2013). The recent rampant corruption in leadership and governance in Nigeria and a lack of technological capabilities which drive the growth and development of Nigerian economy have encourage researchers to examine these issues as they relate to the shortage of highly skilled technical manpower in Nigeria. In particular, the concept of human-capital development (Victor Ebipuruonwu Dike, 2013) provides direction for the general growth and development of any economy. However, the growth and development of any economy is impossible without good leadership and governance as well as technological capabilities (Victor E Dike, 2012). The development of human capital, technology capabilities

and a strong economy are impossible without good leadership and governance (Victor Ebipuruonwu Dike, 2013).

The importance human capital development cannot be over-emphasized according to OECD (2001:18) human capital is defined as: “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic wellbeing” HCD is the process of capacity building and strategic mobilization of human capital which unlocks the door of modernization, increases productivity and greater global trade as well as integrates them with the world economies (Dialoke). According to (Erhuraa, 2007) human capital development presupposes investments, activities and processes that produce knowledge, skills, health or values that are embodied in people. It implies building an appropriate balance and critical mass of human resource base and providing an enabling environment for all individuals to be fully engaged and contribute to goals of an organization or a nation. Any effort to increase human knowledge, enhance skills, productivity and stimulate resourcefulness of individuals is referred to as

HCD. HCD

as a process of increasing human knowledge, enhance skills increase productivity and stimulate resourcefulness of trainees should be systematic, sustainable and strategic. The process should be systematic to the extent that there should be a plan for which previous activities will provide support for upcoming activities while facilitating the attainment of set goals. The process should be sustainable since the product (human capital) must make desired and enduring impact on the organization or society. The process should be strategic to the extent that there are well-defined goals and targets whose attainments are time bound. It should be dynamic, responsive and result oriented; continually evolving and proactive to address emerging challenges (Teerah, Amaehule, & Enyekit, 2011) The most important outcome of an effective HCD system is that it opens up decent employment opportunities by enhancing workers’ abilities to secure and retain jobs, progress at work and cope with the change. Investment in priority areas of education and skills development become very important for reducing the gap between knowledge based workforce and a low-skilled workforce. HCD has also emerged as the primary and most effective means for reducing chronic absolute poverty, reducing gender oriented and inter-generational income inequalities (Kazmi, 2007).

There are even enough to revolutionize Nigeria. But the moral courage to manage them to produce what we desire absent, such as conscious supervision towards the set goals, provision of adequate money organizing and holding of development. He therefore recommended to that attention should be given to those aspects.

There are some current literatures which talk about TVET in general and its role in development of technical manpower in order to enhance economy and alleviate poverty in the society. (Jabbari, 2015) Describes TVET as a strong shield that has its own features in terms of aim, structure, nature, and method of implementation so, they are separable from general and academic educations. The goal of such education is enhancement of knowledge, skill and perception as well as more qualified execution of the tasks within job realm (Jabbari, 2015). However, in terms of enhancing economy of Nigeria the economists discussed that Nigeria should emulate the good work done in education by other countries such as Germany, South Korea, and Singapore “by upgrading vocational and technical education by forging closer relations between companies and schools” (Drucker, 2013). For instance, Germany has a long history with a well-established system of vocational schooling and apprenticeships, South Korea has its “meister” schools (vocational schools), and Singapore has followed the good example by boosting its technical colleges (Drucker, 2013)Upgrading science and technology education and boosting vocational and technical education and training, as well as apprenticeship, has become the weapon that helped the above mentioned countries to bridge the gap between the world of education and the world of work. The technological development of a nation is inseparable and indispensable with TVET (Urama & Ndidi, 2012), (Serumu, 2014) affirmed that TVET skills are vital to economic development because they are needed for enterprise (industry) productivity and profitability as well as individual’s prosperity.

2.2 Technical and Vocational Education for National Development

All nations in the world are faced with the challenge of improving the capacity of the workforce to respond to their own national development needs and to the demands of a rapidly changing, more global and competitive world. The future success of nations, including individuals, enterprises and communities increasingly depends on existence and possession of transferable and renewable skills and knowledge (Urama & Ndidi, 2012)TVET enhances economic and social development of a nation, according to (Urama & Ndidi, 2012) TVET was

regarded as a core component of national development strategy in the international community prior to the 1980's but was gradually neglected due to high cost of funding and support. According to (Ernest, Matthew, & Samuel, 2015) TVET is meant to equip people with the technical and professional skills needed for industrial development as well as social progress of any country. And also a finding from (Udofia, Ekpo, Nsa, & Akpan, 2012) says that development in TVET suggest straining purposely planned for employees or people for efficiency and effectiveness and maximization of profit or full benefit for the enterprise(industry, commerce or agriculture). (Okoye & Okwelle, 2014) stated that TVET plays important role in manpower development and job creation in Nigeria.

The major aim of TVET is to become an instrument of self-employment to the individual who has been empowered not only by subject matter inhibition but who through experimental learning perceived it as real life solution to problems and can make use of his initiatives in labour market (Klein-collin, 2012).

However, Technical and Vocational Education and Training (TVET) was introduced in Nigeria with the aim of providing the technical knowledge and skills necessary for agriculture, industrial, commercial and economic development of the Nation. Really, this form of education has not live up to its expectation in terms of achieving its goal. This development could be as a result of not implementing a workable mode of delivering for TVET programmes. Numerous countries of the world among which are Australia, Indonesia, New Zealand, United Kingdom and Ghana have made some reforms in the mode of delivery of TVET by introducing the Competency Based Training (CBT) concept and it has proven to be productive in all its ramifications.

2.3 Role of TVET in manpower development

Technical and vocational education and training (TVET) refers to education and training that prepares persons for gainful employment (Finch & Crunkilton, 1999). In other words, TVET refers to deliberate interventions to bring about learning which would make people more productive (or simply adequately productive) in designated areas of economic activity (e.g., economic sectors, occupations, specific work tasks). TVET has the potential to enhance human capabilities and enlarge peoples' choices. The benefits of TVET need to be more equitably distributed between men and women, and between rural and urban areas.

Technical vocational education is defined according to Serumu,(2014) as that aspect of education that exposes the learner to the acquisition of demonstrable skills that could be transformed into economic benefits and sustainable livelihood. Mar (2011:4) in introducing UNESCO's technical vocational education and training definition and strategy, stated that TVE is defined as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences; as well as the acquisition of practical skills, attitudes, understanding, knowledge relating to occupations in various sectors of economic and social life.

TVE is to be understood as:

- an integral part of general education;
- a means of preparing for occupational fields and for effective participation in the world of work;
- an aspect of lifelong learning and a preparation for responsible citizenship;
- an instrument for promoting environmentally sound sustainable. Development (Greening TVE International Framework);
- a method of facilitating poverty alleviation

The beginning of TVET is difficult to trace as it connotes skills competencies which has been embedded in surplus of other histories. The perception of the origin of TVET by many is the diverse ways. However, general education and training began in pre-history with the transmission of knowledge and culture from one generation to the next. The use of tools, beginning with those made from stones, evolved a human evolved. In the pre-historic hunting and gathering society, skills were passed from parent to child as members of the small, usually related, migratory groups. The transition from this stage to the settled cultivation of crops marks the beginning of civilization and with it recorded history. The education and training that occurred is best embodied in the **Chinese proverb: 'Give a man a fish and he will eat for a day, teach him how to fish and he will eat for a lifetime.'**

The World Bank, International Labour Organization (ILO), United Nation Educational, Scientific and Cultural Organization (Unesco), and other organizations have recently shown drive towards actively recognizing a new the role of TVET. However, UNESCO who is at the

forefront of TVET promotion had the following objectives established at the Seoul congress (Unesco, 1999):

- To provide TVET for all;
- To orient TVET for sustainable development;
- To strengthen TVET as an integral component of lifelong learning.

TVET can take place either in formal schools (i.e. kindergarten through to grade 12 or 13), or increasingly in post-secondary community and/or technical colleges, or informally by means of training at the workplace and increasingly by distance media. TVET prepares learners for specific jobs or types of work, often including practical and/or procedural activities. The aim of TVET is to enable learners to meet needs of employers for qualified labour and/or own needs related to production of goods and services. “Skills training” in general denotes development of qualifications in the same line, but with a more limited scope and volume of training, often focusing on performance of one task (e. g. operation of a specific machine) or a limited set of tasks (e. g. different types of wiring).

At a UNESCO Expert Meeting held in Bonn, Germany, 25 to 28 October 2004, approaches and practices were presented to illustrate the contribution that TVET had made towards a more sustainable future. “Learning for work, citizenship and a sustainable future” is joint responsibility of education of the world of work and of a variety of stakeholders in the formal and informal socio-economic environment.

As been competed that since education is considered the key to effective and efficient development strategies, technical and vocational education and training (TVET) must be the master key that can eradicate poverty, promote peace, conserve the environment, improve the condition of life for all and help achieve sustainable development. With this, TVET has to re-orient its agenda for action so as to continually provide scientific and technical skills in relevant and responsive programs, and consequentially develop a new generation of human resources.

In general context, Sustainable Development combines three principal aspects Ayuba (2010):

- **Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis, and to avoid sectoral imbalances between such areas as agricultural and industrial production.
- **Environmental:** An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource system systems, and depleting non-renewable resources only to the extent to which adequate substitutes can be developed. The concept includes maintainance of ecosystem functions such as biodiversity and atmospheric stability, thus addressing resources that are traditionally not considered as economic resources.
- **Social:** A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, as well as political accountability and participation to promote active citizenship.

2.4 Competency and competency needs for TVET teachers

When we talk about knowledge, skills and attitude, we are simply referring to quality. The word quality **may be** regarded as “competence”. The word “competence” comes from the Latin word “competere” which means “competent” that is a person’s ability to possess adequate skill, knowledge, attitude or behavior to perform certain activity (Hamisu, Salleh, Sern, Adamu, & Gambo, 2017) As discussed by **some writers**, the word competency was initially discussed and assessed by David McClelland in the early 1970s as a real feature of individuals **which** they possess such as skills, knowledge and ability of worker performance which can be predicted, measured and assessed (**Nwankwo & Okoye, 2015**) Although, the first research of competency that come out with human resource development was done by McLagan in 1989 who believed competency is an area of knowledge, attitude and skills of individuals to produce vital key output.

Competency Based Training (CBT) is a structured approach to training and assessment that is directed toward achieving specific outcomes. It is about assisting individuals to acquire skills and knowledge with a view to performing a task to a specified standard under certain conditions (Hodge & Harris, 2012). The emphasis is competency based training is on “performing” rather than just “knowing”. Competency according to (Dubois & Rothwell, 2004b), is defined in terms of what a person is required to do (performance), under what conditions it is to be done

(conditions) and how well it is to be done (standards). Competency based training promotes education and training in TVET institutions for the world of work (Klein-Collins, 2013).

PRINCIPLES OF COMPETENCY BASED TRAINING

According to (Jones & Voorhees, 2002), principles of CBT includes:-

Student Centered: The student as the active player generates the learning goals and is responsible for his or her own learning activities in terms of time and rate. The lecturer as a coach guides the students to mingle with the tool and develop these competencies.

Task Based: - Learning activities are directed toward performing the professional task. This ensures active learning instead of passive learning.

Competence Oriented: Learning task are formulated to develop competencies that are needed to perform the professional task of the student's future working environment.

CHARACTERISTICS OF COMPETENCY BASED TRAINING

According to (Travers & McQuigge, 2013) key characteristics of CBT are:-

1. Competency based training focuses on the learner as an individual. It provides opportunities for each individual to develop skills at their own pace, collaborate with others, collect evidence of learning and become successful lifelong learners CBT empowers learners to:-

- Understand the competencies they need to master to achieve their goals.
- Progress through learning process without time constraint.
- Explore diverse learning opportunities.
- Collaborate in learning activities with countries of peers and mentors.
- Create learning artifacts that represents their competencies.
- Reflect on their self-learning or training achievement.
- See what they have mastered, what they still need to accomplish and where to improve etc.

1. Outcomes-based. It bases each part of an educational system around goals (outcomes).

By the end of the educational experience each student should have achieved the goal.

2. COMPARISON OF TRADITIONAL TVET TO CBT TVET

The table below highlights the major difference between the two types of TVET.

Traditional TVET	CBT TVET
* Graduates supply driven	* Customer demand driven
* Exam driven	* Learners are assessed on an ongoing basis.
* Rote learning (memorization Technique)	
* Syllabus is content - based and broken down into subjects.	* Critical thinking, reasoning Reflection and action.
* Textbook/worksheet bound and educator – centered.	* An integration of knowledge, skills and attitudes/value learning is relevant and connected to real-life situation/read work situation.
* Educator/trainer uses “ deductive” approach in teaching	* learning materials/training packages, learner centered, educator/trainer is a facilitator.
* Content organized according to rigid timeframes.	Facilitator uses inductive approach in facilitating.
* Curriculum development process is not open to public comment.	*Flexible time-frames allow learners to work at their own pace. Comment and input from the wider community and stakeholders is encouraged.

2.5 Trends in the development of Technical and Vocational Education

According to some Nigerian researchers, TVET has been misunderstood in the Nigerian context to mean that type of instruction and training given to people that could never study sciences or arts in the school system and are therefore regarded as drops out from the system or those that are not intelligent enough to pass good examinations for entry into higher institutions such as universities (Oluwale, Jegede, & Olamide, 2013). (Uddin, 2013) defined TVET as education given to an individual in order to enable him or her to develop the creative and scheming potentials inherent in him or her for the use of mankind. According to (Olaitan, 1996) it is established that formal western education in Nigeria started with vocational education when the first Europeans that came to Nigeria employed our ancestors as gardeners, laundry men, carpenters, cooks, stewards, tailors and even house builders etc. Although these new trades or occupation were not called vocational, they form a major part of what we know today as vocational education (Famiwole, 2012)Then these forms of skill training were given to the

handicapped, physically or mentally retarded people. The missionaries provided them with training in handicraft, shoe-repair, broom-making etc. This was a critical land mark in the development of vocational education because those that were handicapped were trained in skills and gainful occupations. Ever since, such training were associated with the handicapped; and hence vocational education was therefore professed to be the education for the handicapped or mentally retarded individuals (Famiwole, 2012) As a result of this misconception, the meaning and definition of what vocational education is all about have not been clearly understood by majority of people. The assertion here, therefore, is that the confusion and problems encountered in vocational education in Nigeria today be it organizational, administrative, educational or otherwise; seem to emanate from the lack of understanding of the concept of vocational education and its purposes (Famiwole, 2012) The **flaws that** exist must be understood in depth as impact on the existing system. In order to understand the profound impact on the emergence of new trends in this system, there is a need for a deeper global trends in terms of changes in technology, economic and social (Majumdar, 2009).This global trend has clearly given the implications of the system of TVE Asia pacific in general and Malaysia in particular. Changes experienced at once has changed and affected the TVE system as the implementation of Competency Based Assessment, Employability, Work-based learning, and apprenticeships and so on.

2.6 Pedagogical approach for teaching Electrical Work

According to (Barau, 2015) teaching is planned for the purpose of supporting learning; therefore, it must take into account some principles of human learning specifically under the condition it occurs. **But (Hamisu et al., 2017)** Opined that, teacher cannot impart knowledge rather, he facilitates learning through the provision of conducive environment that would allow the learner attain perception.

The traditional method of instruction to students is prevalent in Higher Education Institutions (HEIs) in Nigeria. This traditional method is textbook-based, lessons are often complemented with practical lessons in which students can build electrical circuits and carry out measurements. These practical lessons can assist students in developing skills and experience when working with real equipment. However, practical lessons also has limitation that in general keep students from developing a proper conceptual understanding, for example, in practical lessons students

tend to focus on making their circuits work rather than on trying to understand the causal relations between variables and outcomes (Kollöffel & de Jong, 2013)The old learning and teaching strategies are no longer suitable for the students. What students should learn are not only the knowledge but more useful skills, critical-thinking skills, self-directed learning, cooperation and communication skills (Ri-qiang, 2004). Any attempt to improve teaching and learning may have to address two fundamental issues: Firstly, the full set of knowledge, skills and attitudes that these students should possess as they leave at the institutions and the level of proficiency required as contained in the curriculum. The second issue is how to do better on guaranteeing that these students learn the skills. Quality teaching is the essential ingredient that can guarantee student learning skills and conceptual understanding as supported by (Obara & Abulokwe, 2012) who emphasized that the quality of teachers is the single most important factor affecting students achievement, and that countries which score highly on international test have multiple policies in place to ensure that the teachers they employ are as effective as possible in the use of e-learning materials and must be highly qualified.

2.7 Summary of review of related literature

The aim of this chapter was to review those related studies carried out by other researchers in the past as **a means to add value to the present research work**, “the role of TVET in development of technical manpower in Yobe state of Nigeria: The case of electrical technicians”. The conceptual frame work of the study was based on the endemic and chronic problems facing Nigeria’s education in general and technical and vocational education in particular and have been roundly highlighted (Victor E Dike, 2009) Such studies dictate the need of address the issues surrounding the limited of Nigerian government’s support for science-based technology education as well as technical and vocational education.

The major aim of TVET is to become an instrument of self-employment to the individual who has been empowered not only by subject matter inhibition but who through experimental learning perceived it as real life solution to problems and can make use of his initiatives in labour market (Okoye & Michael, 2015).

Technical and vocational education and training (TVET) refers to education and training that prepares persons for gainful employment (Finch & Crunkilton, 1999).

CHAPTER III

METHODOLOGY

3.0 Introduction

Quantitative research method was used in conducting the study. Quantitative research is portrayed by the use of statistical analysis with the objectives of describing, comparing and attributing the cause. Each of these objectives is done through the assigning of numerical values to the variables and the mathematical analysis of those values (Zulueta & Costales Jr, 2003).

3.1 Research design

Survey design was used for this study which is considered appropriate for this research work, because it focuses to find out responses from respondents by the use of questionnaire. The survey design was also chosen because it is effective in seeking the views of the people about a particular issue that concern them (GARBA & BUKAR)

3.2 Area of study

The study was carried out in Government approved technical colleges of Yobe state Nigeria namely: Government Science and Technical College Potiskum and Government Girl's Science and Technical College Potiskum.

3.3 Population of the study

The population of the study **consisted of** all principals, teachers teaching TVET and final year students in technical colleges in Yobe state, Nigeria.

3.4 Sample and sampling technique

Looking at the nature of the schools, teachers and student population, the researcher decided to use eighty two (82) sample size respondents in the study, which consist of two principals, forty TVET teachers and forty students from the two technical colleges of the state. Hence, a purposive sampling was used for the selection of the colleges and the principals, while random

sampling was used for the TVET teachers and the students. Table 3.1 below shows the description.

Table 3.1: Sampling area and number of samples

Description	Name of college	No. of sample
Principal	GSTC Potiskum	1
Principal	GGSTC Potiskum	1
TVET teachers	GSTC Potiskum	20
TVET teachers	GGSTC Potiskum	20
Students	GSTC Potiskum	20
Students	GGSTC Potiskum	20
Total		82

3.5 Data collection procedures

Data was collected by using questionnaire. The questionnaires were sent through Email to a professional brother in Nigeria who has prior research experience and administered directly to the respondents in the selected schools from which the required data was collected. The feedback was sent to the researcher through e-mail which is one of the social media of sending and receiving information. The questionnaire was structured in five (5) point scale as shown in table below.

Table 3.2: Five (5) point-scale

Scale	points
Strongly Agree (SA)	5
Agree (A)	4
Undecided (U)	3
Disagree (D)	2
Strongly Disagree (SD)	1

3.6 Detailed description of questionnaires

A **total number** of eighty two (82) respondents were sampled and questionnaires were sent and distributed to them. A total of eighty two (82) i.e. hundred percent (100%) of the questionnaires were returned without single missing i.e. unanswered and the percentage of principals, teachers, students and gender stated were indicated in tables 3.3 and 3.4 below

Table 3.3: Questionnaire Return Rate and Status

	Respondents NO Issued	No returned	Percent	Valid	Cumulative
				percent	percent
PRINCIPAL	01	01	1.25%	1.25%	1.25
PRINCIPAL	01	01	1.25%	1.25%	2.5
TEACHER	20	20	24.5%	24.5%	27.0
TEACHER	20	20	24.5%	24.5%	51.5
STUDENTS	20	20	24.5%	24.5%	76.0
STUDENT	20	20	24.5%	24.5%	100.0
Total	82	82	100.0%	100.0%	

Table 3.4: Respondents Gender Percentages

Gender	Frequency	Percent	Valid percent	Cumulative
Percent				
MALE	57	69.5%	69.5%	69.5
Valid FEMALE	25	30.5%	30.5%	100.0
Total	82	100.0%	100.0%	

Table 3.3 and 3.4 above show that the response rate was 100% of the targeted respondents and the researcher perceived that the views expressed in the report represented the target population.

3.7 Data analysis techniques

The data collected from the respondents through questionnaire were analyzed and tabulated in the form of the frequencies and percentages. Also, each table tabulated are followed by its detail interpretation.

Quantitative method of data analysis was used, **and** weighted average was used to find out the significance of the differences of data obtained together and questionnaires were also analyzed by weighted average (WA) mean while SPSS version 20 software was used for **analyzing** the data obtained. The summary of the interpretation is illustrated in the table 3.5 below:

Table 3.5: Weighted Average and its Interpretation

Weighted Average	Weighted Average Interpretation
$5 \geq WA > 4.5$	Strongly Agree SA (5)
$4.5 \geq WA > 3.5$	Agree A (4)
$3.5 \geq WA > 2.5$	Undecided U (3)
$2.5 \geq WA > 1.5$	Disagree D (2)
$1.5 \geq WA > 0$	Strongly Disagree SD (1)

3.8 Validation of the instrument

The drafted questionnaire of this study was validated by two (2) experts in the department of Technical and Vocational Education (TVE), Islamic University of Technology (IUT). Their comments were used in modifying the test items or questionnaire.

3.9 Reliability of the instrument

The pilot test was conducted by administering the questionnaire to four (4) Master's students in the department of TVE with specialization in electrical/electronic engineering in order to establish the reliability (the measure of stability) of the instrument items. SPSS version 20 software was used for analyzing the data obtained which yielded reliability coefficient of 0.08 and 0.082 which is in line with UNESCO (2002) **which** said that the reliability coefficient of 0.07 or more is acceptable. According to Uzoagulu (1998) reliability of a test instrument is the consistency of the test in measuring whatever it purports to measure.

3.10 Ethical consideration

The selection process of the participants and their participation in this study required the approval of the two (2) selected technical colleges from Yobe state, Nigeria. Each participant was given a questionnaire and required time to fill the questionnaire voluntarily.

All the participants' information were kept confidential and remained anonymous. Moreover, the study ensured that all the data collected used aliases. Participants didn't have any influence and link with the aliases.

CHAPTER IV
ANALYSIS AND INTERPRETATION OF DATA

4.0 Introduction

The data collected from the respondents through questionnaire was tabulated in forms of frequencies and percentages, also separate tables were organized for different aspect of the questionnaires. Each table was interpreted based on the feedback acquired from the respondents. Weighted average (WA) were calculated and analyzed from the data collected in the questionnaires in form of five point likert scale using SPSS version 20 software.

4.1 Demographic data

Since data was collected from 82 respondents drawn by stratified sampling from two technical colleges in Yobe state, the sampled principals, TVET teachers and the students were presented in terms of demographics of the respondents, highlighting the three different groups for principals, TVET teachers and students. The respondents have therefore, been categorized according to gender, as the sample consists of both male and female.

Table 4.1: Demographic Data of the Respondents

Gender	Principals		Teachers		Students	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	1	50%	37	92.5%	20	50%
Female	1	50%	3	7.5%	20	50%
Total	2	100%	40	100%	40	100%

The Table above shows that out of two principals who responded to the questionnaire 1 (50%) was male and also the other 1 (50%) was female. And the TVET teachers who responded to the questionnaire out of 40, 37 (92.5%) were males and only 3 (7.5%) of them were females. This showed that there are more male TVET teachers than their counter part female in the study. And out of the 40 students 20 (50%) were males likewise 20 (50%) were females because the data was collected from male and female technical colleges.

Table 4.2: The Aims and Objectives of Technical and Vocational Education

S/NO	Statement	5(SA)	4(A)	3(U)	2(D)	1(SD)	WA	S-value
1.	Industrial policy is linked to TVET Programmers for effective TVET Manpower development for the Industries.	5 6.1%	25 30.5%	15 18.3%	29 35.4%	8 9.8%	3.12	0.201
2.	Government should encourage & promote institution industry collaboration to establish a system guided and coordinated by industrial associations.	6 7.3%	8 9.8%	32 39%	36 43.9%	0 0%	4.2	0.000
3.	TVET should retool it teachers to accommodate change in skills, competences and operating procedure	3 3.7%	4 4.9%	5 6.1%	44 53.7%	26 31.7%	4.05	0.000
4.	Industries should be made aware of And have the curriculum of TVET programmes.	1 1.2%	6 7.3%	4 4.9%	38 46.3%	33 40.2%	4.17	0.000
5.	TVET curriculum consists of industrial training programme.	6 7.3%	4 4.9%	41 50%	31 37.8%	0 0%	4.18	0.000
6.	TVET institution should work in partnership with industry to ensure employment, employee training and continuous education.	2 2.4%	6 7.3%	37 45%	37 45%	0 0%	4.33	0.000
7.	The curriculum consists on training Skills enhancement programmes (workshop, field trip, real life training e. t. c.)	3 3.7%	3 3.7%	13 15.9%	39 47.6%	24 29.3%	3.95	0.000

Industrial policy is linked to TVET programmes for effective TVET Manpower development for the industries.

Regarding the statement, industrial policy is linked to TVET programmes for effective Manpower development for the industries, the table 4.4 reveals that 6.1% of the respondents strongly agreed, 30.5% agreed, 18.3% undecided, 35.4% disagreed and 9.8% strongly disagreed with the statement. The weighted average 3.12 is within the range of 3.5 to 2.5 which indicate that the respondents are uncertain, however the significant value 0.201 level is greater than alpha value of 0.05($p>0.05$) which means that the responses on the statement are not statistically significant, which means the null hypothesis is accepted and that the opinions of the respondents on this statement is rejected.

Government should encourage and promote institution-industry collaboration to establish a system guided and coordinated by industrial associations.

Table 4.4 shows that government should encourage and promote institution-industry collaboration to establish a system guided and coordinated by industrial associations. 7.3% of the respondents strongly agreed, 9.8% agreed, 39% undecided, 43.9% disagreed and 0% strongly disagreed with the statement. The weighted average 4.2 is within the range 4.5 to 3.5 which indicate that the respondents agreed with the statement. Their responses are statistically significant and their opinion is of high confidence. The significant value 0.000 level which is less than alpha of 0.05 ($p < 0.05$) means that the responses on this statement are not statistically significant which means the null hypothesis is rejected and also the opinions of the respondents regarding the statement is accepted, which is statistically significant.

TVET should retool it teachers to accommodate changes in skills, competence and operating procedures.

Table 4.4 also shows that TVET should retool it teachers to accommodate changes in skills, competence and operating procedures. 3.7% of the respondents strongly agreed, 4.9 agreed, 6.1% undecided, 53.7% disagreed and 31.7% strongly disagreed with the statement. The weighted average 4.05 is within the range 4.5 to 3.5 which indicate that the respondents agreed with the statement. Their responses are statistically significant and their opinion is of high confidence. The significant value 0.000 level which is less than alpha of 0.05 ($p < 0.05$) means that the responses on this statement are not statistically significant, which means the null hypothesis is rejected. And that the opinions of the respondents regarding the statement is accepted which is statistically significant.

Industries should be made aware of and have the curriculum of TVET programmes.

According to Table 4.4, industries should be made aware of and have the curriculum of TVET programmes. 1.2% of the respondents strongly agreed, 7.3% agreed, 4.9% undecided, 46.3% disagreed and 40.2% strongly disagreed with the statement. The weighted average 4.17 is within the range 4.5 to 3.5 which indicate that the respondents agreed with the statement. Their responses are statistically significant and their opinion is of high confidence. The significant value 0.000 level is less than alpha of 0.05 ($p < 0.05$) means that responses on this statement are not statistically significant which means the null hypothesis is rejected. And that the opinions of the respondents on this statement were accepted which is statistically significant.

TVET curriculum consists of industrial training programme.

Regarding the statement TVET curriculum consists of industrial training programme, the table above reveals that 7.3% of the respondents strongly agreed, 4.9% agreed, 50% undecided, 37.3% disagreed and 0% strongly disagreed with the statement. The weighted average 4.18 is within the range of 4.5 to 3.5 which indicate that the respondents agreed with the statement, their responses are statistically significant and their opinion is of high confidence. The significant value here 0.000 level is less than alpha of 0.05($p < 0.05$) means that responses on the statement are not statistically significant which means the null hypothesis is rejected. And that the opinions of the respondents on this statement were accepted and statistically significant.

TVET institutions should work in partnership with industry to ensure employment, employee training and their continuous education.

Table 4.4 shows that TVET institutions should work in partnership with industry to ensure employment, employee training and their continuous education. 2.4% of the respondents strongly agreed, 7.3% agreed, 45% undecided, also 45% disagreed and 0% strongly disagreed with the statement. The weighted average 4.33 is within the range of 4.5 to 3.5 which indicate that the respondents agreed with the statement, their responses are statistically significant and their opinion is of high confidence. The significant value 0.000 level is less than alpha of 0.05($p < 0.05$) indicated that responses on the statement are not statistically significant means that the null hypothesis is rejected. The opinions of the respondents on this statement were accepted and also statistically significant.

The curriculum consists on training skills enhancement programmes (workshop, field trip, real life training e. t. c.)

According to Table 4.4, 3.7% of the respondents strongly agreed that the curriculum consists on training skills enhancement programmes (workshop, field trip, and real life training e. t. c.), also 3.7% agreed, 15.9% undecided, 47.6% disagreed and 29.3% strongly disagreed with the statement. The weighted average 3.95 is within the range of 4.5 to 3.5 which indicate that the respondents agreed with the statement, their responses are statistically significant and their opinion is of high confidence. The significant value 0.000 level is less than alpha of 0.05($p < 0.05$) which means that responses about the statement are not statistically significant which means that the null hypothesis here is rejected. The opinions of the respondents on this statement were accepted and statistically significant.

Table below indicate the analysis of objective two and its interpretation.

Table 4.3: Analysis for the Status of Technical and Vocational Education in the educational system of Nigeria especially in Yobe state

S/NO	Statement	5(SA)	4(A)	3(U)	2(D)	1(SD)	WA	S-value
1.	There is adequate supply of tools and equipment for school workshops.	5 6%	18 21.9%	1 1.2%	35 42.7%	23 28%	3.65	0.017
2.	Government sends its staff for training yearly	10 12.2%	14 17.1%	12 14.6%	26 31.7%	20 24.4%	3.39	0.275
3.	TVET students go for excursion study to various industries	1 1.2%	11 13.4%	4 4.9%	36 43.9%	30 36.6%	4.01	0.000
4.	Better condition of service should be provided for TVET teachers	1 1.2%	4 4.9%	2 2.4%	40 48.8%	35 42.7%	4.27	0.000
5.	Our curriculum enables the students to come back and complete the courses after leaving for some reasons e. g. leave schooling for more than one year	6 7.3%	20 24.4%	13 15.9%	18 22%	24 29.3%	3.42	0.014

According to the Table 4.2 above, the researcher identified the status of technical and vocational education in the educational system of Nigeria especially in Yobe state, the result were analyzed and interpreted.

There is adequate supply of tools and equipment for school workshops.

With regard to school workshops' there is adequate supply of tools and equipment for school workshops. Table 4.2 reveals that 6% of the respondents strongly agreed, 21% agreed, 1.2% undecided, 42.7% strongly disagreed and 28% disagreed with the statement. The weighted average 3.62 is within the range of 4.5 to 3.5 which indicate that the respondents agreed that there is adequate supply of tools and equipment for school workshop. Their responses are statistically significant. The significant value 0.017 level which is less than alpha of 0.05($p < 0.05$) means that the responses on this statement are not statistically which means the null hypothesis is rejected and the opinions of the respondents on this statement were accepted which is statistically significant.

Government sends its staff for training yearly.

As we may see from the table 4.2 it's revealed that 12.2% of the respondents strongly agreed that government sends its staff for training yearly, 17.1% agreed, 14.6% undecided, 31.7% strongly disagreed while 2.4% disagreed with the statement. The weighted average 3.39 is within the range 3.5 to 2.5 which indicated that the respondents are uncertain with the statement. However, the significant value 0.275 level is greater than alpha value of 0.05($p > 0.05$) which means that the responses are not statistically significant which means the null hypothesis is accepted and that the opinions of the respondents on the statement were rejected which means government did not send its staff for training yearly.

TVET students go for excursion study to various industries.

Table 4.2 reveals that TVET students go for excursion study to various industries. 1.2% of the respondents strongly agreed, 13.4% agreed, 4.9% undecided, 43.9% disagreed while 36.6% strongly disagreed with the statement. The weighted average 4.01 is within the range 4.5 to 3.5 which indicate that the respondents agreed that TVET students go for excursion study to various industries. Their responses are statistically significant and their opinion is of high confidence. The significant value 0.000 level which is less that alpha of 0.05($p < 0.05$) means that the responses regarding this statement is accepted which is statistically significant.

Better condition of service should be provided for TVET teachers.

From table 4.2 above it may be seen that only 1.2% of the respondents strongly agreed, 4.9% agreed that better condition of service should be provided for TVET teachers, 2.4% of them were undecided, 48.8% strongly disagreed and 42.7% disagreed that better condition of service should be provided for TVET teachers. The weighted average of 4.27 which is within the range 4.5 to 3.5 which indicate that the respondents agreed better condition of service should be provided for TVET teachers and their responses were statistically significant, which means the null hypothesis is rejected. We may conclude that it was statistically significant to say that better condition of service should be provided for TVET teachers.

Our curriculum enables the students to come back and complete the courses after leaving for some reasons e. g. leave schooling for more than one year.

It may be seen in table 4.2 that 7.3% of the respondents strongly agreed, 24.4% agreed that our curriculum enables the students to come back and complete the courses after leaving for some reasons e. g. leave schooling for more than one year, 15.9% of the respondents were undecided, 22% strongly disagreed and 29.3% disagreed. The weighted average of 3.42 is within the range 3.5 to 2.5 which indicate that the respondents are uncertain with the statement. Their responses are not statistically significant and their opinion is of low confidence. However, the significant value 0.014 level which is greater than alpha of 0.05 ($p > 0.05$) means that the responses on this statement are not statistically significant which means the null hypothesis is accepted. And the opinions of the responses on this statement is rejected which is statistically not significant.

Table 4.4: The Trends in the Development of Technical and Vocational Education

S/NO	Statement	5(SA)	4(A)	3(U)	2(SD)	1(D)	WA	S-value
1.	There is special incentive For TVET teachers	16 19.5%	32 39%	6 7.3%	17 20.7%	11 13.4%	2.7	0.009
2.	More funds are made available for TVET institutions	11 13.4%	33 40.2%	10 12.2%	26 31.7%	2 2.4%	2.7	0.009
3.	Policy documents for TVET are integrated in the formal and non-formal sectors to strengthen the link between the two sectors	10 12.2%	15 18.3%	29 35.4%	17 20.7%	11 13.4%	3.05	0.168
4.	Government places TVET teachers more salary steps higher than their counter parts with the same qualification, but in different domain	18 21.9%	33 40.2%	2 2.4%	15 18.3%	14 17%	2.68	0.131
5.	There is lack of regular promotion for teachers	4 4.9%	15 18.3%	7 8.5%	30 36.6%	28 34.1%	3.72	0.001

There is special incentive for TVET teachers.

From table 4.3 above it may be seen that 19.5% of the respondents strongly agreed, 39% agreed and majority of them that there is special incentive for TVET teachers, 7.3% of them were undecided, 20.7% strongly disagreed while 13.4% disagreed. The weighted average 2.7 is within the range of 3.5 to 2.5 which indicate that the respondents are uncertain with the statement. Their responses are not statistically significant and their opinion is of low confidence. The significant value 0.164 level which is greater than the alpha of 0.05($p > 0.05$) means that the responses on

this statement are not statistically significant which means the null hypothesis is accepted. And that the opinions of the responses on this statement is rejected which is not statistically significant.

More funds are made available for TVET institutions.

It may be seen from table 4.3 that 13.4% of the respondents strongly agreed, 40.2% agreed that more funds are made available for TVET institutions and majority of them, 12.2% of them were undecided, 31.7% strongly disagreed and 2.4% disagreed that more funds are made available for TVET institutions. The weighted average 2.7 is within the range of 3.5 to 2.5 which indicate that the respondents are uncertain, however the significant value 0.169 level is greater than alpha value of 0.05($p > 0.05$) which means that the responses on this statement are not statistically significant which means the null hypothesis is accepted and that the opinions of the respondents on this statement were rejected which means more funds were not made available for TVET institution.

Policy documents for TVET are integrated in the formal and non-formal sectors to strengthen the link between the two sectors.

It may be seen from table 4.3 that 12.2% of the respondents strongly agreed, 18.3% agreed that policy documents for TVET are integrated in the formal and non-formal sectors to strengthen the link between the two sectors, 35.4% of the respondent were undecided, 20.7% strongly disagreed and 13.4% disagreed that policy documents for TVET are integrated in the formal and non-formal sectors to strengthen the link between the two sectors. The weighted average is 3.05 is within the range of 3.5 to 2.5 which indicate that the respondents are uncertain with the statement. Their responses are not statistically significant which means the null hypothesis is rejected. And the opinions of the respondents on the statement were accepted which is statistically significant.

Government places TVET teachers more salary steps higher than their counter parts with the same qualification, but in different domain.

It may be seen from table 4.3 that 21.9% of the respondents strongly agreed, 40.2% agreed and the majority of them that government places TVET teachers more salary steps higher than their counter parts with the same qualification, but in different domain, 2.4% of the respondents were undecided, 18.3% strongly disagreed and 17% disagreed with the statement. The weighted average value is 2.68 which is within the range of 3.5 to 2.5 which indicate that the respondents

are uncertain on this statement. The responses are not statistically significant and their opinion is of low confidence. However, the significant value 0.131 level which is greater than alpha of 0.05($p > 0.05$) means that the responses on this statement are not statistically significant which means the null hypothesis is accepted. And the opinions of the respondents are rejected which is statistically not significant.

There is lack of regular promotion for teachers.

It was found out on table 4.3 that 4.9% strongly agreed, 18.3% agreed that there is lack of regular promotion for teachers, 8.5% of the respondents were undecided, 36.6% strongly disagreed and 34.1% disagreed with the statement. The weighted average 3.72 is within the range of 4.5 to 3.5 which indicate that the respondents agreed with the statement, their responses are statistically significant and their opinion is of high confidence. The significant value 0.001 level which is less than alpha of 0.05($p < 0.05$) means that the responses this statement are not statistically significant which means the null hypothesis is rejected. And the opinions of the respondents is accepted which is statistically significant.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The last chapter presents the details of the summary, discussion of findings, conclusion and recommendation as well as suggestion for further studies.

5.1 Summary

The aim and the purpose of this study were to determine the role of TVET in development of technical manpower in Yobe state of Nigeria: The case of Electrical technicians.

The objectives of the study were to find out;

1. The aims and objectives of technical and vocational education.
2. The status of technical and vocational education in the educational system of Nigeria especially in Yobe state.
3. The trends in the development of technical and vocational education

Questionnaire was designed which consist of five point scale type of statements, where the respondents had to select the best correspond to their opinions. The valid for the questionnaire was approved by an experts and it was designed in a simple format for better understanding. Weighted average and Chi square tests were conducted and used to analyze and interpret the data using Statistical Package for Social Science (SPSS) software version 20.

The population of the study was selected from technical colleges in Yobe state, Nigeria which consists of principals, TVET teachers and students for the amenity of data collections of this study. For determination of the role of TVET in development of technical manpower in Yobe state of Nigeria: The case of Electrical technicians opinions were collected from principals, TVET teachers and students of the two (2) technical colleges mentioned in the sample. 100% percent rate of questionnaires were fully returned and received with no missing question (unanswered), the required data were generated and analyzed using SPSS software version 20 from the collected copies of the questionnaires where all of the data were interpreted.

At the level of significance of 0.05 using Chi square test, collected data statistically analyzed, percentage and weighted average were also calculated.

The finding of the study determined the status of technical and vocational education in the educational system of Nigeria particularly in Yobe state, the trends in the development of technical and vocational education and also revealed the aims and objectives of technical and vocational education. The data collected were highly analyzed with weighted average.

5.2 Discussion of findings

5.21 Finding on the aims and objectives of technical and vocational education.

The findings revealed that the respondents identified the following as the ways to achieve the aims and objectives of TVET; TVET curriculum has to provide knowledge and skills required in the world of work, as recommended by Jonathan C. N. and Micah E. M. (2017) that education is the oldest field of endeavor known to humanity. Nation are in a race to develop and improve their educational system because, according to Vijay (2017), Education is a tool that improves functional and analytical ability and thereby opens up opportunities for individuals and groups to achieve greater access to labour markets and livelihoods. Education is not only an instrument of enhancing efficiency but is also an effective tool of widening and augmenting democratic participation and upgrading the overall quality of individual and society life. To this end, one of the philosophy of education as enshrined in the National policy on education (NPE) (2013) is the belief that education is an instrument of national development and social change. It is a universal fact that no society can develop beyond the educational level its citizenry. Therefore, to develop a nation economically, one needs to develop the educational system.

TVET in form of indigenous skill acquisition, development and utilization is as old as man himself. The Holy Bible (2016) in Genesis 2:15 say, The Lord God put the man in the Garden of Eden to work the soil and take care of the garden. While talking about lessons from the Glorious Qur'an Islam Kotob (2008) says, due to God's infinite wisdom, Adam and his descendants were to be the caretakers on earth, so God taught Adam what he needed to know to perform this duty. From the account of creation events in the Bible and Qur'an, God himself was the first TVET instructor and Adam, the first student. The indigenous African tradition and culture is solely based on skill acquisition and development, from farming to hunting, traditional medicine to craft, apprenticeship was based on watch, observation and do as I do is the system of learning techniques and skills needed to be a master in one's field of vocation.

Industrial policy is linked to TVET programmes for effective TVET Manpower development for the industries. According to the findings by Israels agency for International Development cooperation (2017) Technical and vocational education is used as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life."

Working towards an educational environment which contributive to sustainable and globalization.

Aims

- To encourage a wide dialogue and analysis of policy-making processes, of didactic and administrative aspects and of teacher training programme in the TVET field.
- To analyze the place and role of TVET within national development.
- To acquaint the participants with new concepts, methods, and tools regarding different skills towards TVET.
- To present various educational projects and curriculum models used in Israel.
- To share and exchange experiences and knowledge gained in the participants' countries of origin.
- To adapt the teaching environment to new approaches of technologies.
- To acquaint participants with a variety of learning methods and applications.
- To enable the participants to maximize the pedagogical tools in teaching and learning into TVET.

The term vocational education is general and includes every form of education that aims to the acquirement of qualifications related to a certain profession, art or employment or that provides the necessary training and the appropriate skills as well as technical knowledge, so that students are able to exercise a profession, art or activity, independently of their age and their training level, even if the training program contains also elements of general education (Kotsikis, 2007). Vocational training is generally defined as the part of vocational education that provides the specialized professional knowledge and skills, which attribute professional adequacy to the trainee and are the focus of every vocational training program. Vocational training can be seen as an activity or a set of activities designed in order to transmit theoretical knowledge and also professional skills that are required for certain types of jobs (Kotsikis, 2007). As an educational policy, it refers to the initial vocational training, whose aims are connected to the given offer and demand of specialties, as they are formed by the structural characteristics of each county's economy (Mortaki, 2012)The main aims of VET are considered the following:

- To enhance the trainees who have completed the highest level of secondary education.
- To develop the professional knowledge and skills required for the practice of a profession.
- To evaluate the participants' educational level, in order for them to become competitive professionals in the future (Kamminga & Zia-Zarifi, 2000)
- To assist the students in their gentle adjustment to the changes in the productive procedures.
- To provide specialized training initial or continuing.
- To satisfy the continuously changing needs of the labor market.
- To cultivate the integration of the students in professional life and in community as well.
- To enforce the European, and also global, dimension of vocational training (Kamminga & Zia-Zarifi, 2000).

- To contribute to the acquirement of economical knowledge and skills that the organization and evolution of a profession demands.
- To assist to the acquaintance with the codes of social values, the integration of culture. Through professional socialization and the creation of a behavioral and social code that constitute the Professional deontology.
- To prepare for the exercise of the rights as well as obligations of the citizen as a professional (security, protection, social benefits, taxes etc.) (Kotsikis, 2007).

5.22 Findings on the status of technical and vocational education in the educational system of Nigeria especially in Yobe state.

The findings of the study revealed that the status of technical and vocational education in the educational system of Nigeria especially in Yobe state, in spite of several efforts by the government through different policies to make technical and vocational education in the educational system of the country more functional, there are still growing concerns among education stakeholders and industrialists most of our graduates from our educational institutions lack sufficient practical background and relevant job related skills for employment in industries. This is in line with findings of (Oviawe, Uwameiye, & Uddin, 2017) Employers of labour have continued to express their worry over the quality of the current graduates of TVET institutions in Nigeria who are experiencing set-backs due to lack of relevant job skills for employment in the 21st century (Oviawe et al., 2017).

The 21st century workplace is unique and only people with adequate skills can serve. The unique characteristics of the 21st century according to (Aguba, 2010) in (Iroriteraye-Adjekpovu, 2013) include: (i) a scientific and computer world; (ii) a technological or jet age demanding efficient use of computer in all spheres of life; (iii) an age requiring sound scientific and technological skills for children to cope with its complexity; (Sullivan, Joshi, & Leonard) a world where emphasis will be more on accuracy, competence, efficiency and effectiveness which are derived from educational foundation; and (v) an era of highly skilled practitioners and generalists. These unique characteristics have made employers of labour to find graduates unusable in the world of work.

The skill gap in most TVET graduates in Nigeria being subjected to series of retraining programmes because most of them are considered to be ill equipped and adjudged unemployable based on the quality of training acquired (Oviawe et al., 2017).

The findings of the study also revealed that most of TVET teachers lack competency as far as practical aspect is concern, and this is due to lack of staff training. And this is in line with the findings of (Hamisu et al., 2017) the emphasis is competency based training is on “performing” rather than just “knowing”. Competency according to (Dubois & Rothwell, 2004a) is defined in terms of what a person is required to do (performance), under what conditions it is to be done

(conditions) and how well it is to be done (standards). Competency based training promotes education and training in TVET institutions for the world of work (Klein-Collins, 2013).

5.23 Findings on the trends in the development of technical and vocational education.

The objective was to identify the trends in the development of technical and vocational education in Nigeria particularly in Yobe state. The findings revealed that technical and vocational education in Yobe state had a slow start and also developed slowly than other domains of education. The number of technical colleges and vocational/craft centers are not adequate for the state, and there is lack of sufficient workshop facilities. This is related with the findings of (Isah Usman, Celement, & Raihan) who reported that the graduated students could not compete with the challenges in workplaces; as (Nkokelonye, 2008) & (Kennedy, Udoetuk, & Ufot, 2017) stated, many students who have pursued TVE in Nigeria often find themselves with general or theoretical knowledge that does little to prepare them for the actual tasks or skills they are encountering on their job interviews. Related to the Trends in Policy-making, Planning and Implementation of TVE Programmes in Nigeria. This study revealed that, „there was inadequate numbers of expert in designing TVE curriculum“ there was „lack of involvement of TVE Educators in educational planning“. According (Finch & Crunkilton, 1999) they noted that, the character of any curriculum is determined by the personalities and policies behind it. Therefore, to come up with a dynamic curriculum that would be responsive to the needs of the changing national economy, the issue of the right participant in the formulation of such a curriculum policy and design must be tackled.

The findings also revealed that government does not make more funds available for TVET institution. This agreed with findings of (Laryea & Ibem, 2017) and (Gábor, 2011) Vocational and Technical Education is best served by a variety of public and private providers. The appropriate blend can be found in many ways, with the responsibility of government being to facilitate choice while ensuring quality. The Government and the private sector should recognize that vocational and technical education is an investment, not a cost, with significant returns, including the well-being of workers, enhanced productivity and international competitiveness. Therefore, funding of vocational and technical education should be shared to the maximum extent possible between government, industry, the community and the learner, with government providing appropriate financial incentives. (Armbrust et al., 2010) Particular attention should be given to planning the development and expansion of technical and vocational education by:

- Establishing a national body responsible for coordinating planning in Vocational and Technical education based on analysis of statistical data and projections to facilitate complementarities between educational policy planning and employment policy.
- Giving high priority to Vocational and Technical education in national development as well as in plans for educational reform.
- Evaluating national short-term and long-term needs.
- Providing appropriate current and future allocations of financial resources.

5.3 Conclusion

The aim of the study was to determine the role of TVET in development of technical manpower in Yobe state of Nigeria. According to the findings from the analyzed and interpreted data the following conclusions were made:

1. Most of the respondents believed that the way to achieve the aims and objectives of TVET has to do with the curriculum, the curriculum has to provide knowledge and skills required in the world of work. And also to develop a nation economically one needs to develop the educational system. Therefore, lack of such ideas will certainly affect the achievement of the aims and objectives of TVET. So from the findings it's indicated that curriculum and educational system of a country have effect on improving the way to achieve the aims and objectives of TVET.
2. Majority of the respondents agreed that government has to made more funds available for TVET institutions. And also special incentive should be given to TVET teachers to motivate them, this can improve and reform the quality of TVET programme in the state.
3. The respondents believed that adequate supply of tools and equipment for school workshop will improve the performance of the students in practical aspect, and better condition of service should be provided for teachers.

5.4 Recommendation

Based on the research findings and conclusions on “The role of TVET in development of technical manpower in Yobe state of Nigeria.” The case of Electrical technicians. The following recommendations were made which can play an important role in developing technical manpower and improving quality education as far as TVET is concern.

1. Government should supply adequate tools and equipment for school workshops in technical colleges of Yobe state.
2. Government should also send its technical colleges staff for training yearly for effective implementation and practical teaching and learning of TVET.
3. TVET institutions within Yobe state and Nigeria in general should work in partnership with industry to ensure employment, employee training and their continuous education.
4. Government and non-governmental agencies should provide more funds available for TVET institutions.
5. Government should also encourage and promote institution-industry collaboration to establish a system guided and coordinated by industrial associations.

Bibliography

- Aguba, C. (2010). Peace education in Nigerian Universities: An imperative for the curriculum planners. *Nigerian Journal of Curriculum Studies*, 17(3), 8-13.
- Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., . . . Stoica, I. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58.
- Barau, S. (2015). Enhancing Teaching and Learning of Electrical Power Engineering in the Nigerian Tertiary Institutions. *International Journal of Learning and Teaching*, 1(1), 55-58.
- Dialoke, I. Role of Training in Developing Economy: A Review of Ghana and South Africa.
- Dike, V. E. (2009). Addressing youth unemployment and poverty in Nigeria: A call for action, not rhetoric. *Journal of Sustainable Development in Africa*, 11(3), 129-151.
- Dike, V. E. (2012). Human capital development, technological capabilities and national development: The Nigerian experience. *African Journal of Science, Technology, Innovation and Development*, 4(2), 11-28.
- Dike, V. E. (2013). *Technical and Vocational Education and Training (TVET): Understanding the Nigerian Experience*: Drexel University.
- Drucker, P. (2013). *Managing for the Future*: Routledge.
- Dubois, D., & Rothwell, W. (2004a). *Competency-Based Human Resource Management: Discover a New System for Unleashing the Productive Power of Exemplary Performers*: Nicholas Brealey.
- Dubois, D., & Rothwell, W. (2004b). Competency-based or a traditional approach to training? *T AND D*, 58(4), 46-57.
- Erhuraa, H. (2007). Skills acquisition: A tool for youth empowerment for economic growth and development. *Journal of business and management studies*, 1(2), 116-125.
- Ernest, K., Matthew, S. K., & Samuel, A. K. (2015). Towards Entrepreneurial Learning Competencies: The Perspective of Built Environment Students. *Higher Education Studies*, 5(1), 20-30.
- Famiwole, R. O. (2012). Fund Sourcing Strategies to Boost the Status of In-School Youth Organization Programmes and Activities in Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(4), 501.
- Finch, C. R., & Crunkilton, J. R. (1999). *Curriculum development in vocational and technical education. planning, content, and implementation*: ERIC.
- Gábor, T. (2011). Lexica Afroasiatica XI. *Вестник РГГУ. Серия «Филология. Вопросы языкового родства»*(16 (78)).
- GARBA, N. L., & BUKAR, B. REFORMING TECHNICAL VOCATIONAL EDUCATION AND TRAINING FOR PEACE AND DEVELOPMENT IN NIGERIA.
- Hamisu, M. A., Salleh, K. M., Sern, L. C., Adamu, B. Y., & Gambo, K. (2017). Proposed Competency Model for Technical and Vocational Education and Training (TVET) Lecturers Teaching in Technical Colleges, Bauchi State in Perspective. *Traektoriâ Nauki= Path of Science*, 3(9).
- Hodge, S., & Harris, R. (2012). Discipline, governmentality and 25 years of competency-based training. *Studies in the Education of Adults*, 44(2), 155-170.
- Hollander, A., & Mar, N. Y. (2009). Towards achieving TVET for all: the role of the unesco-unevoc international centre for technical and vocational education and training *International handbook of education for the changing world of work* (pp. 41-57): Springer.

- Holmberg, S., Handley, A., Bahr, J., Baskeit, P., Bossaert, L., Chamberlain, D., . . . Juchems, R. (1992). Guidelines for basic life support: a statement by the Basic Life Support Working Party of the European Resuscitation Council, 1992. *Resuscitation*, 24(2), 103-110.
- Iroriteraye-Adjekpovu, J. (2013). Vocational education teachers' preparation for the use of information and communication technology tools to enhance sustainable economic development. *Nigerian Vocational Association Journal (NVAJ)*, 18(1), 24-32.
- Isah Usman, D., Celement, C. K., & Raihan, M. A. A Study of the Problems for Development of Technical and Vocational Education in Katsina State, Nigeria.
- Jabbari, L. (2015). The Study of Technical and Vocational Education and Training Needs of Dairy and Cooking Oil Producing Companies in Tehran Province. *Journal of Education and Practice*, 6(10), 97-102.
- Jones, E. A., & Voorhees, R. A. (2002). Defining and Assessing Learning: Exploring Competency-Based Initiatives. Report of the National Postsecondary Education Cooperative Working Group on Competency-Based Initiatives in Postsecondary Education. Brochure [and] Report.
- Kamminga, M. T., & Zia-Zarifi, S. (2000). *Liability of multinational corporations under international law* (Vol. 7): Springer.
- Kazmi, S. W. (2007). Vocational education and skills development: A case of Pakistan. *SAARC Journal of Human Resource Development*, 3(1), 105-117.
- Kennedy, G. W., Udoetuk, U. S., & Ufot, S. I. (2017). Challenges of Technical Vocational Teacher Education and Teaching in Nigeria: The Need for Intervention. *International Journal of Education and Evaluation*, 3(7).
- Klein-Collins, R. (2013). Sharpening our focus on learning: The rise of competency-based approaches to degree completion. *Occasional Paper*, 20.
- Kollöffel, B., & de Jong, T. (2013). Conceptual understanding of electrical circuits in secondary vocational engineering education: Combining traditional instruction with inquiry learning in a virtual lab. *Journal of engineering education*, 102(3), 375-393.
- Kotsikis, V. (2007). Educational administration and policy. *Athens: Ellin*.
- Laryea, S., & Ibem, E. O. (2017). *Proceedings of the WABER 2017 Conference*.
- Majumdar, S. (2009). Major challenges in integrating sustainable development in TVET. *CPSC, Manila*.
- Mortaki, S. (2012). The Contribution of Vocational Education and Training in the Preservation and Diffusion of Cultural Heritage in Greece: The Case of the Specialty "Guardian of Museums and Archaeological Sites". *International Journal of Humanities and Social Science*, 2(24), 51-58.
- Nkokelonye, C. (2008). Skills and competencies needed by education history graduates for higher production and productivity in Nworgu BG. *A Reform Agenda: Educational Reforms and the Attainment of Millennium Development Goals: The Nigerian Experience*. Nsukka: University Trust publishers.
- Nuru, A. (2007). *The Relevance of National Vocational Education Qualifications (NVQS) in TVE in Nigeria*. Paper presented at the unpublished conference paper.
- Nwankwo, M. C., & Okoye, K. (2015). Influence of College Clubs in Increasing Students' Interest and Achievement in Nigerian Post-Primary Schools as Perceived by Science Students. *Journal of Education and Practice*, 6(18), 184-193.

- Obara, J., & Abulokwe, A. (2012). Utilization of e-learning for effective teaching of vocational education courses in Nigeria. *International Journal of Research Development (Global Academic Group)*, 7(1).
- Okafor, C. (2008). The role of vocational and technical education in manpower development and job creation in Nigeria.
- Okorafor, A., & Nnajiifo, F. (2017). TVET POLICIES AND PRACTICES IN NIGERIA: WHY THE GAP. *European Journal of Education Studies*.
- Okoye, K., & Michael, O. I. (2015). Enhancing Technical and Vocational Education and Training (TVET) in Nigeria for Sustainable Development: Competency-Based Training (CBT) Approach. *Journal of Education and Practice*, 6(29), 66-69.
- Okoye, K., & Okwelle, P. (2014). Technical Vocational Education and Training (TVET) as intervention mechanism for global competitiveness: perspectives from Nigeria. *Developing Country Studies*, 4(4), 85-91.
- Olaitan, S. (1996). Vocational and technical education in Nigeria: issues and analysis. *Onitsha: Noble Graphic Publishers*.
- Oluwale, B., Jegede, O., & Olamide, O. (2013). Technical and vocational skills depletion in Nigeria and the need for policy intervention. *International Journal of Vocational and Technical Education*, 5(6), 100-109.
- Oviawe, J. I., Uwameiye, R., & Uddin, P. S. (2017). Bridging Skill Gap to Meet Technical, Vocational Education and Training School-Workplace Collaboration in the 21 st Century. *International Journal of Vocational Education and Training Research*, 3(1), 7.
- Ri-qiang, H. (2004). The Current Vocational Education System in Norway. *Journal of Yellow River Conservancy Technical Institute*, 2, 026.
- Serumu, I. (2014). Challenges of implementing technical and vocational education and training curriculum in Nigerian Universities. *Global Advanced Research Journal of Educational Research and Review*, 3(5), 99-101.
- Sullivan, A., Joshi, H., & Leonard, D. (2010). Single-sex schooling and academic attainment at school and through the lifecourse. *American Educational Research Journal*, 47(1), 6-36.
- Teerah, L., Amaehule, S., & Enyekit, E. (2011). Achieving Human Capital Development in Nigeria through Vocational Education for Nation Building. *Journal of Humanistic and Social Studies*, 2(2), 131-139.
- Travers, N. L., & McQuigge, A. (2013). The global learning qualifications framework. *PLA Inside Out*, 2(1), 1-2.
- Uddin, P. (2013). Viable Technical Vocational Education and Training as a Means of Employment Generation for the Nigeria Youths. *Research Journal in Organizational Psychology and Educational Studies (RJOPEs)*, 2(6), 296.
- Udofia, A., Ekpo, A., Nsa, E., & Akpan, E. (2012). Instructional variables and students' acquisition of employable skills in vocational education in Nigerian technical colleges. *Scholarly Journal of Education*, 1(2), 13-19.
- Unesco. (1999). *Operational guidelines for the implementation of the world heritage convention: UNESCO*.
- Urama, M. S., & Ndidi, O. (2012). Manpower development in technical and vocational education (TVE): A prerequisite for the technological development of Nigeria. *Knowledge Review: A Multidisciplinary Journal*, 26 (4) 129, 135.
- Zulueta, F. M., & Costales Jr, N. E. B. (2003). *Methods of research*. Thesis-Writing and Applied Statistics.

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Dear Respondent,

REQUEST FOR COMPLETION OF QUESTIONNAIRE

I am a final year student of Master of Science in Technical Education (Electrical and Electronic) from the institution mentioned above. I am conducting a research on the topic: "The Role of TVET in Development of Technical Manpower in Yobe State of Nigeria".

I am soliciting for your assistance and cooperation in getting information that can assist me to achieve the objectives of this study. Your information will be considered confidentially.

Yours faithfully,

Mohammed Ali Zanna

161031205

SECTION A:
General Information

Kindly complete the questionnaire after selecting your gender and position.

Gender: Male Female
 Position: Principal Teacher Student

SECTION B:
Research Question

Tick the appropriate alternative that reflects your opinion by the following scale:

SA: Strongly agree

A: Agree

U: Undecided

D: Disagree

SD: Strongly disagree

S/NO.	Item Statement	SA	A	U	D	SD
01.	There is adequate supply of tools and equipment for school workshops.					
02.	There is Special incentive for TVET teachers.					
03.	More funds are made available for TVET institutions.					
04.	Policy documents for TVET are integrated in the formal and non-formal sectors to strengthen the link between the two sectors.					
05.	Government places TVET teachers more salary steps higher than their counter parts with the same qualification, but in different domain.					
06.	Industrial policy is linked to TVET programmes for effective TVET Manpower development for the industries.					
07.	There is lack of regular promotion for teachers.					
08.	Government should encourage and promote institution-industry collaboration to establish a system guided and coordinated by industrial associations.					
09.	TVET should retool it teachers to accommodate changes in skills, competence and operating procedures.					
10.	Better condition of service should be provided for TVET teachers.					

11.	TVET institutions should work in partnership with industry to ensure employment, employee training and their continuous education.					
12.	Government sends its staff for training yearly.					
13.	Industries should be made aware of and have the curriculum of TVET programmes.					
14.	TVET curriculum consists of industrial training programme.					
15.	TVET students go for excursion study to various industries.					
16.	The curriculum consists of on training skills enhancement programmes (workshop, field trip, real life training etc).					
17.	Our curriculum enables the students to come back and complete the courses after leaving for some reasons e. g. leave schooling for more than one year.					