

UNIVERSITY OF CAPE COAST

ACADEMIC PROGRESSION OF GRADUATES FROM TECHNICAL
INSTITUTIONS IN GHANA TO TERTIARY INSTITUTIONS:
THE CASE OF CAPE COAST TECHNICAL INSTITUTE

KWEKU GYANO KORSAH

2013

UNIVERSITY OF CAPE COAST

ACADEMIC PROGRESSION OF GRADUATES FROM TECHNICAL
INSTITUTIONS IN GHANA TO TERTIARY INSTITUTIONS:
THE CASE OF CAPE COAST TECHNICAL INSTITUTE

BY

KWEKU GYANO KORSAH

DISSERTATION SUBMITTED TO THE INSTITUTE FOR
DEVELOPMENT STUDIES OF THE FACULTY OF SOCIAL
SCIENCES, UNIVERSITY OF CAPE COAST, IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF ART
DEGREE IN HUMAN RESOURCE DEVELOPMENT.

DECEMBER, 2013

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Name.....

Signature.....Date.....

Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Name.....

Signature.....Date.....

ABSTRACT

The study sought to examine the factors that impede the academic progression of graduates from technical institutions to the Polytechnics and the Universities. The study used the descriptive research design in a social survey, with the Cape Coast Technical Institute as a case study. Questionnaires were the main instruments for data collection. The findings were analyzed with the SPSS computer software and presented in frequency tables and percentages.

The study revealed that Technical Education curriculum must be revised. The existing Technical Education structure does not attract more candidates to opt for technical education. Majority of technical institute students considered the studying of the core-subjects had improved their performance and will enhance their chances to pursue higher education. All the TI students wanted core-subjects to be compulsory and examinable. TI graduates were not put on appropriate level of job placement in industry. Acquired skills at school alone were not enough to make TI graduates self-employed. Lack of financial support to acquire basic tools had discouraged graduates to become self-employed.

The study recommends that Ghana Education Service and the Ministry of Education should consider revising the existing structure, curriculum, and syllabus of Technical Institutions to reflect technological advancement and core-subjects made examinable in the final year of technical education to enable students to use the certificate to seek admission at the tertiary just like the SHS student.

ACKNOWLEDGEMENTS

I wish to express my profound gratitude to my supervisor, Dr. E.K. Ekumah for his invaluable advice, encouragement and guidance throughout this work.

I also express my gratitude to the lecturers in the Institute for Development Studies, University of Cape Coast especially Professor C. K. Brown and Drs Nana Gharthey for their contributions towards this dissertation.

I am also grateful to my elder brother, Papa Kwesi Baah Korsah and his wife, Mrs. Lizzy Korsah for their support and encouragement towards my education at all levels, without them, I couldn't have completed this programme.

Special thanks to all my friends especially, Dr. Luke Adorbila Akaguri of blessed memory, and Mr. Ayub Dankwa for the encouragement and all the support I had from them.

However, I remain entirely responsible for any flaws and weaknesses that may be detected in this piece of work.

DEDICATION

This dissertation is dedicated to all students who are pursuing Technical and Vocational Education in Ghana.

TABLE OF CONTENT

Content	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF ACRONYMS	x
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	3
Objectives of the Study	4
Research Questions	5
Scope of the study	5
Organization of the study	5
CHAPTER TWO: LITERATURE REVIEW	
Introduction	7
Education Reform in Ghana	8
Development of TVET in the Gold Coast	9
The existing form of vocational and technical education in Ghana	11
Objectives of TVET in Ghana	13
Technical/Vocational Graduates and wage employment	14
Content framework of technical and Vocational Education	17
Vocation/Technical Education as continuing Education	17
Vocational Schools	18

The concept of Vocational interest	21
Theories of Vocational Development	23
Super's Theory of Vocational Behaviour	23
Ginzberg's Theory of Vocational Behaviour	26
Trait and Factor Theory of Vocational choice (Parsonian model)	28
Socio cultural Theory of Vocational Choice	30
Career Information	30
People's Attitude towards Technical and Vocational Education	31
Training to Accelerate Industrial Development	32
White paper on previous educational reforms in Ghana	35
Review of Technical, Vocational and Agricultural education	36
Review of apprenticeship and skills training	37
CHAPTER THREE: METHODOLOGY	
Introduction	39
The Study organization	39
Research Design	40
Study Population	41
Sampling Procedure	42
Sources of Data	44
Data collection methods	45
Data Collection Instruments	45
Pretest	45
Fieldwork	46
Data Processing and Analysis	46

CHAPTER FOUR: RESULTS AND DISCUSSION

Introduction	47
Background characteristics of respondents	47
Curriculum and structure of Technical Education in Ghana	47
The admission requirements	57
Core-subjects	58
People's attitudes towards TE	60

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction	63
Summary	63
Conclusions	65
Recommendations	66

REFERENCES	68
------------	----

APPENDIX

I - Questionnaire for students of CCTI	72
II - Questionnaire for graduates of Technical Education	78
III - Questionnaire for head of departments (HOD) and teaches	80

LIST OF TABLES

Table	Page
1 Distribution of the study population by category	41
2 Sampling distribution of respondents	42
3 Student population by department and sample size	44
4 Perceptions of HODs on curriculum of TE	49
5 Perceptions of HODs on TE syllabus making room for practical training	50
6 Perceptions of HODs on TE syllabus being current with technology	50
7 HODs and teachers perception on existing TE structure	51
8 Perceptions of HODs on current curriculum	52
9 HODs on TE structure attracting candidates	53
10 HODs perceptions on preparing graduates for self-employment	54
11 HODs on skills acquired enough for self-employment	55
12 Core-subjects enhance student's chances to pursue higher education	58
13 Students' responses on core-subjects broaden their knowledge	59
14 Perception of HODs on students attitude to learn practical skills	61

LIST OF ACRONYMS

CCTI - Cape Coast Technical Institute

GE - General Education

KNUST- Kwame Nkrumah University of Science and Technology

SHS - Senior High School

SPSS - Statistical Product and Service Solution

SSS - Senior Secondary School

TE - Technical Education

TI - Technical Institution

TVET - Technical and Vocational Education Training

CHAPTER ONE

INTRODUCTION

Background to the Study

Education is regarded as the process by which individuals acquire knowledge, skills and attitudes, which enable them to develop their faculties in full. It is generally accepted that one of the benefits of good education is that it enables individuals to contribute to development and improvement in the quality of life for themselves, their communities as well as the entire nation.

Education therefore plays very important role in human resource development. Human resource development is said to be a set of systematic and planned activities designed by an organization to provide its members with necessary skills for current and future job demands. Thus, some of the importance of human resource development includes ensuring efficiency in work contributes to growth of the economy, leads to improvement in productivity, better income and improved quality of life and finally, it contributes to equal opportunities.

Technical education is that type of education designed at the second cycle and lower tertiary levels to prepare middle-level personnel (technicians, middle level management etc.) and at the university level to prepare engineers and technologists for high management position. Technical education includes general education, theoretical, scientific and technical studies as well as related skill training. Vocational education is that type of education designed to prepare skilled personnel at lower levels of qualification for one or a group of occupation, trades

of jobs. Vocational education includes general education and related theory but the major emphasis is on practical training.

Human resource development in the area of technical vocation in Ghana has been traditionally based. In the traditional system of technical vocational training, learners acquired skills through observation and imitation of their master/trainers. This form of vocational and technical training existed in Ghana before the arrival of the colonial masters. However, the kind of skills learners acquired was rudimentary. Annoh (1995) stated that in 1842, Allen of the Wesleyan Church petitioned the missionaries' headquarters to assist Ghanaians (then Gold Coast) by including agriculture and farm projects in the school curricula. This became possible in 1880s when a Wesleyan Minister, the Very Reverend Kemp established two day schools at Cape Coast and Accra where subjects like Technical drawing, Mathematics, Elementary Science, Bookkeeping, Metal work, Joinery and many others were taught.

Annoh (1995) further mentioned that in 1951, when the new constitution came into force in the Gold Coast, an accelerated development plan for education was put before Parliament by Dr. Kwame Nkrumah. The proposal included the establishment of four secondary technical schools at Tarkwa, Accra, Takoradi and Kumasi. He went on to state that in 1973, the Dzobo Committee was commissioned to advise the government on educational reforms. This Committee brought about Junior Secondary School (JSS) system which finally came into effect in 1987. Under the JSS system of education, the pupils were introduced to the Technical/Vocational subjects like Technical Skills, Technical Drawing, Catering and Sewing.

The establishment of technical education institutions in the 1970s and subsequently in the 1980s witnessed a concrete attempt to develop human resources in the area of technical and vocation. The study explores the challenges in developing human resource in technical and vocational institutions.

Statement of the Problem

The Technical and Vocational Education in Ghana have suffered for many years and they have since not found their feet. One major issue is the lack of academic progression from Technical Institution to Polytechnic, and from the Polytechnic to the University. The various educational reforms in Ghana have failed to pave way for the Technical Education graduates to enter the Polytechnics and Universities for higher programmes. The inability of graduates from technical institutions to progress to higher levels of education coupled with the perception that those who opt for technical education are ‘block headed’ have dissuaded those interested in technical and vocational programmes from opting for it.

In Ghanaian Technical institutions, subjects like Mathematics, Integrated Science and English Language until 2011, were not examinable in the final examinations. Given that these subjects are core and pre-requisite for admission into higher institutions of learning, this would have implications for the academic progression of graduates from the technical institutions. Graduates of technical institutions also face other challenges. For example, graduates are generally found at the bottom of the organization chart or structure. Further, in the vocational programme, subject like agriculture has no standard textbook for teaching in the technical institution, compared to their secondary schools counterparts which

have prescribed standardized textbooks produced by the Ghana Education Service (GES) for teaching. In addition, technical institutions in Ghana tend to use different textbooks for the teaching of technology even though they are all using common syllabuses and write the same examination resulting in poor performance by most technical school students.

In general, people look down upon technical education (TE), and it is considered as the last resort which means that people normally opt for technical education after they have failed to gain admission to grammar schools. Candidates who normally opt for technical education in Ghana are those with lower grades or poor passes from the Junior Secondary School. It is an uphill task for most technical school students to perform well in their electives - chosen trade (skill training) and the core subjects: English, Mathematics and Science together.

Objectives of the Study

The main objective of this research was to examine the factors that impede the academic progression of graduates from technical institutions to the polytechnics and universities (tertiary).

The specific objectives of the study included the following.

- (i) Examine the existing structure of technical education (TE) in Ghana.
- (ii) Examine the admission requirements in technical institutions (TI) in Ghana.
- (iii) Determine whether core subjects such as Mathematics, Integrated - Science and English Language should be examinable in the final examinations.

- (iv) Explore the extent to which people's attitudes towards Technical and Vocational Education (TVET) in Ghana influence their choice of TVET or general education (GE).
- (v) To make recommendation and suggestions to authorities of Cape Coast Technical Institute and Ghana Education Service on the outcome of the research.

Research Questions

The following questions have been designed to guide the research.

1. What must the technical education curriculum contain to ensure academic progression?
2. What are the attitudes of people towards technical education in Ghana?
3. What is the admission requirement to technical institutions in Ghana?
4. What training needs do technical/vocational education require to accelerate self employment of technical education products?

Scope of the study

The study covered academic progression of graduates from technical institutions in Ghana to tertiary institutions. The scope of the study spanned the period of 2005 and 2007. The study was limited to students, employees of Cape Coast Technical Institute and technical school graduates working in Cape Coast.

Organization of the study

The study was organized into five chapters. Chapter One is the

introduction to the study and looked at the background of technical education in Ghana, why the study was conducted, the objectives of the study, and the scope of the study. Chapter Two embraced the literature review which reviewed a number of literatures and journals to assess the theoretical approach to the study. Chapter Three dealt with the methodology used for the study and the target group. Chapter Four dealt with findings and analyses of data. Chapter Five covered the summary of observations, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The purpose of this chapter is to examine what other researchers and authors have said with regard to human resource development in technical institutions (TI) in Ghana.

Concept of human resource development according to Annoh (1995), Technical and Vocational Education is generally presumed to be practical and technical-oriented. It is primarily geared towards helping individuals to acquire Vocational and Technical skills which enable them to earn a living and also develop creative and manipulative skills needed to generate technical innovations. Vocational and Technical Education is associated with subjects such as fashion, catering, leather work, textiles, basketry, jewelry, painting and decoration, woodwork, building constructions, metal work and many others.

The literature review discusses educational reform in Ghana as well as development of Technical and Vocational Education (TVET) in Ghana. It also examines the existing form of TVET in Ghana, technical and vocational graduates and wage employment. The concept of vocational interest is discussed followed by theories of vocational development, people's attitude towards technical and vocational education, training required to accelerate industrial development, and finally, analysis of the White Paper on the Report on Educational Reform review in Ghana.

Education Reform in Ghana

In 1967, Education Review Committee under the chairmanship of Kwapong was formed to examine the content of education in Ghana. The Committee found it to be ‘bookish’ and white collar job oriented. (Education Review Committee, 1968). The continuation school programme was therefore recommended as a possible smear of providing pupils who did not have the opportunity of entering secondary school with skills and the right attitudes that will make them ready for absorption into various occupational enterprises or gainful employment (Education Review Committee, 1968).

In 1973, the need to reform the educational system once again became necessary because the 1967 reform was silent on technical education. This initiative was taken based on the recognition that any system of education should aim at serving the needs of individual, the society, the personal lives and the country as a whole. On the basis of this recognition, another Committee was formed to examine the educational system.

The Education Advisory Committee (1974) which was under the chairmanship of Dzobo recommended the “New Structure and content of Education for Ghana”. The unique aspect about this reform is the introduction of pre-vocational education in the Junior Secondary Schools (JSS) and the introduction of specialized secondary schools to cover vocational, technical and general education. This Education Reform was implemented in September, 1987. With the reform, the basic education was reduced from 10 years to 9-years and it was made up of 6 years primary and 3-years JSS programme. This is followed by a 3-year Senior Secondary School (SSS) programme and 4 or 3-year tertiary

education. Upon all these changes, technical education at the second cycle level did not benefit the country since no significant changes were made to improve technical education.

As a response to the appeal by the Government for the establishment of more vocational centers by private agencies to equip the youth with employment skills, the Opportunities Industrialization Centre International (OICI) established its first centre in Ghana at Nungua - Accra in 1970. Similar centres were established by the OICI in Kumasi and Takoradi (Opportunities Industrialization Centre International, 1988).

Development of TVET in the Gold Coast

Just like in Rome, Greece and America, Ghana is not different when technical and vocational education is under consideration. Technical and vocational education in Ghana began on an informal level of father-son relationship. In the mid-1600's, a Danish merchant wrote that boys from age eight to nine in the Fante communities would follow their father to learn some trade and be initiated into the customs and traditions. (Mc William & Kwamena-Poh, 1975) The first school was the home with the parents and the elders in the family as teachers. This mode of learning continued until the arrival of the merchants and missionaries of Dutch, Portuguese and English origin who later played a leading role in setting up schools in the Gold Coast (Mc William & Kwamena-Poh, 1975).

The Basel Mission sent out four missionaries to Christiansburg in 1829. The only survivor was Andreas Riis. Riis and his successors stated that education

must not to be confined to only academic work (Mc William & Kwamena-Poh, 1975)

In 1908, Governor Rodger appointed a Committee to investigate into the various matters with education in the Gold Coast. The Committee as part of its recommendations suggested that the colonial government should take a direct interest in technical education. Before that period, it was the Basel Mission that had been providing trade instruction in the Gold Coast. Thus, in 1908, the Accra Government Technical School was established, the first of its kind in the country. When Sir Gordon Guggisberg was made Governor of the Gold Coast in 1919, he set up a new committee called the Educationists Committee in 1920, under the Director of Education, Mr. D.J. Oman to investigate past education efforts in the Gold Coast, their success or failure and then to consider the whole educational policy and make recommendations.

According to McWilliams and Kwamina-poh (1975), the work of the Committee was undoubtedly the most thorough and valuable enquiry made into education during the colonial period. Their report came out with 52 recommendations and 53 suggestions, majority of which were put into effect. It was a result of one of the Committee's recommendations that Achimota School in Accra was established in 1927.

During Governor Guggisberg's time, Technical education at the lowest was greatly expanded by the opening of four Government Trade Schools in 1922 at Yendi, Mampong, Kibi and Asuansi. The Yendi school was later moved to Tamale. Another effort towards the development of Technical Education in Ghana was the Accelerated Development Plan of 1951. The Plan proposed that

there should be a much greater variety than in the past of technical education. In view of this, technical education was made a department on its own, headed by Chief Technical Education Officer and this resulted in the establishment of technical institutions at Ho, Kikam, Koforidua, Kpando, Sunyani and Tamale. These institutions provided various pre-apprenticeship courses consisting of basic workshop training in Woodwork and Metal Work and an intensive study of Mathematics, Technical Drawing and English language. Outstanding students took a course for the certificate of Ordinary Technician Diploma (OTD) in Mechanical, Electrical or Building Engineering and had the chance to be admitted to the University of Science and Technology, now the Kwame Nkrumah University of Science and Technology (KNUST) for further studies towards the award of first degree in engineering.

The Existing Form of Vocational and Technical Education in Ghana (1989 – 2007)

Technical and Vocational Education Training (TVET) gained prominence in the years immediately before and after independence in 1957. Before 1956, four Government Technical Institutes namely Kumasi Technical Institute, Accra Technical Institute, Takoradi Technical Institute (all polytechnic now) and Tarkwa Technical Institute (now University of Mines and Technology) had been established.

In September 1960, the Technical Teachers Training College (now University of Education, Winneba – Kumasi Campus) was established to ensure a

steady supply of trained technical teachers for the Technical and Vocational Education system.

The architects of the education reform programme which started in 1987 realized that if Ghana was to develop technologically and economically, the education should have the function of teaching the population the skills that are required to produce the goods and services needed by the economy.

According to Technical and Vocational Education Division of the Ghana Education Service Report (1999), attempts to “vocalionalise” education, led to the inclusion in the curriculum of Basic and Second Cycle schools subjects such as Woodwork, Block Laying, Technical Drawing, Cookery and many others. Unfortunately, instead of viewing the introduction of these technical and vocational subjects into the school curriculum as being ‘an exposure’ at the Junior Secondary School (JSS) level and “an introductory” at the Senior Secondary School (SSS) level, the innovation was misconceived as being able to make JSS and SSS students acquire technical and vocational knowledge and skills which will enable them to become self-employed.

However, the technical institutes and their programmes were left out to the extent that the Technical and Vocational Education Division itself was dissolved in 1992, and reduced to a unit under the Director-General’s Office. After the dissolution of the Division, funding for TVET under the GES deteriorated, causing the prevailing poor conditions in the technical institutes to worsen further in terms of equipment, infrastructure and others. This contributed to the loss of interest in technical and vocational education. The Division of TVET was however, restored to full Directorate in 1994.

Objectives of TVET in Ghana

Some of the policy objectives of the Ministry of Education for technical and vocational education and training which the Technical Education Division seeks to achieve according to TVET Policy (1999) are:

1. To equip students who have completed basic education with skills that will enable them to enter into gainful employment in industry, commerce or agriculture;
2. To equip students with relevant productive and entrepreneurial skills that will prepare them for self-employment;
3. To promote increased participation of women in education, training and employment in technical field;
4. To provide sound foundation for further education for those students who may wish to continue their education during their working life in the content of lifelong education;
5. To provide trained manpower in science and technology and commerce;
6. To systematically identify and train technical/vocational education trainers;
7. To equip individuals with technical skills for employment; and
8. To provide special programmes targeted at handicapped or disabled persons.

The study sought to confirm the achievement of these laudable objectives or otherwise, and how they had affected human resource development in Ghana.

Technical/Vocational Graduates and Wage Employment

Fluitman (1987), indicated that technical and vocational training in Africa is generally designed to prepare school-leavers for wage-employment in the modern sector. He further stated that people are being trained for jobs which are in exceedingly scarce supply rather than self-employment or self-improvement outside the wage-sector and argued that the school system has completely disregarded the role of preparing the young people to create their own employment in the rural areas or in the informal sector. Fluitman (1987) further states that the youth are led to aspire to white-collar jobs. Most of them do not learn how to produce marketable goods and services or how to do this better than their parents and suggested that training in Africa should gear towards the informal sector.

Goodale (1991) points out that values transmitted in a classroom serve to orient girls' expectations to formal sector, white-collar employment and undermine the value of other "traditional" occupations including trade. Goodale (1991) further points out that the education and training which girls receive is not only inadequate in terms of types of vocational skills they develop, but also in terms of the lack of preparation and appreciation for self-employment as a legitimate occupation.

Similarly, Lee (1985) reports that in many African countries, public sector employment (civil and public servants), has emerged as a major component of wage-employment in the modern sector. He continued to say that between one-fifth and three-quarters of modern sector wage-employment is accounted for by public sector employment. What is clear in Ghana is that most graduates from

technical institutions seek employment opportunities from the public sector whose structure does not cater for graduates from TVET.

There are several factors that people consider when selecting vocation. Egyir (1991) indicated that one factor to consider in selecting a “vocation is the financial reward” (p. 120).

Egyir (1991) also reported that, 240 males and 181 females high school students who were working part time were asked to indicate the most important personal reasons for working. Both the females and the males indicated that money for current expenses, savings accounts and money for future education were the most important reasons for working.

Napiers (1972) observed that people engage in job because of financial prospects involved in the job and the prestige the job occupies in the society. He remarks that individuals engage in jobs not because of the interest they have for such jobs but because of prestige attached to the job or the economic incentives that can be gained from such jobs. However, Hisrich and Peters (1992), stated that one concern people have when considering employment opportunities is the need for independence. They stated that people engage in self-employment because they have difficult time working for someone else.

Examining the effect of education on employment, the research work on “paper qualification syndrome” points out that high education favours employment in the modern sector (The Paper Qualification Syndrome and The unemployment of School Leavers, 1985). The Report indicated that everywhere in Africa, there is a deep dissatisfaction with educational system that seems to be entirely devoted to encouraging students to gear all their efforts to the passing of

examination for the sake of gaining employment in the modern sector (I.L.O, 1981).

Oxenhean (1981) reports that majority of graduates he interviewed during his house-to-house visits in relation to why people prefer to be unemployed indicated that they were waiting indefinitely until they secure job that pays wage or salary rate considered to be commensurable with their qualification. Oxenhean (1981) also observed that in a country where the average salary or wage is three or four times higher than income generated from self-employment, specific preference is given to wage-employment and very little attention is devoted to self-employment. TVET graduates seek employment instead of continuing their education at the tertiary.

In considering why people prefer to go into wage employment, Grierson (1993) argues that economic barriers prevent people to go into self-employment. Economic barriers largely refer to the difficulty in raising sufficient capital to establish oneself in viable self-employment. He pointed out that the potential self-employed worker can raise capital during period of wage-employment. Such employment may be in the formal sector or could be as a journeyman in information sector workshops. Grierson (1993) noted that after a period of five or so years, the individual will have accumulated sufficient capital, contracts and experience to enter into self-employment.

Mead and Kunjuku (1993) also supported the findings of Grierson (1993) by noting that the most successful self-employment artisans are those with significant wage employment experience. It is difficult to raise sufficient capital for self employment by one-self without being in a gainful employment.

Content Framework of Technical and Vocational Education

In defining the content of Technical and Vocational Education, UNESCO (1983) described such education as aspects of the educational process involving in addition to general education, the study of technology and related science and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life' (UNESCO, 1983; cited in Masri (1994).

Masri (1994)) further opined that the specialized component of any vocational preparation programme constitutes two main aspects of knowledge including knowledge by practice and acquaintance, and conceptual knowledge by theory and description. Knowledge by practice alone produces craftsmen with limited horizons unable to effectively develop their competence and respond to changing conditions. Knowledge by description alone, on the other hand, produces theoretical craftsmen who simply have no place in industry. A balanced combination of both theory and practice, through a mixture of "compound approach" optimizes the effectiveness of vocational education; and enhances its status.

Vocational / Technical Education as Continuing Education

Masri (1994), argued that continuing education of technical and vocational within the framework of the more comprehensive concept of life-long education is usually intended to permit the updating and refreshing of knowledge and practical abilities and skills in the occupational field. It is further stated that

continuing education enables the individuals to adapt to technological changes in ones occupation or to enter another occupation if these changes render one's particular job obsolete. As continuing education, technical and vocational education should also have a built-in link with higher educational and occupational levels through the formal or non-formal educational channels. For such a link to be effective, no type or level of technical/vocational education should be considered terminal for the learner. Upward mobility to higher educational and occupational levels should be governed mainly by the individual's abilities and aptitudes, rather than by one's type of schooling as is often the case in many educational systems.

Vocational Schools

Vocational education and training for the preparations of manpower at the basic occupational levels is provided within the framework of the following four main types of programmes as advocated in the Educational Review Report (2004):

1. The vocational secondary school provides skilled workers and craftsmen. Vocational secondary schools admit students who complete the nine year common basic school and provide in three-years a full general secondary education programme up to grade 10 standard, in addition to vocational education in certain specializations as technical school graduate with a trade; plumbing, carpentry, furniture design, building, electrical, catering, fashion designing and architectural draughtsman.

2. The special vocational school admits students who complete the general secondary school, and provides them with vocational preparation for one to two years. In general, such a school is a special version of the vocational secondary school without the general education component which would have already been completed.
3. Urban and Rural Vocational education is being phased out gradually and replaced by vocational secondary schools. It was meant to provide evening courses in general education for working youth to complete their secondary education.
4. On-the-job training just like apprenticeship training where people are employed after eight or ten years of general education without going through a formal vocational education programme. It is used to train people on a specific job to acquire a skill.

The preparation of manpower at the technician, or professional level is provided in 'specialized secondary schools'. These schools admit students who complete the common basic school and provide them with full general secondary education in addition to specialized technician education at the intermediate level. They also admit students who complete the general secondary school, and provide them with the specialized component of technician education at the advance level. Universities and institutes of higher education admit students who complete general secondary education. Institutes of higher education hold entrance examinations to select from among the great number of applicants; but special provision, in the forms of quota, is made to ensure that a reasonable proportion of

vocational school graduates carry on with higher education at the polytechnics and the University of Education, Kumasi Campus..

Regular school attendance is the most important factor in the establishment of a good scholastic record. Work missed through irregular attendance or absenteeism is very difficult to make up. There is no substitute for the actual participation in the daily classroom discussion and other activities. Students also learn best when they attend school regularly.

The school environment and surroundings as well as academic performance in the school can be a justifiable cause for poor school attendance. Some technical schools are old, depressing, inadequately equipped and their geographical location alone put some students and staff off from associating themselves with technical education (TE). In the technical institutions (TI), it has been observed that most of the students absent themselves from practical lessons due to lack of training materials. Sometimes, the students extend these attitudes to other theoretical subjects and that goes a long way to affect their general academic performance.

A World Bank Report (1988) - (Education in Sub-Saharan Africa: Policy for Adjustment Revitalization and Expansion, 1988) stated that in the rural areas in Africa, most of the schools have dilapidated buildings and the school chairs, tables and desks are either broken or missing. They do not have good sanitation facilities. The Report further stressed that poorly maintained facilities affect academic standard and this discourages student's attendance. For those who attend schools, little can be learned and during rainy season, classes have to be

discontinued because of leaky roofs. Some schools have no roofs at all while others attend classes under trees.

Generally, education is merit goods, while teachers are servants of the public who are paid to teach successfully and not just the brightest or motivated children. The relationship between the teacher and the student is very important in school work. No student will like to stay in a school where the teachers are unfair and hostile. When a student feels there is poor relationship between him and his teacher because he is dull, the student begins to absent himself from school. Burt (1969) asserted that at school, a dull student feels a hopeless future; his life may be insecure because of disgrace and punishment. This unfortunate situation may lead to truancy that can affect their academic work. It is important for TVET teachers to have understanding, affection and consideration for the weak student irrespective of his ability, social class and sex. By adopting fairness in his approach to students the teacher will create incentives for students to attend school regularly.

Some teachers in the technical institution over used students by sending them to do jobs at the expense of often theoretical subjects. Without giving them any incentives to motivate them, it is considered as practice.. Due to this, some students intentionally refuse to exhibit their practical's skills while others stop schooling since they feel cheated.

The Concept of Vocational Interest

Bakare (1989)) defined vocational interest as the activities or objects which an individual likes or pays attention to, observes, thinks about or enjoys,

and this is usually without any external reward. Interest is learned or is discovered and then developed through repeated exposure and reinforcement as shown by the desire or enjoyment the individual derives from the exposure.

Shertzer and Stone (1976) also defined interest as concerning an individual's likes, dislikes and indifference towards a person, objects, things and activity. In reality, dedication, efficiency and success in what one does largely depend on the amount of interest one has in that activity. Highlighting on Super's (1960) definition of interest, Shertzer and Linden (1979) pointed out that there are four types of interest. These are expressed interest which is the verbal statement of liking for an object, an activity or a task or an occupation; manifest interest which involves the evidence of participation in an activity, a task or an occupation and which can be observed by others; tested interest is the interest which can be measured by an objective device; and intentioned interest which involves the assignment of an empirically determined weight to every possible response of extended list of activities or occupations.

Shertzer and Linden (1979) asserted that in responding to an interest inventory item, an individual expresses an acceptance or rejection of self-performing of a given stereo-typed occupational role. In other words, if students respond to an interest inventory item, they are identifying themselves with a particular occupational role that suits their personalities.

Shertzer and Linden (1979) maintained that interest inventories have been developed with essentially practical purpose in mind to improve vocational selection and vocational guidance. The interest inventories designed for vocational preferences identify vocational interest and personality characteristics.

Shertzer and Linden (1979) opined that measured vocational interest is the dynamic factor which should be phrase of personality measurement. Osipow (1983) also argued that differential interest reflects the process of personality development.

The use of the interest inventories provides effective vocation guidance since vocational interest inventory identifies vocational interest. This helps vocational counsellors in providing adequate vocational guidance to students in relationship to their vocational interest.

Theories of Vocational Development

There are many theories of vocational development that permit individuals to choose a particular vocation. Vocational interest has an influence on vocational choice. Vocational interest is therefore considered as the expression of one's attitude towards his choice of occupations. Given the link between vocational interest and vocational choice, the review of theories of vocational choice, therefore offers a dependable theoretical basis of the study.

Super's Theory of Vocational Behaviour

Super (1957) defined vocational choice as the implementation of one's self-concept (quoted in Pietrofesa, Minor, Berstein, & Stanford (1980). Super (1960) argued that the way in which the self-concept of an individual is implemented vocationally depends on the conditions external to the individual (quoted in Osipow, 1983). This means that there are environmental factors which

tend to share vocational choice of an individual. Super's Theory of Vocational Behaviour has ten basic tenets. These are:

1. People differ in their abilities, interest and personalities.
2. Because of these differences, each individual is qualified for many occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests and personality traits with tolerance wide enough to allow variety of occupations for each individual and some variety of individuals for each occupation.
4. Vocational preference changes with time and experience. However, self-concept tends to be fairly stable from late adolescent until late maturity (around 65 years) ages.
5. Vocational development could be conveniently summed up in a series of life stages. The growth stage (0 – 14 years) covers the period of the development of self-concept). Exploration State (15 – 24 years) is the period of adolescence and early adulthood. The Establishment Stage (25 - 45 years) is the period an individual makes an effort to settle him-self in the job he has chosen. At this stage, the individual changes positions and not vocation (Osipow, 1983). The maintenance stage (45 – 65 years) covers the period the worker concentrates on retaining his job and the position. His attitudes and behaviour are similar to that of the establishment stage (Osipow, 1983). The declining stage (56 years and above) signifies the declining and lessening of vocational activities

(Osipow, 1983). There is gradual decrease in physical and mental abilities until he eventually goes on retirement . (Pietrofesa, Minor, Berstein, & Stanford, 1980)

6. The nature of career pattern is a product of one's parental socio-economic level and mental ability.
7. The vocational development through the life-stages is guided by maturation of ability, interest, reality testing and self-concept.
8. The process of vocational development is essentially the development and implementation of one's self-concept.
9. The process of compromise between an individual and social factor, between self-concept and reality is the issue of role-playing.
10. Work satisfaction depends upon the extent to which the individual finds adequate outlets for his abilities, interest, personality traits and values. (Pietrofessa, et al., 1980; Bojuwoye, 1989, Nweke, 1989)).

Considering super's theory in relation to the technical institution systems, the most crucial stages are the exploratory and the establishment stages. Most of the students in the technical institutions are at the exploratory stage. At this stage students are mostly adolescent; their vocational decisions assume a more different dimension than at the middle age (Osipow, 1983). Adolescence is a period of exploratory rather than actual preparation or period of acquiring specific vocational skills.

From Super's (1960) theory of vocational behaviour, as explained by Pietrofesa et al (1980), one's self-concept in relation to vocational choice

undergoes changes as one move through the life-stages. It can be concluded that vocational choice at every life stage bears its own peculiar characteristics.

Ginzberg's Theory of Vocational Behaviour

Ginzberg's theory of Vocational Behaviour emphasizes the developmental choice in all the life stages, vocational choice correspondingly changes as the individual moves through the life-stages (Petrofessa, Minor, Berstein & Stanford, 1980). Ginzberg's theory of vocational behaviour provides three period of the process of vocational development and these periods are:

The fantasy period (5 – 11 years) of vocational development is when the child goes through the process of changing from “play orientation” to “work orientation” (Osipow, 1983). At this stage, the child states clear vocational preferences and his play reflects what “function pleasure” and this function pleasure means the delight a child takes in activities for their intrinsic characteristics (Osipow, 1983);

The tentative period (11 – 18 years) is made up of four stages and these are the interest stage, the capacity stage, the value stage and the transition stage. The interest stage (11 – 12 years) is the stage whatever activity the child engages is influenced by the likes and dislike of that activity (Okoye, Adjemo, & Achebo, 1990)). The capacity stage (12 – 14 years) is the stage at which the child introduces the idea of ability into these vocational decisions (Osipow 1983). The value stage is the stage at which the idea of service to the society emerges and the child begins to consider the value which his chosen career has for him. The transition stage (12 or 18 years) is the stage at which the student begins to make

immediate concrete and realistic decisions about his vocational future. Pietrofessa, et al. (1980) noted that this is the stage the student is looking for either work or higher education.

The realistic period (18 – 24 years) consists of three stages and these stages are the exploration stage, the crystallization stage and the specification stage. The exploration stage is the stage the student maintains vocational flexibility (Osipow, 1983). He is now in college environment or Senior Secondary School and he experiences much more freedom in his vocational decisions than before but he still has the problem of vocational indecision. Partly because the interest is still changing and partly because the reality of the situation does not require task at this stage for the student, the selection of a path to follow from among two or three strongly held interests (Osipow, 1983).

The crystallization stage is where the student is more or less deeply involved in a specific major occupation. This is the time the student assesses the very many factors influencing his many occupational choices under consideration. Most students, therefore, reach crystallization stage by the time they leave college. However, not all students reach crystallization stage so early (Osipow, 1983). Some of the students think and act as if they have reached crystallization decisions and this is the stage that Ginzberg's theory of vocational behaviour referred to as pseudo-crystallization stage (Osipow, 1983).

The specification stage is the final stage of career development and this is the stage the student weighs alternatives with research to a field of specialization and to a particular career objective (Nweke, 1989). This is the stage a student elaborates upon his choice and then he selects a specific job (Osipow, 1983).

The implication in Ginzberg's theory is that the implementation of vocational preference occurs as a result of increasing age – that is, realistic vocational choice emerges with age; increasing awareness of hindrance on his path to prepared occupation; and increasing awareness of the need to shift his expectations in adjustment to their reality. (Oladele, 1992)

Trait-and-Factor Theory of Vocational choice (Parsonian Model)

This theory of vocational choice is based on individual differences and it was propounded by Parson (1909) quoted in Nweke, (1989). The theory has three basic assumptions:

- (i) Those human beings can be distinguished from one another on the basis of certain variables and persistent characteristics of a person which could be measured such as interests, intelligence, attitudes, confidence and achievement. These traits are fairly stable and hardly change during post-adolescent period;
- (ii) That these traits can be objectively measured and analyzed to represent the person's potentials which can be related to the requirements of a job;
- (iii) That various occupations require a certain kind of personality profile for success and this personality profile is the Parson's(1909) traits pattern (Nweke, 1989)

Parson (1909) formulated three steps through which an individual goes in choosing an occupation.

- i. He will have to understand himself, his abilities aptitudes, interests and limitations.
- ii. He will have to know the requirements and the conditions of success, advantages, disadvantages, compensations and opportunities in the job.
- iii. He chooses the job that matches him best (Pietrofessa et. al, 1980; Nwamuo, 1991). Therefore, an individual who is naturally artistic will perform jobs and activities that are creative in nature.

Osipow (1983) stated that trait-and-factor theory assumes that a matching of individual's abilities and interests with the world's vocational opportunities can be fulfilled and once fulfilled, it solves the problems of vocational choice for that individual.

Nweke (1989) further maintained that trait-and-factor theory stresses the fact that the vocational choices which are made by individuals or students are an attempt to find a vocational environment which will contribute to the type of person they wish to become. In other words, the theory emphasizes the need to identify the students' personal characteristics as well as job requirements in order to be able to assess accurately the job that matches his personality. Finally, the theory demands accurate and valid information about the individual and job characteristics and these are assessed through objective instruments such as Essuman's Occupational interest profile (1988) .Bokare's Vocation Interest Inventory (1977) and Vocation Preference Inventory (Nwamno, 1991).

Socio-Cultural Theory of Vocational Choice

The theory highlights the social and cultural factors that affect an individual's vocation or occupational choice.

Shertzer and Linden(1979) argues that the theory lays emphasis on how vocational choice is influenced by socio-cultural factors such as individual's cultural background, family aspirations, values, attitudes, social class, sex, religious affiliation, the type of educational institutions attended and the place of birth. Osipow (1983) also noted that as a person matures, culture and perception can influence values. These values turn to influence occupational choice.

Sociologists argued that one's choice of work is influenced by one's sex, family traditions or occupations and social class, and the social forces that surround an individual, while anthropologists claimed that a person's place in the world of work or choice of occupation is a function of interaction with cultural forces (Shertzer & Linden, 1979).

Okoye, Adjemo, and Achebo (1990) also claimed that the process of career and the factors affecting it are essentially culturally determined. Therefore, socio-cultural variables need to be considered in identifying the vocational interest or in deciding on the vocational choices of an individual. These factors may have their relevance to the Ghanaian socio-cultural background.

Career Information

Information about a career is very important in one's life because it enables one to make the right occupational choice. Lack of adequate information in terms of choice of career has been a problem of parents in the developing

countries (Ipaye, 1986). Thus, it can be argued that for one to make meaningful choice of future career, intensification of career information in the basic schools will be required.

Charles (1973) sees career information as a special need for the counsellor to help students about their choice and also to interpret occupations and other opportunities that exist on the job market. It is in line with this assertion that Okoye, Adjemo and Achebo (1990) rightly noted that lack of adequate and relevant information about jobs; their requirements, prospects and innate capabilities and abilities have placed many people in awkward situations with some individuals missing jobs. One's occupation determines his total life; for example, one's standard of living and that of his dependants, his social status and prestige in his community. Therefore, for an individual to lead a meaningful life devoid of frustrations, depression and others, it calls for the need of adequate career information in the school situation since a person's social, intellectual and economic status depends on the person's occupation.

People's Attitude towards Technical and Vocational Education

Since the introduction of Technical and Vocational Education in Ghana, a number of setbacks have been experienced and the paramount of which is the people's attitude and understanding of this system of education. Many Ghanaians have since the introduction of Technical Education, welcomed the system with negative attitude. Historically, technical education has been treated as a second rate discipline, and has been preferred by the under-privileged masses and shunned by the elite (Annoh, 1995). Young men and women prefer to go into

cities and towns in search for non-existing white-collar jobs rather than obtaining technical education. Annoh (1995) stated that:

- i. People see that office work carried more prestige than manual work.
- ii. Most school children saw education with technical bias as something meant for the unfortunate or not clever enough to do academic work.
- iii. People preferred imported articles such as knives and hoes to those produced by local technicians.

The Ministry of Education in 1990 outlined some perceptions towards Technical and Vocational Education in Ghana:

- i. Very often the salary structure gives a lower status to technical jobs;
- ii. Relegation of Technical and Vocational Education to a lower status by educational system;
- iii. As a consequence, negative parental and children attitudes to Technical and Vocational Education; and
- iv. Lack of creativity among institutions.

What was clear was that, the people tend to show negative attitude towards technical education and their products.

Training to accelerate industrial development

Based on the assumption that there was strong linear relationship between

education, economic and industrial development, many countries gave high priority to education in 1960s and early 1970s. UNDP and Ministry of Education (1990) jointly outlined some measures that Ghana as a developing country must adhere to in order to develop. These are: Organization, Course Content/Curriculum of TVET, Training and Work, and Staff Development.

Organization

Ministry of Education, Ministry of Labour and Manpower Development, private enterprise and industries (private proprietors) should organize and run Technical and Vocational Education. In most developed countries, state Technical and Vocational Institutions exist along with private schools, training in Technical and Vocational centers and in industry. Countries like Sweden and the U.S. have developed comprehensive high school. Germany, Switzerland and Austria have a strong apprenticeship system which combines practical training in enterprises and theoretical education in institution and centre. Training in enterprises is the main feature of Japanese system (UNESCO, 1993).

Course Content/Curriculum of TVET

UNESCO (1983) described the Technical and Vocational curriculum as the key to unlocking doors, which are otherwise closed to the student in transition from schooling to the work place. Therefore, curriculum should be dynamic, for technological advancement, responsive to the need of society and industry, provide adequate information for translating plans into practice and be ‘vocationalized’ and liberalized with school curriculum.

Training and Work

Training with work-study should be the general focus of Technical and Vocational Education. Harison (1987) stated that education with work is a form of education that gives students a taste of working in industry, commerce or service contexts with adults, other than teachers allowing them to break out of the school's insulation to discover the outside world. Therefore, technical and vocational education in Ghana should consider the following as improvement for training. It should be broad based to facilitate horizontal and vertical articulation with the educational system, and should be on families of occupation (access to other aspects and areas of education). Further, there must be a total linkage between training institutions and industry with adequate modern machines, tools and equipment and workshop facilities. Finally, there should be inculcation of maintenance culture into the trainees – regular servicing of tools and machinery.

Staff Development

UNDP and Ministry of Education (1990) recommend the following for trainers in the technical and vocational institutions.

- i. Upgrade regularly the staff of training institutions.
- ii. Trainers are to embark on industrial attachment during long vacations in establishment such as Volta Aluminium Company (VALCO), Volta River Authority (VRA), Ghana Ports and Harbors and many others.
- iii. Scholarship awards should be introduced to enable trainers to undergo overseas training to acquire knowledge in current technological development.

In support of staff development, the Technical and Vocational Education Division, of the Ministry of Education in collaboration with the University of Education, Winneba – Kumasi Campus has initiated a 2-year degree programme in Technical and Vocational Education as part of its staff development programme to provide strong management and leadership skills for Technical and Vocational Education instructors.

White paper on Previous Educational Reforms in Ghana

The implementation of Ghana's recent educational reforms which began in 1987 is associated with many problems in the objectives, content, administration and the management of education (White Paper on the Report of the Educational Reform Review Committee, 2001).

Dr. Nkrumah's Accelerated Development Plan of education of 1951 increased the enrolment of both elementary and secondary education. Unfortunately, it lowered the standard of education at both levels and finally created unemployed school leavers (The White Paper on the Report of the Educational Reform Review Committee, 2001). The White Paper went on to state that the Kwapong Review Committee in 1966 addressed the issue of the majority of pupils from elementary schools who could not gain admission to few number of secondary schools and that brought the concept of continuation schools (White Paper on Educational Reform Committee, 2004)

The Dzobo Review Committee of 1974 introduced the concept of comprehensive Junior Secondary Schools to teach academic and practical skills to all pupils. However, failure to equip graduates with employable skills necessitated

a review of education policy in 2002. The 2002 Review Committee chaired by Professor Anamuah-Mensah, came out with a number of recommendations including:

- i. Review the entire educational system in the country to make it more responsive to current challenges.
- ii. Limited provision of further education and skills training facilities for the majority of the JSS and the SSS levels who thereafter exit from the formal education system.
- iii. Unstructured provision of apprenticeship training within the productive private enterprise sector for the majority of school leavers who have to prepare for a life time of work outside the basic school, second cycle, systems of general, vocational, agricultural and technical education.
- iv. Inadequate provision of technical and vocational education at the second cycle level.
- v. Limited opportunities for post-secondary education for the products of technical, vocational and agricultural education and
- vi. Difficulties in the development of the polytechnics within the scope of higher education, and the vexed problem of sustaining financing of the whole tertiary education sector (White paper on Educational Review Committee, 2002)

Review of technical, vocational and agricultural education

During the 2004 Education review, the Anamuah-Mensah committee

recommended that within the second cycle of education, there should be radical changes and the emphasis should be on the quality, quantity and financing of Technical, Agricultural and Vocational education (White Paper on Educational Reform Committee, 2004).

The recommendations made by the committee to the government included:

- i. A national Council for technical and vocational education and training to be established under the Ministry of Education, Youth and Sports to implement a national post-basic Technical and Vocational Education and Training (TVET) system to guide policy makers and to sensitize the public on the government's focus on a new vision for Technical, Agricultural and Vocational Education and training.
- ii. An enhanced financial base and improved physical infrastructure to reflect Government new vision for TVET in the country.
- iii. Government is to encourage private industry, commerce and service to participate fully in the running of programmes in technical and vocational training at the tertiary level. (White Paper on Educational Reform Committee, 2004).

Review of apprenticeship and skills training

The Educational Reform Review Committee (2004) stated that there are large number of the youth who drop out of primary and JSS. These drop outs are

left on their own to determine their fortunes in the world of work. In view of this, the government agreed to assume full responsibility for the first year of the apprenticeship programme. Based on the recommendation by the Anamoah-Mensah Committee, the government accepted to:

- i. Constitute a National Apprentice Training Board, among other things to oversee and regulate apprentice training and handle issue concerning registration, content, duration and certificate;
- ii. Formalize community-based apprentice training schemes in all districts to cater for the youth
- iii. Support institutions such as the Regional Technology Transfer Centres (RTTCs) and Ghana Regional Appropriate Technology Industrial Service (GRATIS), Opportunity Industrialization Centers (OIC), Youth Leadership Institutes, the private sector and other organizations including NGO's to increase capacity and expand their coverage and enrolment of apprentices.
- iv. Ensure that financial support to second-cycle institutions should now be matched by commitments to industry-based apprenticeship and training.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter discusses the research methodology of the study. It covers the study area, the research design, the study population. The sampling procedure, data collection procedure and how the data collected were analyzed and discussed in this chapter.

The study organization

The study organization was Cape Coast Technical Institute (CCTI) and it is the only Technical Institution in the Cape Coast Municipality. It is located at Pedu, a suburb of Cape Coast. CCTI had 12 departments offering different trade/vocational areas: Furniture, Carpentry and Joinery, Mechanical Engineering Craft, Motor Vehicle (automobile) Mechanics, Refrigeration and Air Conditioning, Plumbing, Block Laying and Concreting, Painting and Decoration, Electrical Installation, Catering, Fashion, and Draughtmanship. In addition to the vocational subject departments, the institution also has four auxiliary/core subjects departments namely English Language, mathematics, science and Information Communication Technology (ICT). Besides, CCTI offered more programmes in different trade areas than most of the technical institutions in

Ghana. The research involved all the departmental heads as well as the teachers of CCTI.

Research Design

The study design was descriptive. The views and perceptions of respondents made up of students, teachers, Head of Departments (HODs) and graduates of CCTI were solicited through questionnaire for their descriptive observations. Gray (1976), states that research design provides the procedural outline for the conduct of any investigation. It indicated that descriptive sample survey is an attempt to collect data from members of a population in order to determine current status of the population with respect to one or more variables. It was further stated that the descriptive method is used for investigating a variety of educational problems, including the assessment of attitudes, opinions and demographic information. Gray (1976) further noted that descriptive data are usually collected through questionnaire, interviews and or observation.

The descriptive survey was chosen because it has the advantage of producing good amount of responses from a wide range of people. In addition, it provides a meaningful picture of events and seeks to explain perception and behaviour on the basis of data at a point in time. Also, the descriptive survey can be used with greater confidence with regard to particular questions of special interest or value to the researcher. Again, in-depth follow up questions can be asked and items that are unclear can be explained using descriptive design (Berge, 1989).

On the other hand, in using the descriptive survey design, there is a difficulty in ensuring that the items designed are clear and not misleading. This is

because survey results can vary significantly depending on the exact working of the items. It may also produce unreliable result because items that delve into people's private matters may be responded in such a way that certain facts are not disclosed to the public. Also the questionnaire requires subjects who can articulate their thoughts well and sometimes even put such thoughts into writing. (Crawford & Christensen, 1995). The descriptive survey was considered the most appropriate design for undertaking the study.

Study Population

The study population was made up of 1,450 from CCTI. It consisted of 1,279 students, 77 subject teachers, 12 Heads of Departments (HODs), five Senior Administrative staff including the Principal of CCTI and 3 core subject teachers and 74 past students (Alumni) of CCTI. Table 1 provides the distribution of the study population by the category.

Table 1 - Distribution of the study population by category

Category	Number	Percentage
Students	1279	88.2
Teachers	77	5.3
HODs	12	0.8
Administrators & core-subject teachers	8	0.6
Past Students (Alumni)	74	5.1
Total	1450	100.0

Source: Field Data, 2007

Sampling Procedures

The study employed both probability and non-probability sampling procedures. The probability sampling procedures were stratified and simple random sampling, while the non-probability procedures used were quota, snowball and purposive sampling.

A sample size of 290 (20%) was chosen from the population of 1450 as recommended by Kirk (1995) who argues that, for a population around 1,500, twenty percent should be sampled.

Table 2 displays the sampling distribution of respondents where key informants were purposively targeted. All the 12 Head of Departments were selected. The three core-subject teachers (Mathematics, English Language and Science) and the two Vice Principals and the Principal of CCTI were also selected for the purpose. Two hundred and sixty students were selected by the quotas assigned to their vocational departments; and 10 past students (alumni) working in the Cape Coast community, selected from the stratum by snowball sampling method.

Table 2 - Sampling distribution of the respondents

Category	Number	Percentage
Students	260	89.7
HOD's	12	4.1
Core teachers	8	2.8
Past Students	10	3.4
Total	290	100.0

Source: Field Data, 2007

The stratified random sampling method was used in selecting 260 students for the study. This was because the stratified sampling enabled the researcher to control the relative size of each stratum, rather than letting the random process control it (Neuman, 2003). This guaranteed representativeness of the samples. Lists of students in each department were collected from the administration and each student was given a number while Heads of Departments were purposively selected from the teachers' list. The total number of students in each department constituted the sampling frame for the stratum. Table 3 shows the students population by departments and the sample size chosen from each department. Past students were selected by snowball sampling method.

Table 3 - Student Population by Department and Sample size

Department	Population	Sample size	%
Furniture	33	7	2.7
Carpentry	65	13	5.0
Mechanical Engineering Craft	104	21	8.1
Motor Vehicle Mechanics	204	41	15.8
Refrigeration & Air conditioning	47	10	3.8
Plumbing	77	16	6.2
Block laying & Concreting	206	41	15.8
Painting & Decorating	47	10	3.8
Electrical Installation Work	228	46	17.7
Catering	102	21	8.1
Fashion	44	9	3.5
Draftsmanship	122	25	9.6
Total	1279	260	100.0

Source: Field Data, 2007

Sources of Data

Data were gathered from both primary and secondary sources. The secondary sources included existing studies, journals and published reports and unpublished reports from CCTI. The primary data were sourced through questionnaires administered to respondents from CCTI and interviews from key personnel/administrators

Data Collection Methods

The study used administration of questionnaire and key informant interviewing data collection methods. Interview on one on one encounter, was to allay the fears as well as pick up information not otherwise offered through the impersonal questionnaire that might be pertinent to the study.

Data Collection Instruments

The questionnaires were the main instruments used in collecting data from the respondents as all the respondents were literates. There were questionnaires for students; graduates of technical education; Head of Departments; and Administrators and the Principal of CCTI. The questions covered the background information of respondents, sought information about the existing structure of technical education in Ghana, to determine whether core subjects should be examinable in the final examination, explore the extend of people's attitude towards technical and vocational education in Ghana, influence choice of technical education (TE) or general education (GE); and an objective that proposes recommendation in the study, Interviews were also arranged for administrators/key personnel of CCTI on issues including, admission requirements into technical schools.

Pretest

The questionnaires were carefully developed and pre-tested to increase content validity and also ambiguous and misleading items revised. The questionnaires were pretested in Asuansi Technical Institute with ten respondents made up of five students, three Head of Departments and core teachers, and two

past graduates (alumni), representing fifty percent, thirty percent, and twenty percent respectively. The pretest results led to the review of the questionnaire. It was restructured for the study objectives.

Fieldwork

The researcher personally administered the questionnaires to the respondents at all the departments from 12th January, 2007 to 26th January, 2007 to be collected in February, 2007. The researcher, an alumni and a teacher of CCTI had to contact the HOD's for their assistance before all the answered questionnaires were collected in March, 2007.

Data Processing and Analysis

The data collected from the field were screened, summarized and analyzed. The Statistical Product and Service Solutions (SPSS) version 16 software was used for the analysis. The results were presented in frequency tables and percentages.

CHAPTER FOUR

RESULT AND DISCUSSIONS

Introduction

This chapter presents and discusses the findings of the research. It covers the background characteristics of the respondents; examining the existing structure of technical education in Ghana; examining the admission requirements in technical institutions in Ghana; to determine whether core subjects should be examinable in the final examinations; explore the extend of people's attitude towards technical and vocational education in Ghana, influence choice of TE or general education (GE); and an objective that proposes recommendation in the study.

Background Characteristics of the Respondents

There were four categories of respondents, all members and associates of CCTI, consisted of 260 students, 20 Head of Departments (HODs) and teachers, and 10 past students (TI Graduates} who were working in the Cape Coast Municipality (89.7%, 6.9%, and 3.4% respectively). Out of the 260 students sampled for the study, 50 representing 19.2 percent were girls.

Curriculum and structure of Technical Education in Ghana

The existing structure of TE in Ghana combines theory (knowledge) and practice (vocational skills training) in technical institutions. In formal educational

institutions, it is often expected that what students learned at lower grades or levels of education would be developed on to higher grades or educational levels. Therefore, the curriculum of a lower level of an educational institution must be relevant to the similar institution of higher level. In order to explore the relevance of the TE curriculum to the progression of its graduates to higher institutions of learning such as the universities and polytechnics, respondents were made to respond to some questions on how they perceived the relevance of TE curriculum.

Masri (1994) opined that the specialized component of any vocational preparation programme constitute two main aspects of knowledge including knowledge by practice and acquaintance, and conceptual knowledge by theory and description. Knowledge by practice alone produces craftsmen with limited horizons unable to effectively develop their competence and respond to changing conditions. Knowledge by description alone, on the hand, produces theoretical craftsmen who simply have no place in industry. A balanced combination of both theory and practice, through a mixture of 'compound approach' optimizes the effectiveness of vocational education; and enhances its status.

In Table 4, majority (65%) of HODs, teachers and administrators respondents agreed that curriculum of TE must be revised to enable TE graduates to be at par with counterparts in terms of academic progression and job placement, Thirty percent strongly agreed, with 5.0 percent disagreeing with the suggestion.

Table 4 – Perceptions of HODs and Teachers on curriculum of the TE

Views of respondents	Number	Percentage
Strongly Agree	6	30.0
Agree	13	65.0
Disagree	1	5.0
Total	20	100.0

Source: Field Data 2007

Ninety percent of TI graduates respondents were of the view that their certificates offered them opportunity to further their studies whilst 10 percent thought otherwise. Majority (70.0%) of TI graduate respondents believed that their employers recognized their TI certificates with 30.0 percent thinking otherwise.

Fifty percent of TI graduate respondents were of the view that their employers did their job placement based on the value of their certificate, whilst 50 percent also thought otherwise. The respondents were equally divided.

Table 5 indicates that 60 percent of respondents (HODs, Teachers & Administrators) disagreed that TE syllabus gave room for more practical training than theoretical aspect of training, whilst 35 percent agreed with the suggestion and five percent undecided or not sure.

Table 5 – Perceptions of HODs and Teachers on TE syllabus making room for more practical training than theoretical aspect

Views of respondents	Number	Percentage
Strongly Agree	2	10.0
Agree	5	25.0
Not Sure	1	5.0
Disagree	9	45.0
Strongly Disagree	3	15.0
Total	20	100.0

Source: Field Data, 2007

Table 6 indicates that 50 percent of respondents – HODs, teachers and administrators agreed with the suggestion that TE syllabus is in line with current technological advancement. Forty-five percent disagree with the suggestion whilst 5 percent were not sure. The views were almost equally divided.

Table 6 – Perceptions of HODs and Teachers on TE syllabus in line with the current technological advancement

Views of respondents	Number	Percentage
Strongly Agree	2	10.0
Agree	8	40.0
Not Sure	1	5.0
Disagree	7	35.0
Strongly Disagree	2	10.0
Total	20	100.0

Source: Field Data, 2007

Views were equally divided with 50 percent of respondents – TI Graduates of the view that course content had bearing on their present occupation.

Concept of human resource development according to Annoh (1995), Technical and Vocational Education is generally presumed to be practical and technical-oriented and is primarily geared towards helping individuals to acquire vocational and technical skills which enable them to earn a living and also develop creative and manipulative skills needed to generate technical innovations.

Eighty-five percent of respondents (HODs and teachers) were of the view that existing TE structure had not led to technological advancement for the past years whilst 25 percent thought otherwise (Table 7).

Table 7 – HODs and Teachers perceptions on existing TE structure leading to technological advancement for the past years

Views of Respondents	Number	Percentage
Agree	3	15.0
Disagree	12	60.0
Strongly Disagree	5	25.0
Total	20	100.0

Source: Field Data, 2007

In defining the content of Technical and Vocational Education, UNESCO (1983) described such education as aspects of the educational process involving in addition to general education, the study of technology and related science and the

acquisition of practical skills, attitudes, understanding, and knowledge relating to occupations in various sectors of economic and social life' (UNESCO, 1983; cited in Masri 1994).

With regards to the issue of attractiveness of technical education to students, respondents were equally divided in their responses in Table 8 to the question whether or not the current curriculum attracted more candidates to opt for technical education.

Table 8 – Perceptions of HODs and Teachers on the attractiveness of TE current curriculum

Views of Respondents	Number	Percentage
Strongly Agree	2	10.0
Agree	8	40.0
Not Sure	2	10.0
Disagree	5	25.0
Strongly Disagree	3	15.0
Total	20	100.0

Source: Field Data, 2007

Social and cultural factors affect an individual's vocation or occupational choice (Shertzer & Linden, 1979). Sociologists argued that one's choice of work influenced by one's sex, family traditions or occupations and social class, and the social forces that surround an individual, while anthropologists claimed that a person's place in the world of work or choice of occupation is a function of interaction with cultural forces (Shertzer & Linden, 1979). These factors may

have their relevance to the Ghanaian socio-cultural background, especially when choice of education by parents for their wards is mostly not influenced by the interest of the child.

A total of 90 percent of respondents were of the opinion that the existing TE structure does not attract more candidates to opt for TE whilst 10 percent thought otherwise in Table 9

Table 9 – HODs and Teachers perceptions on existing TE structure attracting candidates

Views of Respondents	Number	Percentage
Strongly Agree	1	5.0
Agree	1	5.0
Disagree	9	45.0
Strongly Disagree	9	45.0
Total	20	100.0

Source: Field Data, 2007

Seventy percent of TI graduate respondents were of the view that acquired skills at school was not enough to make TI graduates self employed with 30 percent thought otherwise. Fifty percent of respondents – HODs and Teachers were of the view that the existing TE structure prepared graduates for self-employment in Table 10. Respondents were equally divided on the issue.

Table 10 – HODs and Teachers perceptions on preparing graduates for self-employment

Views of Respondents	Number	Percentage
Strongly Agree	1	5
Agree	9	45
Not Sure	1	5
Disagree	6	30
Strongly Disagree	3	15
Total	20	100

Source: Field Data, 2007

Views of TI graduates respondents were equally divided on training skills received are enough to manage own workshop/enterprise with 50 percent agreeing to the suggestion. In Table 11, sixty-five percent of respondents – HODs and Teachers were of the opinion that skills acquired at school were not enough to make graduates self employed whilst thirty-five percent thought otherwise.

Table 11 - Perceptions of HODs on training and skills acquired in the Technical Institutes are enough for students to become self-employed

Views of respondents	Number	Percentage
Strongly Agreed	3	15.0
Agreed	4	20.0
Disagree	11	55.0
Strongly Disagree	2	10.0
Total	20	100.0

Source: Field Data, 2007

Majority (75%) of respondents – HODs and Teachers perceived that industrial attachment improved skills of students to make them self-employed whilst 25 percent perceived otherwise.

Training with work-study should be the general focus of technical and vocational education. Harison (1987) stated that education with work is a form of education that gives students a taste of working in industry, commerce or service contexts with adults, other than teachers allowing them to break out of the school’s insulation to discover the outside world. Therefore, technical and vocational education in Ghana should consider the following as improvement for training. It should be broad base to facilitate horizontal and vertical articulation with the education system, and should be on families of occupation (access to other aspects and areas of education). Further, there must be a total linkage between training institutions and industry with adequate modern machines, tools and equipment and workshop facilities; and finally, there should be inculcation of maintenance culture into the trainees.

Eighty percent of respondents perceived that lack of financial support to acquire basic tools and equipment discourages TI graduates to become self-employed, 15 percent disagreed with 5 percent were undecided. Oxenhean (1981) observed that in a country where the average salary or wage is 3 or 4 times higher than income generated from self-employment, specific preference is given to wage-employment and very little attention is devoted to self-employment.

In considering why people prefer to go into wage employment, Grierson (1993) argues that economic barriers prevent people to go into self-employment. Economic barriers largely refer to the difficulty in raising sufficient capital to establish oneself in viable self-employment. He pointed out that the potential self-employed worker can raise capital during period of wage-employment. Such employment may be in the formal sector or could be as a journeyman in information sector workshops. Grierson (1993) noted that after a period of five or so years, the individual will have accumulated sufficient capital, contracts and experience to enter into self-employment.

Mead et al (1993) also supported the findings of Grierson (1993) by noting that the most successful self-employment artisans are those with significant wage employment experience. It is difficult to raise sufficient capital for self employment by one-self without being in a gainful employment. Eighty percent of respondents disagreed that the existing TE structure was the best whilst 20 percent agreed that it was the best. Seventy percent of respondents strongly disagreed with the suggestion that TE structure paved way for TE graduates to progress academically without difficulties with 15 percent disagreeing and 15 percent agreeing with the suggestion.

The admission requirements

The researcher in an interview with key personnel sought information about admission requirements needed by JHS pupils to enter technical school, and what technical school graduates needed to enter into the tertiary, either the polytechnics or the universities.

Admission requirements into Technical Institutions

It was revealed that the admission requirements into technical institution were based on BECE results for JHS pupils as directed by the Ghana Education Service from time to time. It was confirmed in an unstructured interview with the Vice Principal – Academic of CCTI that it was GES which gave out the aggregate to obtain before admission into all second-cycle institutions, with the technical institutions inclusive.

Admission requirements into the tertiary

The study also revealed that the Technical School Certificate awarded, which is intermediate was not a requirement into any of the tertiary institutions. A TI graduate with intermediate certificate must take a one year course for an advance certificate before gaining admission to a polytechnic for a three year programme for a Higher National Diploma (HND), before seeking admission into the university for a two year top-up first degree course. On the other hand, some students write WASSE core-subjects after intermediate certificate and use it for admission into the tertiary.

Core-subjects

What students learnt in TE institutions and how it was learnt could inform their perceptions on technical education. As a result, to understand how students perceived the relevance of what they learnt in school to their progression to higher levels of education, the survey sought the perception of student respondents for their views on core-subjects in addition to their elective/vocational subjects.

It was the view of almost every student that to pursue higher level of learning and in Ghana, English was the language of teaching and instruction, and TE requires Mathematics and Science. For TE student to be able to compete with GE student for admission into the tertiary institution the TE student must be able to pass the core-subjects with ease and it would influence the attitude of more students to opt for TE. Student respondents views on studying the core-subjects – English, Mathematics and Science, Table 12 portrays that a total of 99.2 percent perceived that studying the core-subjects enhanced students' chances to pursue higher education.

Table 12 – Core- subjects enhance students' chances to pursue higher education

Views of respondents	Number	Percentage
Strongly Agree	238	91.5
Agree	20	7.7
Disagree	2	0.8
Total	260	100.0

Source: Field Data, 2007

Majority (90.4%) of student respondents strongly agreed to the suggestion that the study of core-subjects would broaden students' general knowledge, 9.2 percent agreed whilst 0.4 percent disagreed (Table 13).

Table 13 – Students' response on studying of core-subjects broadens students' general knowledge

Views of respondents	Number	Percentage
Strongly Agree	235	90.4
Agree	24	9.2
Strongly Disagree	1	0.4
Total	260	100.0

Source: Field Data, 2007

English is the language being used in teaching and instructing in TI. There is calculation in every vocation taught in TI. There is element of science in every vocation taught in TI from wood treatment and preservation in carpentry and furniture to applied physics in electrical engineering trade. The three core-subjects, English, Mathematics and Science are very important in technical education.

Eighty percent student respondents strongly agreed to the suggestion that the three core-subjects improved their performance in technical institutions and 20 percent agreed to it. All the student respondents agreed to the suggestion.

There was no student respondent dissent on the idea that core-subjects must be compulsory and examinable in the final examination in TE just like their counterparts in general education at Senior High School (SHS). Majority (93.1%)

of student respondents attended core-subjects classes willingly and showed maximum interest with 6.9 percent disagreeing. Majority (85.2%) of student respondents were of the view that core-subject teachers attended classes regularly as the craft teachers whilst 14.8 percent disagreed.

Majority (65.1%) of student respondents disagreed with the suggestion that they did not take lessons in the core-subjects seriously because core-subjects were not examinable in the final examination, 26.1 percent agreed whilst 8.8 percent were not sure of what to say. Majority (75.6%) of student respondents disagreed that some teachers in TI told students to focus more on the craft subjects than the core subjects, 14.8 percent agreed with the suggestion whilst 9.6 percent were not sure.

Peoples' attitude towards TE

The Basel Missionaries led by Andreas Riis after their study of our educational system in 1829, stated that education in the then Gold Coast must change; it should not be confined to only academic work (Mc William & Kwamena-Poh, 1975). A change in attitude is needed towards practical skills training in addition to academic work.

Majority (80%) of respondents – HODs and Teachers agreed to the suggestion that, students' attitude to learn practical skills is to prepare them for self-employment whilst 20 percent disagreed with the issue. In Table 14

Table 14 – Perception of HODs and Teachers on Students’ attitude to learn practical skills

Views of respondents	Number	Percentage
Strongly Agree	5	25.0
Agree	11	55.0
Disagree	4	20.0
Total	20	100.0

Source: Field Data, 2007

Many Ghanaians have since the introduction of technical education, welcomed the system with negative attitude. Historically, technical education has been treated as a second rate discipline, and has been preferred by the under-privileged masses and shunned by the elite (Graham, 1992 quoted in Annoh, 1995). Young men and women prefer to go into cities and towns in search for non-existing white-collar jobs rather than obtaining technical education (Annoh, 1995) perfectly agreed with Graham (1992) when he stated that:

- i. “People see that office work carried more prestige than manual work.
- ii. Most school children saw education with technical bias as something meant for the unfortunate or not clever enough to do academic work.
- iii. People preferred imported articles such as knives and hoes to those produced by local technicians”.

All the TI graduate respondents were willing to contribute to develop technical education in Ghana.

The Ministry of Education (UNDP and Ministry of Education , 1990) outlined some perceptions towards Technical and Vocational Education in Ghana as follows: Very often the salary structure gives a lower status to technical jobs; relegation of Technical and Vocational Education to a lower status by educational system; as a consequence, negative parental and children attitudes to Technical and Vocational Education; and lack of creativity among institutions. It is clear from the literature that, people tend to show negative attitude towards technical education and their products. It is only the TE products – TI Graduates who can lead the crusade to develop TE in Ghana to dispel the negative notion people harbored for technical education.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary of the study, conclusions drawn from the study and recommendations for improvement of technical education in Ghana at the second-cycle level.

Summary

The main objective of this research was to examine the factors that impeded the academic progression of graduates from technical institutions to the tertiary –polytechnics and universities. The study used descriptive survey design with Cape Coast Technical Institute as a case study. Probability (stratified and simple random) and non-probability, (snowball and purposive) sampling procedures were employed for the selection of the sample. A sample size of 290 respondents was selected for the survey. The questionnaire was the main instruments used in collecting data from respondents. Data collected from the field were screened, summarized and analyzed. The Statistical Product and Service Solutions (SPSS) Version 16 software was used for the analysis. The results were presented in frequency tables and percentages.

Main findings of the study:

Majority (90%) of respondents were of the view that curriculum of technical education (TE) must be revised in terms of academic progression.

.Seventy percent of respondents were of the view that TE syllabus did not give room for more practical training than theoretical aspect of training.

Majority (85%) of respondents were of the view that existing TE structure had not led to technological advancement for the past years.

Admission into both technical institution (TI) for technical education and Senior High School (SHS) for General Education was based on Basic Education Certificate Examination (BECE) results, but their final technical school examination certificates were considered different and not equivalent for admission into the tertiary. SHS certificate was an entry requirement to the tertiary. The TI Intermediate certificate needed additional qualification such as SHS core-subjects or Technical Examination Unit's Advance certificate after another one year course before admission into the polytechnic.

Majority (98.2%) of respondents perceived that studying the core-subjects enhanced students' chances to pursue higher education.

Majority (90%) of student respondents strongly agreed to the suggestion that the study of core-subjects had improved their performance and would broaden students' general knowledge.

All the student respondents strongly agreed that core-subjects must be compulsory and examinable in the final examination of technical education just like their counterparts in SHS in general education.

Majority (65.1%) of student respondents opined that despite that core-subjects were not examinable in the final examination; they took lessons in core-subjects serious.

Majority (90%) of HODs respondents were of the view that the existing TE structure did not attract more candidates to opt for TE.

Seventy-one percent of TI graduate respondents were of the view that acquired skills at school were not enough to make graduates self-employed.

Majority (75%) of respondents of HODs perceived that industrial attachment improved skills of students to make them self-employed.

Majority (80%) of respondents perceived that lack of financial support to acquire basic tools and equipment discourages TI graduates to become self-employed. Eighty percent of respondents disagreed that the existing TE structure was the best. All the TI graduate respondents were willing to contribute to develop technical education in Ghana.

Conclusions

The results of the survey had led to the following conclusions with regard to the problems and challenges of human resource development in technical institutions in Ghana, case study of Cape Coast Technical Institute:-

1. Technical Education curriculum must be revised to facilitate academic progression of students who wish to continue their education after the second cycle to the tertiary without hindrance like the SHS student.

2. . The TI final year certificate after 3 years technical education is not a direct entry requirement to any tertiary, unlike the SHS certificate which is a direct entry requirement into any tertiary in Ghana.
3. Majority of technical institute students considered that the studying of the core-subjects – English, Mathematics and Science wouldl enhance their chances to pursue higher education in future.
4. All the TI students wanted core-subjects to be compulsory and examinable in the final examination like the SHS.
5. Technical education structure was not the best and had not led to a technological advancement for the past years; neither did it pave way for TI graduates to progress academically without difficulty.
6. TI graduates were not put on appropriate level of job placement in industry.
7. Majority of TI graduates had witnessed improved skills of after industrial attachment that made them self-employed.
8. Lack of financial support to acquire basic tools and equipment had discouraged TI graduates to become self-employed.
9. All the TI graduates were willing to contribute to develop technical education in Ghana.

Recommendations

In order to solve the challenges of academic progression of graduates from technical institutions in Ghana to the tertiary institutions, the Cape Coast

Technical Institute, the Ghana Education Service and the Ministry of Education need to consider the following suggestions:

1. The existing structure, curriculum and syllabus of technical institution must be revised to reflect technological advancement, and in line with second-cycle curriculum with the elective-subjects (trade) and the core-subjects – English, Mathematics and Science.
2. The core-subjects must be compulsory and examinable in the final examination and reflect as it is done for Senior High School.
3. The final year certificate of technical institutions must be equated as equivalent to the SHS certificate and a direct entry requirement to the tertiary.
4. The principals of technical institutions, the Ghana Education Service and the Ministry of Education should liaise with other ministries and institutions to help the TI graduates who want to be self-employed to receive financial support to acquire basic tools and equipment to start their own enterprise in their chosen vocation, as it is done for some youth employment groups under the National Youth Employment Programme in Ghana. The TI failed graduate had acquired employable skills in the chosen vocation and when assisted with employment, will be productive to the community and when matured can further his education on his own through adult learning.

REFERENCES

- Annoh, K. (1995). *Education*. Kumasi: Freeman Press.
- Bakare, C. (1989). The use of personality Test and interest in inventories in making: Transition Diversions at the end of thr Junior Secondary School period. *Reading Guidance and Counseling , IV*, p. 46.
- Berge, B. (1989). *Qualitative research methods for the social sciences*. London: Allyn and Bacon.
- Bojuwoye, O. (1989). *Vocational guidance in educational and vocational guidance: Concept and approaches*. Ibadan: University of Ife.
- Burt, C. (1969). *The backward child*. London: Univrsity of London Press.
- Charles, E. (1973). *Principles and techniques of vocational guidance*. London: Columbus.
- Crawford, J., & Christensen, I. B. (1995). *Developing research skills: A laboratory manual*. Boston: Allyn and Bacon.
- Education Advisory Committee. (1974). *Education advisory committee Report*. Accra: Ghana Ministry of Education.
- Education Review Committee. (1968). *Education review*. Accra: Ghana, Ministry of Education.
- Egyir, K. (1991). Attitudes of training in Ole. toward public employment. *Unpublished Thesis* . Cape Coast: University of Cape Coast.
- Fluitman, F. (1987). "Training for work in the informal sector": An agenda item for the 1990s. *Discussion paper No. 16 on Vocational Training*. Accra: Ministry of Education.
- Goodale, G. (1991). *Training for women in the Informal Sector*. Geneva: I.L.O.

- Gray, C. (1976). *A Study of the working-class in post war era*. London: Longman Green and Co Ltd.
- Grierson, J. (1993). Self Employment in the Developing Countries, Analysis and the Effectiveness of Approach. *Development and strategies of SEMES*. Mikkeli.
- Harison, P. (1987). *Curriculum design and development*. London: Macmillan Publishers.
- Hisrich, R. D., & Peters, M. P. (1992). *Entrepreneururship: Starting, developing, and managing a new enerprise* (2nd Edition ed.). Homewood: BPI/Irwin.
- I.L.O. (1981). Jobs and skills progrmme for Africa. *I.L.O Information Bulletin* (5).
- I.L.O. Report . (1985). *The Paper Qualification Syndrome and The unemployment of School Leavers*. Addis Ababa: International Labour Organization.
- Ipaye, T. (1986). *Educational and vocational guidance concepts and approaches*. Ibadan: Bezekos Printing Press.
- Kirk, R. (1995). *Experimental design*. London: Pacific Grove/Brooks Co.
- Lee, E. (1985). Public sector employment in Africa. *The Courier(AC-EC)* (110), 56-57.
- Masri, M. (1994). *Vocational education: The way ahead*. London: Macmillan Press Ltd.
- Mc William, H., & Kwamena-Poh, M. A. (1975). *The development of education in Ghana*. London: Longman Group Limited.

- Mead, D., & Kunjuku, P. K. (1993). *Business linkages and enterprise development in Zimbabwe*. Harare.
- Napiers, W. (1972). *School guidance service: Focus on developing countries*. London: Macmillan Press Ltd.
- Neuman, W. (2003). *Social research methods - Qualitative and Quantitative approaches*. Boston: ASllyn and Bacon.
- Nwamno, P. A. (1991). *Theories of vocational development and adjustment in guidance and counseling: A realistic approach*. Lagos: Interntional University Press.
- Nweke, C. (1989). *Theories of Vocational development in guidance and counseling: Principles and practice*. Calabar: Palso Ltd.
- Okoye, N., Adjemo, D., & Achebo, c. (1990). *Fundamentals of guidance and counseling*. Ibadan: Olusey Press Ltd.
- Oladele, J. (1992). *Guidance and counseling: A functional approach*. Yabar: Jolms-Lad Publishers Ltd.
- Opportunities Industrialization Centre International. (1988). *OICI annual report*. Accra: OICI.
- Osipow, H. (1983). *Theories of career development* (3rd Edition ed.). N.J.: Prentice Hall.
- Oxenhean, J. (1981). *Education verses qualification*. London: Allen and Urwim.
- Pietrofesa, J., Minor, ., j., Berstein, B., & Stanford, S. (1980). *Guidance: An introductiuon*. Chicago: Rand Menally Publishing Co.
- Sherteer, B., & Stone, ., S. (1976). *Fundamentals of guidance*. Boston: Houghton Mifflin Co.

- Shertzer, B., & Linden, J. D. (1979). *Fundamental of individual appraisal assesment techniques for counselors*. Boston: Houghton Mifflin co.
- Super, D.E. (1957). *The Psychology of Career*, New York: Harper
- Super, D.E (1960) *The Vocational Maturity of Ninth Grade*, New York: Bureau of Publications, Teachers' College, Columbia University
- UNDP and Ministry of Education . (1990). UNDP and Ministry of Education Report on Trainers for Technical and Vocational Institutions. Accra: Ministry of Education.
- UNESCO. (1983). Paris: UNESCO - UNEVOC.
- UNESCO. (1993). Training in Enterprise. Tokyo: UNESCO - UNEVOC.
- White paper on Educational Review (2001) White paper on the report of the educational reform review committee. Accra: Ministry of Education.
- White paper on Educational Review (2002) White paper on the report of the educational review committee, Accra: Ministry of Education
- White paper on Educational Reform Committee. (2004). *Educational Reform Review*. Accra: Ministry of Education.
- World Bank Report (1988). *Education in Sub-Saharan Africa: Policy for adjustment revitalization and expansion*. Washington: World Bank.

APPENDIX I

QUESTIONNAIRE FOR STUDENTS OF CAPE COAST TECHNICAL INSTITUTE

INTRODUCTION

This questionnaire is being used for a study by a student at Institute for Development studies, University of Cape Coast to find out the academic progression of graduates from technical institutions in Ghana to tertiary institutions. It is meant solely for academic purposes, so you are assured of confidentiality. Many thanks in anticipation.

PART 1

Background Information

Please tick (√) whichever is applicable

1. Sex: Male () Female ()

2. Year: 2nd year () 3rd year ()

3. Department

4. BECE Aggregate obtained:

6 and 12() 13 – 18() 19 – 25() 26 – 30() 31 and above ()

PART 2

Please kindly tick (√) the responses that reflect your opinion as much as possible.

SECTION A – Curriculum for Academic Progression

Item No	Statement	Strongly Agree	Agree	Dis-agree	Strongly Disagree	Not Sure
1	Studying English, Mathematics and Science in Technical Institutions will contribute to broaden student's general knowledge.					
2	Studying English, Mathematics and science in technical institutes will enhance students' chance to pursue higher education					
3	English, Mathematics and Science must be compulsory and examinable in the final examinations in technical institutes.					
4	Studying English, Mathematics and Science will improve students in technical					

	Institutes performance.					
5	Students attend English, Mathematics and science classes willingly and show maximum interest.					
6	Teachers of English, Mathematics and science attend classes regularly as the craft subject teachers.					
7	Most students in technical institutes do not take lesson in the core subjects seriously because core subjects are not examinable in the final examination.					
8	Some teachers in technical institutes tell students to focus more on the craft subjects than the core subjects.					

SECTION B

TRAINING AND SKILL ACQUISITION

Item No	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure
9	There are enough tools and equipment for training.					
10	Most often, students do not have enough materials for training.					
11	Students find it difficult to get into industry for industrial attachment.					
12	Students acquire enough practical skills while in the institute to make them self-employed after completions of their programmes.					
13	Students do not have interest in the practical skills acquisition because it is very difficult.					

SECTION C

FINANCING TECHNICAL EDUCATION

14. Who should finance Technical Education in Ghana?
- (a) Parents () (b) Government ()
- (c) N.G.O's () (d) All of them ()
15. Should the students be allowed to pay fees in order to finance Technical Education? Yes () No ()
16. Should the students be allowed to do projects that the Institute can sell to generate income to support funding Technical Education? Yes () No ()
17. Generally, students pursuing Technical Education are from poor homes and cannot pay the school fees and as a result, they become school dropouts? Agree () Disagree ()

SECTION: D

PEOPLE'S ATTITUDE TOWARDDS TECHNICAL EDUCATION

18 Generally, people have the belief that students who are academically weak should be recommended for Technical Education?

True () False ()

19. Well to do parents prefer their children pursuing general Education to Technical Education?

True () False ()

20. Due to people's cold attitude towards Technical Education, students are motivated to do their best in order to disproof that notion.

True () False ()

21. Due to the cold attitude towards Technical Education by some Ghanaians, most of the Technical Education students do not want to be identified as technical students especially during practical activities?

True () False ()

APPENDIX II

QUESTIONNAIRE FOR GRADUATES OF TECHNICAL EDUCATION

INTRODUCTION

This questionnaire is being used for a study by a student at Institute for Development studies, University of Cape Coast to find out the academic progression of graduates from technical institutions in Ghana to tertiary institutions. It is meant solely for academic purposes, so you are assured of confidentiality. Many thanks in anticipation.

Please respond as applicable, thank you.

1. What certificate were you awarded after completion of your Technical Education in the Technical Institute?
(a) NVTI () (b) City and Guilds Intermediate ()
(c) C & G Advance/Technician ()
2. Does your present occupation have bearing with the course studied in the Technical Institute? Yes () No ()
3. Does the certificate obtain being recognized by your employers?
Yes () No ()
If yes, how?
4. Were you placed at the appropriate level at the work place by your employers according to the value of the certificate?

Yes () No ()

5. Are the skills acquired during the Technical Education alone enough to make you self employed?

Yes () No ()

6. Were given enough entrepreneurial skills in order to make you manage your own workshop efficiently?

Yes () No ()

7. Which of the following will you like the Technical Education stress more during the training?

(a) Practicals () (b) Mathematics and Science ()

(c) Entrepreneurship skills ()

8. Can the certificate offer you the opportunity to further your education in any of the tertiary institution in Ghana for higher programme without any impediments?

Yes () No ()

9. Are you willing to contribute in any way to develop Technical Education in Ghana? Yes () No ()

10. In your opinion, how can Technical and Vocational Education and Training can be improved to ensure technological advancement in Ghana?

.....
.....
.....

APENDIX III

QUESTIONNAIRE FOR HEADS OF DEPARTMENTS (HOD'S) AND TEACHERS OF CAPE COAST TECHNICAL INSTITUTE

INTRODUCTION

This questionnaire is being used for a study by a student at Institute for Development studies, University of Cape Coast to find out the academic progression of graduates from technical institutions in Ghana to tertiary institutions. It is meant solely for academic purposes, so you are assured of confidentiality. Many thanks in anticipation.

Please tick (✓) as applicable, thank you.

SECTION A - CURRICULUM

Item №	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree	Not Sure
1	The curriculum of the Technical Education must be revised to enable the graduates be at par with those in general education in terms of academic progression and job placements.					

2	The current Technical Education syllabus available makes more room for practical training than the theoretical aspect.					
3	The current Technical Education syllabus being used is in line with the current technological advancement.					
4	The current curriculum attracts more candidates to opt for Technical Education.					
5	The available curriculum is detailed enough to motivate teachers to put up their best.					

SECTION B - ATTITUDE TOWARDS TECHNICAL EDUCATION)

Item №	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree	Not Sure
6	People have the perception that those who are academically weak opt for Technical Education.					
7	People also have the perception that candidates from poor homes/broken homes normally opt for Technical Education.					
8	It is the perception of the general public that Technical Education graduates earn lower income than graduates from general education.					
9	People look down upon Technical Education products because they most at					

	times occupy the lowest rank at the work place.					
10	People who pass through Technical Education do not encourage their children/relatives to opt for Technical Education because they themselves think is not the best type of education.					

SECTION C

STRUCTURE OF TECHNICAL EDUCATION)

Item №	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree	Not Sure
11	The existing structure of Technical Education that has existed for many years is the best we can have.					
12	The existing structure of Technical Education over					

	the past years paved way for its graduates to progress academically with no difficulties.					
13	The existing structure of Technical Education prepares graduates for self-employment.					
14	The existing structure of Technical Education in the past years attracts more candidates to opt for Technical Education.					
15	The existing structure of Technical Education for the past years leads to technological advancement.					

SECTION D - FINANCING TECHNICAL EDUCATION

Item No	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree	Not Sure
16	Technical education students must pay fees.					

17	Parents/guardians of students in Technical Education are not willing to pay fees or contribute to finance their children education.					
18	Some parents/guardians hold the view that Technical Education is all about trade acquisition and does not require any payment of fees.					
19	Government of Ghana over the years does not pay attention to Technical Education as compared to general education in terms of financial resources.					
20	Technical Education is expensive so no individuals or government is willing to pay for it.					

SECTION E - TRAINING

Item №	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree	Not Sure
21	Training or skills acquired in the technical institute is enough to make students self-employed.					
22	Students must do industrial attachment to improve their skills to make them self-employed.					
23	Most students are lazy and not willing to learn practical skills to prepare them to be self-employed.					
24	Lack of training facilities in technical institutes contributes to students' inability to become self-employed.					
25	Lack of financial support to acquire basic					

	tools and equipment discourage products of technical institutes to become self-employed.					
--	---	--	--	--	--	--

Any additional suggestion or comments:

.....

.....

.....