

**UNIVERSITY OF EDUCATION, WINNEBA**

**COLLEGE OF TECHNOLOGY EDUCATION-KUMASI**

**CHALLENGES IN THE TEACHING AND LEARNING OF CLOTHING AND  
TEXTILES IN FOUR SELECTED SENIOR HIGH SCHOOLS IN ASHANTI  
REGION, GHANA**

**ABIGAIL NAA OFOSUA TETTEY**

7121210020

A dissertation in the **DEPARTMENT OF FASHION DESIGN AND TEXTILES  
EDUCATION** Faculty of **TECHNICAL/VOCATIONAL EDUCATION**, submitted to  
the school of Graduate studies, University of Education, Winneba in partial fulfillment of  
the requirement for award of the Master of Technology in Fashion Design and Textiles.

**JUNE, 2020**

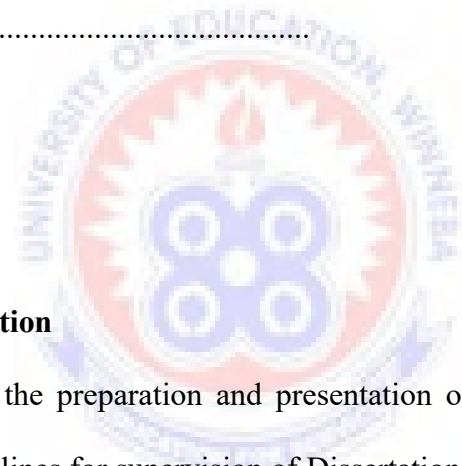
## DECLARATION

### Student's Declaration

I, **Abigail Naa Ofosua Tettey** declare that this dissertation, with exception of quotations and references contained in the published works which have all been identified and duly acknowledged, is entirely my original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: .....

DATE:.....



### Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.

DR. DANIEL DANSO

SIGNATURE:.....

DATE:.....

## **DEDICATION**

This dissertation is dedicated to my parents Mr. Alex Tettey, Mrs. Beryl Tettey, my lovely children and my husband Mr. Joshua Ayisi. Also to my family for their support, prayers and the motivation they gave me.



## **ACKNOWLEDGEMENT**

I wish to express my profound gratitude to my supervisor, Dr. Daniel Danso for his prompt response to my calls and reading through this work and offering suggestions and corrections. I am most grateful to the research assistance; Mr. Alex Kojo okyere, the typist, the various head Masters, Mistress, teachers and all students in the Metropolitan and Districts offices, for their responses and support.



## TABLE OF CONTENTS

<b>CONTENT</b>	<b>PAGE</b>
DECLARATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENT .....	iii
TABLE OF CONTENT .....	v
LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>1</b>
1.1 Background to the study.....	1
1.2 Statement of the Problem .....	4
1.3 Purpose/Objectives of the Research.....	4
1.4 Research Questions .....	5
1.5 Scope of the study .....	5
1.6 Significance of the study .....	6
1.7 Organization of the Study .....	6
<b>CHAPTER TWO</b> .....	<b>7</b>
<b>LITERATURE REVIEW</b> .....	<b>7</b>
2.1 Introduction .....	7

2.2 Development of Education Reforms in Sub-Saharan Africa and their effects on Vocational Education .....	8
2.2.1 Challenges of skill acquisition in formal TVET.....	8
2.3 Development of Education Reforms in Ghana and their impact Problems on Vocational Education .....	10
2.3.1 Vocational Technical Education in Ghana .....	10
2.4 Curriculum .....	17
2.4.1 Curriculum Change.....	18
2.4.2 Curriculum Changes in Ghana: Teachers’ Perceptions.....	20
2.4.3 Teaching Methodology.....	22
2.5 The Needs of Science and technology Teachers.....	29
2.6 The Effect of Teacher Education on Student Achievement.....	33
2.7 Other Measures of Teacher Competence .....	38
<b>CHAPTER THREE .....</b>	<b>41</b>
<b>METHODOLOGY .....</b>	<b>41</b>
3.1 Introduction .....	41
3.2 Study Design .....	41
3.3 Population.....	41
3.3.1 Population for the study.....	42
3.4 Sampling techniques and Sample size .....	42
3.5 Instrumentation.....	42
3.6 Pre-Testing .....	43

3.7 Data Collection Procedure .....	44
3.8 Data Analysis Plan .....	44
<b>CHAPTER FOUR</b> .....	<b>45</b>
<b>PRESENTATION AND DISCUSSION OF FINDINGS</b> .....	<b>45</b>
4.1 Overview .....	45
4.2 Response Rates.....	45
4.3 Demographic Information of the Respondents .....	46
4.4 Results from Teachers.....	46
<b>CHAPTER FIVE</b> .....	<b>62</b>
<b>SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS</b> .....	<b>62</b>
5.1 Introduction .....	62
5.2 Summary of major findings of the Study .....	62
5.3 Conclusions .....	63
5.4 Recommendations .....	63
5.5 Suggestions for Further Research .....	64
<b>REFERENCES</b> .....	<b>65</b>
<b>APPENDICES</b> .....	<b>82</b>
APPENDIX A .....	82
APPENDIX B .....	89

## LIST OF TABLES

<b>Tables</b>	<b>Page</b>
Table: 2.1 Teaching Strategies/Methodologies: Advantages, Disadvantages / Cautions, Keys to Success.....	32
Table: 4.1 Total questionnaire Distributed and received from respondents .....	45
Table: 4.2. Age Distribution of the Teachers Respondents .....	47
Table: 4.3 Age Distribution of the Students Respondents.....	48
Table 4.4: Demographic Information of the Teachers.....	49
Table 4.5: Instructional Materials as a Problem .....	51
Table 4.6: Students Responses on Course of Study Statement.....	53
Table 4.7 Teaching Method as a Problem .....	54
Table 4.8: Students Attitude about the Course of Study.....	55
Table 4.9: Teacher Quality and Availability.....	57
Table 4.10: Curriculum Issues as Problem .....	59



## LIST OF FIGURES

<b>Figure s</b>	<b>Page</b>
Figure 4.1 Clothing and Textiles Teachers.....	46
Figure 4.2 Clothing and Textiles Students.....	48
Figure 4.3, Work experience of respondents (Teachers) .....	50



## ABSTRACT

This study looked at challenges in the teaching and learning of clothing and textiles in four selected Senior High Schools in Ashanti region, Ghana. This study would help reduce the challenges in the teaching and learning. It would also identify ways of improving the teaching and learning of clothing and Textiles in schools of Ashanti region. The research questions were based on Find out the challenges of curriculum and instructional materials affect the teaching and learning of Clothing and Textiles. Teacher quality and their unavailability cause problems to the teaching of Clothing and Textiles and Finally do curriculum problems and instructional materials cause problems to the teaching and learning of Clothing and Textiles. This study employed case study as its research design. The population consisted of teachers teaching and students pursuing clothing and textiles in four (4) Public senior high schools, two each in Kumasi metropolis and Atwima Nwabiagya District of Ashanti Region. They are as following, Osei Kyeretwie Senior High School and Yaa Asantewaa Senior High School in Kumasi metropolis and Nkawie Senior High Secondary/Technical and Mpasatia Senior High School in Atwima Nwabiagya District. The sample frame of one hundred (100) comprised twenty (20) Teachers and eighty (80) students totaling one hundred purposively selected from the schools in Ashanti Region. Two sets of questionnaires were prepared and used to collect data for the study. The findings of the study revealed that there are negative attitudes among the learners as to the feasibility and value of studying Clothing and Textiles and consequently, lack of confidence. There is generally inadequacy in the provision of instructional materials which leads to focusing more on theoretical teaching leading to trainees lacking proficiency in their chosen fields of

specialization. It concludes that, Parents Teachers Association and government to assist technical course with funds to do practical's. Also there should be in service training for Teachers to deal with some of the difficult topics, tests and practical pedagogical skills among teachers, and Parents Teachers Association and government to assist technical course with funds to do practicals. Finally, Teachers should also try to improvise and utilize instructional materials in their teaching.



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

A major objective of the Ghanaian educational system is to equip individuals with employable skills to enable them contribute meaningfully towards the development of the nation Curriculum Research and Development Division (CRDD, 2008). Home Economics is one of the vocational subjects taught in the Ghana Education service and it is designed to promote healthy living in the home and society in general. According to Lemchi (2001), Home Economics is the study of the relationship of people and aspects of their environment such as clothing, housing and finance.

Okpala (2005) described Home Economics as a skill-oriented, decision-making subject, that equips learners with skills and knowledge which will help them to be self-employed and at the same time, contribute effectively to the socioeconomic development of the family and society. In the 2008 Education reform led by Anamoah-Mensah, Home Economics is taught at the junior high school (JHS) level in Ghana Education system, in an integrated subject called Basic Design and Technology (BDT), which comprises Food and Nutrition, Clothing and Textiles, Visual Arts and Pre-Technical Skills. At the senior high school level, Food and Nutrition, Clothing and Textile, and Home Management are taught as separate subjects. Consequently, the main aim of teaching Clothing and Textiles is to train students to acquire knowledge and skills in clothing production and management. Thus the Clothing and Textiles syllabus aims at providing students with experiences that will develop their competences in textiles selection and use and clothing

production and management (CRDD, 2008). Clothing is an important part of a person's image. Wearing appropriate clothing in the workplace is a skill students need to develop. In addition, clothing is a personal and family expense. People who are informed about textiles and construction techniques are more effective consumers.

The fashion industry is an important component of the economy of every country, as well as, an area that provides many opportunities for entrepreneurship. Clothing and Textiles course help students explore career opportunities in this field and help them develop skills needed for employment.

Olaitan (1996) noted that Home Economics is to enable students to explore a vast array of occupations in the field before making a career choice. Anyakoha (2002) added that the essence of separating the components of Home Economics is to ensure that students specialize in the fields of their choice. Clothing is one of the basic needs of man, which influences an individual's health wellness and status (Ukpore, 2006). Clothing and Textiles is among the elective Home Economics subjects which students are expected to study at the senior high school level of education. Arubayi (2003) implied that the aim of Clothing and Textiles is to help learners acquire knowledge, skills and techniques for meeting personal and societal clothing needs. The aim of Clothing and Textiles curricular in the senior high schools is to teach the learners how to strategically plan and use available resources in their environment to improve their homes, families and provide societal Clothing needs (Osisefo, 2004). Clothing and Textiles in schools curricula also provides students with an apprenticeship training in Clothing, Textiles and Fashion,

which if properly carried out will equip them with strategies for earning income in the future (Mberengwa, 2004). Through the subject, students would be trained for homemaking and employment in textile mills and Clothing factories (Redick, 1995).

In addition, Clothing and Textile skills are needed not just for the home and classroom, but for the job market. Students are supposed to learn practical skills which would be useful to them in higher education or enable them get jobs in industries or other formal sectors of the economy. Hence, self-reliance and income generation activities are stressed in Clothing and Textiles (Nhundu, 1997).

With the increasing freedom of movement and of labour within the committee of nations in the world, there is the tendency that the rate of acculturation will be enhanced with the study of Clothing and Textiles. For instance, the massive increase in tourism has led many foreigners to have interest in buying traditional African Textiles and wears. This is an advantage of the gross domestic earnings of the African Nation.

With these justifications for the study of Clothing and Textiles, one begins to appreciate the feasibility and value in teaching the subject in schools. It, however, appears that issues such as students' attitudes, teachers' quality/availability or quantity, instructional materials and curriculum hamper the study of Clothing and Textiles in Ghana. The effectiveness of the Clothing and Textiles as a means for global survival would be compromised if the problems that affect the study of the subject in Ghanaian schools are not unveiled and tackled.

## **1.2 Statement of the Problem**

Presently, senior high school (SHS) students' interest and enrolment in Clothing and Textiles as a subject is low. Lemchi (2001) noted that some students have no interest in the subject. Attitudes associated with Home Economics appear to affect students' enrolment in Clothing and Textiles as a subject and impact performance in the subject. Also, many home economics teachers teach Clothing and Textiles without instructional materials or workshop facilities (Mberengwa, 2004). The quality of teachers, facilities and workshops are totaly inadequate and obsolete. Owolabi et al. (1991) also indicated that a serious disconnection exists between Clothing and Textiles training in senior high schools and the needs of the labour market, as students that do not proceed to higher education have been found to be incompetent in the field of work. Her report showed that, in many cases, employers of labour compensate for insufficient academic preparation by organizing remedial courses for new employees at great expenses. Where students consistently perform poorly, the implication is that adequate teaching and learning has not taken place in schools. Therefore, the problem of this study is to examine the problems associated in the teaching and learning of Clothing and Textiles in senior high schools in Ghana.

## **1.3 Purpose/Objectives of the Research**

The main purpose of this study is to examine the problems associated in the teaching and learning of Clothing and Textiles in Senior High Schools (SHS) in Ghana. Specifically, this study sought to:

- i. Find out the extent to which attitudes of students constitute problems to the teaching and learning of Clothing and Textiles in schools in Ashanti region
- ii. Assess the extent to which teachers' quality and their unavailability constitute problems to the teaching and learning of Clothing and Textiles.
- iii. Find out the extent to which challenges of curriculum and instructional materials affect the teaching and learning of Clothing and Textiles.
- iv. Identify ways of improving the teaching and learning of clothing and Textiles in schools of Ashanti region

#### **1.4 Research Questions**

The following research questions were formulated to guide the study:

1. To what extent do attitudes of students in Senior High Schools (SHS) in Ghana constitute problems to the teaching of Clothing and Textiles?
2. To what extent does teacher quality and their unavailability cause problems to the teaching of Clothing and Textiles?
3. To what extent do curriculum problems and instructional materials cause problems to the teaching and learning of Clothing and Textiles?
4. In what ways can the teaching and learning of Clothing and Textiles in schools of Ashanti Region be improved?

#### **1.5 Scope of the study**

The study would particularly focus on only four selected public senior high schools in the Ashanti Region of Ghana that offer Clothing and Textiles.



### **1.6 Significance of the study**

This study gives new thoughts in understanding the causes, effects and solutions to the problems faced by teachers in the teaching and learning of Clothing and Textiles in the senior high schools in Ghana

### **1.7 Organization of the Study**

The study comprises of five chapters. The first chapter deals with the introduction, which comprised six sub-headings namely; the statement of the problem, purpose/objectives of the research, research questions, significance of the study, scope and finally organisation of the study.

Chapter Two deals with the review of related literature of the study and Chapter Three is about the methodology for the study. In the Chapter Three, the researcher has presented the research design, population, sample and sampling procedures, research instruments, and data collection procedure used for the research.

Chapter Four is on the presentation and discussion of findings and Chapter Five presents the summary, conclusions, recommendations and suggestions for further research.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

In this chapter, the researcher reviews related literature from published and unpublished books, internet, journals and other relevant information on the topic. The following are the main headings that are discussed: Development of Education Reforms in Sub-Saharan Africa and its Problems on Vocational Education Challenges of skill acquisition in formal Technical and Vocational Education and Training (TVET)

Vocational Technical Education (VoTech) in Ghana

Challenges facing Vocational Technical Education in Ghana

Curriculum and Curriculum Change

Curriculum Changes in Ghana: Teachers' Perceptions

Teachers' competence and availability

Teaching Methodology

Teaching and Learning Approaches at the SHS Level

Teaching and Learning Materials

Importance of Materials in Teaching and learning

The Effect of Teacher Education on Student Achievement

## **2.2 Development of Education Reforms in Sub-Saharan Africa and their effects on Vocational Education**

Public TVET institutions, according to Atchoarena and Esquieu (2002), continued to attract a great deal of criticism. Firstly, they were unable to train skilled workers to meet the requirements of enterprises and were unaware of the need for continuing education. Secondly, they were extremely costly. Often, the graduates of these institutions joined the ranks of the unemployed, an indication that the training provided did not match the jobs available. In many countries, including Ghana, public TVET institutions have not been able to adapt to the new structure of the labour market and the new skill requirements of companies in both the formal and informal sectors.

It is commonly accepted that all forms of education will help people to improve themselves and to get better jobs, but many parents believe that only a university education will offer their children the opportunity to acquire good jobs. As a result, many countries find that the number of graduates from universities far exceed the capacity of the labour market to provide appropriate employment. At the same time, these countries are unable to attract enough people to train for those positions of greater need, which might be 'blue collar' jobs that might appear to involve manual labour, be dangerous, dirty and difficult (Commonwealth of Learning, 2001).

### **2.2.1 Challenges of skill acquisition in formal TVET**

Within the early 1990s, numerous concerns were raised about the effectiveness of TVET in Ghana. Nyankov (1996) summarised these concerns concluding:

- Poor quality in the delivery of TVET programmes;
- High cost of training;
- Training not suited to actual socio-economic conditions;
- Disregard of the needs of the informal sector; and
- Disregard of the labour market and high unemployment rate among graduates

In an attempt to address these challenges, Reddan and Harrison (2010) argued that TVET institutions need to restructure their programmes to be responsive to the needs of the job market, especially the industry. To achieve this goal, TVET curricula must focus on outcomes in terms of the skills, knowledge and attitudes required industry. That is, TVET provision should be responsive to the demands of industry.

King and McGrath (2004) argued that with TVET being more diverse because of the changes in the labour market, it should be able to integrate the youth into the working world. Given the prevailing economic trend, UNESCO (2004) identified the two major objectives of TVET as the urgent need to train the workforce for self-employment and the necessity to raise the productivity of the informal sector. They point out that lack of resources have led to cuts in the volume of training provided in public institutions. These cuts are a hindrance to pursuing the critical objectives of providing training and raising production. Considering the expensive nature of TVET as a form of education, it is imperative that an expanded system with necessary and adequate facilities and equipment will lead to the effectiveness of the system.

Related studies carried out by Islam and Mia (2007) in Bangladesh revealed that both formal and non-formal TVET lacked an effective linkage between training and the world of work. It further noted that because of its lack of coherent mode, practical skills training which does not produce the requisite skills for the job market. Additionally, the trainees also lacked training experience, initiative and motivation to discharge their duties effectively.

## **2.3 Development of Education Reforms in Ghana and their impact Problems on Vocational Education**

### **2.3.1 Vocational Technical Education in Ghana**

Education in Ghana is believed to be the vehicle for accelerated economic and social growth and development. This has been the philosophy of governments from the colonial era till today. On the accounts of the belief in the benefits of education, successive governments of Ghana have been using education to implement developmental policies and programs. Vocational technical education had been emphasised in Ghana's education system since the colonial era. The purpose then was to train the youth in various trades such as catering, needlework, carpentry, masonry, blacksmithing, and others to become skilled craftsmen and useful citizens (McWilliams & Kwamena-Poh, 1975). Between 1914 and 1927, the Governor of the Gold Coast, Sir Gordon Guggisburg proposed 16 principles for education. This proposal called for the provision of trade schools. As at 1922, there had been four trade schools established in the country. After the country's independence in 1957 however, it was realised that the type and quality of education inherited from the colonial government did not address the country's needs and critical

problems. Various review committees emphasised this fact and proposed remedies. Significant among them were the Kwapong Committee Report in 1968 and the Dzobo Report in 1973. These set the pace for reforms in Ghana's education system. However, it was not until 1987 that a new structure and content became operative. Under the 1987 educational reform, the objective has been to ensure that all citizens regardless of gender or social status are functionally literate and productive. The current structure under operation consist of six years of primary school, three years of junior secondary school, making up the basic education level; three years of senior secondary school, forming the secondary level; and two to four years of tertiary level education. Vocational technical education is organised at all the three levels in the country: primary level, secondary level and tertiary level. Three different types of vocational technical education are organised. These are the pre-vocational, vocational and technical.

The pre-vocational type of vocational technical education occurs at the basic school level. The aim here is to expose students at the basic education level to a range of practical activities in the vocational field in order to make them familiar with, and stimulate their interest in vocational subjects; this gives students at this level equal opportunity to choose their future careers in either the vocational technical or general field. Also, it equips them with basic occupational skills that will enable those who do not seek further education to enter into gainful paid or self-employment in industry, agriculture and commerce. Graduate from the basic level could also enter the informal sector for apprenticeship training. Currently, there are 6,418 junior high schools in the country. All students in these institutions are to take courses in both pre-vocational and pre-technical subjects

(Government of Ghana, 2007). At the secondary level, training is vocational in nature. Ghana uses a combination of two approaches to organise vocational technical education at this level: 1. there is the parallel system where vocational technical institutions exist alongside the senior high school system. Graduates from the basic level can enter the technical institutes or the senior high schools. In the technical institutes, the aim is to train and impart practical training and skills leading to the provision of artisans, craftsmen, technicians, and other middle -level personnel in commerce, agriculture, technology, science, and industry. 2. The core curriculum approach is also used in the conventional senior high school system. For those who enter the senior high school after the basic level education, there exist a core curriculum and a cluster of elective subjects, which could be vocational technical in nature. Any student interested in a career in vocational technical could select at least three elective subjects in any particular vocational technical field, which the individual will have to study in addition to the four core liberal subjects. At the secondary level, vocational technical education aims at equipping young men and women with relevant productive skill training that will enable them fulfil the country's manpower needs in the field of technology, industry, commerce, agriculture, and business (Baiden, 1996).

There are 503 senior high schools, 23 public technical and 29 vocational institutions in the country that are involved with the delivery of vocational technical education at the secondary level. These are supported by about 700 vocational technical intuitions, which are operated by individuals, religious bodies, and non-governmental organizations; and a vibrant but unregulated apprenticeship system. Vocational technical education at the

tertiary level is technical in nature. It is organised within post-secondary institutions or tertiary institutions. This is the highest level of vocational technical education in the country. The Universities, Polytechnics, and other post-secondary pre-service training institutions, under sector Ministries provide it. The other post-secondary institutions include: Health Training Institutes, Nursing Training Colleges, Agricultural Colleges, Schools of Forestry, Colleges of Education, Institute of Journalism, School of Communication, and Institute of Professional Studies. Courses generally last between two to four years and result in the awarding of a certificate, diploma or a degree. Vocational technical education at the tertiary level provides personnel with the technical knowledge and vocational skills necessary for agricultural, industrial, commercial, scientific, technological, and economic development; while at the same time, pays attention to environmental issues. It aims at training human resources to match supply of skilled labour with demand. Vocational technical education systems in Ghana continuous to undergo reform designed to build on the inherent strengths of the system. Recent major reform concern the setting up of national training bodies, and the enactment of laws to strengthen national vocational training programmes. Government Ghana has recently passed an Act of Parliament that establishes a Council for Technical and Vocational Education and Training (COTVET) which will have overall responsibility for skills development in the country.



### **2.3.1.2 Challenges Facing Vocational Technical Education in Ghana**

Vocational technical education in Ghana faces a lot of challenges as in other countries. In 2003, the Government of Ghana commissioned a body to review the general educational system for strategic planning for the year 2003-2015. The committee reported a serious deficiency in the present public educational system as the neglect of the vocational technical education sub-sector (Government of Ghana, 2007). The report stated that, the reforms introduced in 1987 ignored completely the vocational technical education sub-sector.

This has resulted in poor condition of the infrastructure and training facilities of the institutions, inadequate number of institutions, and outdated training content. Consequently, the quantity and quality of the stock of trained national workforce have been affected. The committee also found out that while the government manages and resources 500 and over senior high schools in the country, only 21 technical and 29 vocational institutions are managed and resourced by both the Ministry of Education and the Ministry of Manpower Development and Employment, the two main bodies responsible for education and training in the country. The report further mentioned that in spite of the fact that vocational technical education is considered more expensive as compared to general education, the Ministry of Education spends only one percent of its annual budget, and the Ministry of Manpower Development and Employments spends 12% of its budget on vocational technical education sub-sector. The government has no significant involvement in apprenticeship training either. Allsop, Attah, Cammack & Woods (2010) reported that government's budget allocation grew to 2.4% in 2007 and

was 1.9% in 2008. Another challenge facing vocational technical education in Ghana is perception that it is a route for those who are not able to function within an academic setting; this perception is compounded by a lack of progression routes from vocational technical education into higher education (African Union, in fact this negative perceptions are not limited to those who have little understanding of vocational education. In 2002, a survey of public TVET teachers found that none of the 87 respondents wanted their own children to study TVET programmes (Anamuah-Mensah, 2004). Aside inadequate financing and negative perceptions, the socio-economic environment and the contextual framework within which vocational education is delivered in Ghana is characterised in general by other factors such as huge numbers of poorly educated, unskilled and unemployed youth, uncoordinated, unregulated and fragmented delivery systems, low quality gender and economic inequities, weak monitoring and evaluation mechanisms, and poor management and ill-adapted organisational structures (African Union, 2007).

To address the numerous challenges facing vocational technical education in the country, both Ghana's Vision 2020 and the Education Strategic Plan, 2003-2015 recognise the need for urgent action. Some of the priorities identified were:

1. Government to make a major shift in its state education policy in favour of the vocational technical education, in order to build the nation's stock of human capital and give employable skills to the numerous youth all over the country.
2. All Technical and Vocational Institutes to be rehabilitated and upgraded as a matter of urgency to the level of the model Institutions-Accra Technical Training Centre and

Biriwa Vocational Institute. Additionally, new vocational technical institutions to be built in all Regions within the next Ten (10) years.

3. Vocational technical institutions to review and update programs to bring them in line with modern trends and practices in industry. The ultimate aim is to make vocational technical education demand-driven and relevant to the needs of Ghanaian industries.

4. Government to formalise Apprenticeship Training, and establish a National Apprenticeship Training Board with membership from various sectors of the economy, to regulate apprentice-training in terms of registration of apprenticeship providers, content, duration of training programs, and certification.

5. A National Council for Technical and Vocational Education and Training (NCTVET) to be established under the Office of the President, to co-ordinate pre-tertiary vocational technical education in the country; since there are several ministries and private sector organizations which provide vocational technical education independently of each other.

6. A National Policy Framework for a nationally coordinated vocational technical education system is formulated.

7. Technical Teacher Training facilities in the country be expanded to cater for the training of more technical and vocational teachers.

8. Government to organise in-service courses for teachers in both public and private vocational technical institutions to improve upon their pedagogical skills.

9. Improve the linkage that exists between vocational technical institutions and industries in order to bring training more in line with the requirements of national industry and commerce. 10. Strengthen leadership and management capacity at both national and institutional levels.

## 2.4 Curriculum

The word curriculum means is the composite of content (e.g. science literacy) provided to learners as required by an authorised body responsible for schools and schooling usually under state law (Hewitt, 2006). A curriculum offering of socially valued knowledge, skills and attitudes made available to students through a variety of arrangements during the time they are at school (Kyriacou, 2001).

The need for a complete overhaul of the education system had been identified In this study, curriculum is understood to mean all subjects *and* activities which education authorities regard as necessary for the child to reach a certain level in his/her development, (Fourie, Grissel & Verster, 1990).

Depending on how broadly educators define or employ the term, curriculum typically refers to the knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet, the units and lessons that teachers teach, the assignments and projects given to students; the books; materials, videos, presentations and readings used in a course, and the tests, assessments, and other methods used to evaluate student learning (edglossary.org). A school curriculum is all about the fundamental reasons why children should learn what; It is all about the planning of learning content and subjects, and the philosophical (and pragmatic) reflection on all three matters (Steyn, De Klerk, & Du Plessis, 2006)

### **2.4.1 Curriculum Change**

A curriculum is the offering of socially valued knowledge, skills and attitudes made available to students through a variety of arrangements during the time they are at school. Effective teaching can be defined as teaching which successfully achieves the learning by students intended by the teacher. The teacher must have a clear idea of what learning is to be fostered. He/she sets up and provides a learning experience which achieves this (Kyriacou, 2001).

The need for a complete overhaul of the education system Ghana had been identified. Curriculum change has been a universal, global tendency. Change in the curriculum affects the lives, relationships and working patterns of teachers, and the educational experiences of learners. It affects parents by altering the education which their children receive and thereby confirming or challenging their own expectations of what school should be like. It affects the community at large, which are aware of the school through the outward conduct and attitude of students, rightly or wrongly understood.

It affects employers, who derive their view of the curriculum from a rough and ready measurement of how the abilities and aptitudes of the boys and girls they recruit match their requirements.

Curriculum changes because it should not only be the means for students to learn, but it should also provide students with what is needed for life after school. Each learner should be competent with the outside world in as far as knowledge is concerned. Knowledge is

perceived to be a process rather than product, which is collectively created, dynamic and changing (Gilbert, 2005).

Curriculum 1987 was introduced as a policy document in 1988, Revised National Curriculum System in 2007, National Curriculum Statement 2006 and Curriculum and Assessment Statement introduced to be implemented in 2007, which is the one currently in use. The impact of such change depends on conditions like availability of successfully framed human resource, equipment to implement the curriculum and also the infrastructure. Infrastructure facilitates the production of goods and services and also the distribution of finished products to markets, as well as basic social services such as school (<http://en.m.wikiInfrastructure#/search>).

In this case of the school scenario, knowledge and skills for learners are goods which need to be serviced by teachers and learners has to produce what they have learnt and acquired from school to the outside world. So, continuous change in curriculum may affect teaching and learning due to the above mentioned reasons.

Knowledge then depends to what a learner has to learn at that time and what skills are required for the learner to have achieved the outcome. Also what are the societal and also nationwide demands are there at that time hence curriculum needs to be revisited and changed.

One of the difficulties in curriculum change is that it involves the introduction of a new discourse about education. It takes time for people to understand and come to accept new ways of thinking about education (Hoadley & Jansen 2002).

It will probably take even longer for those charged with implementing the new curriculum – the teachers- to move out of the ‘comfort zone’ of habit and tradition.

All attempts at transforming the curriculum must, ultimately, improve teaching and learning. It is vital to engage, communicate with, and support teachers from the outset in attempting to transform the curriculum.

#### **2.4.2 Curriculum Changes in Ghana: Teachers’ Perceptions**

It should be noted that the Ghanaian education sector has experienced multiple curriculum changes since 1987, as the curriculum needed to be revised to reflect the democratic values and principles contained in the constitution of Ghana (1992). The changes in curriculum necessitated a probe into teachers’ conceptions and beliefs about the curriculum change and its effects on teaching.

Teachers know the local situation, the local dynamics. Unless teachers are available and willing to participate in curriculum development, there is no future for it. A seminar on Primary Teacher Education held in Sierra Leone, recommended that studies of curriculum development might be introduced into the curriculum programmes of the professional training of teachers (Bishop 1994). The teachers are not against reforms as much as they are offended at the way they are presented to them, not to mention impose on them.

Some teachers are reluctant to see changes come. Many lack skills and knowledge to carry out an innovation. In Britain, the retraining of experienced teachers is one of the most crucial components of curriculum development (Bishop 1994). Fullan (2007) indicates that teachers are the principal agents in curriculum change.

Teachers' beliefs and conceptions shape and strengthen the curriculum development in a country. The DOE (2009) reiterates that teachers hold certain understandings about the curriculum that are not intended by the policy. It is therefore important to bear in mind the fact that teachers' views and beliefs might not be in line with the educational policy. Sometimes teachers agitate correctly for improvements, but at other times they simply don't do things because tasks are too demanding (Hoadley & Jansen, 2002). Pudi (2006) contends that there is a fundamental problem emanating from teachers' understanding of the way educational transformation unfolds.

Swannepoel and Booysen (2006) say that in the past, teachers did not associate with the changes that were effected in the curriculum, as they did not believe that these changes would improve their teaching and learners' learning.

Vandeyer and Killen (2007) argue that, any effort to change teachers' pedagogical practise needs to acknowledge their conception. Teachers' embedded assumptions about teaching must be controlled in order for any curriculum review to achieve its intended outcomes (Spren & Vally, 2010).



In a survey of 1500 non-university teachers at all levels, it was reported that teachers had confidence in methods of decision making, and had faith in textbooks and the didactic methods embedded in them. The majority believed in learning based on investigation rather than memorisation. They worried about pupil motivation and the influence of the mass media (Boyd-Barrett & O'Malley, 1995).

### **2.4.3 Teaching Methodology**

Methodology is the science and art of teaching which influence the impact of knowledge and the understanding of what is taught at that particular time (Okyere kojo, 2001).

This section reviews the related literature to the study and the theoretical frame work related to the recommended strategies of teaching at all level. Hands - on training is critical to teacher's willingness to implement new instructional practices into the classroom.

According to Showers (1990), "theory – only training" typically results in little skills and negligible transfer to classroom practice thus limiting successful learning. Ultimately, as technology continues to evolve and other needs arise, teachers will be faced with decision making situations and have to be equipped to make those decisions. This requires additional skills such as ability to evaluate and select the appropriate teaching strategies that are effective and efficient for specific applications during lesson delivery.

### **2.4.3.1 Teaching and Learning Approaches at the SHS Level**

According to Shulman (1987), pedagogical reasoning is linked to the practical aspect of teaching through teachers' comprehension of purposes, subject matter structures, and the ability to transform these through stages of preparation, representation, selection and adaptation.

This notion of teaching should underpin teacher education pedagogy in the training colleges. It is well known in the field of education that the best of the curriculum and the most perfect syllabus remain dead unless quickened into life by the right methods of teaching (Kochhar, 1985).

He also puts it that, there is no royal road to successful teaching. There are many roads – high ways and by - ways, royal road and narrow lanes, delightful paths and rough ones which need to be tried for meeting particular needs and situations the teacher should therefore be able to use permutations and combinations of methods, devices and techniques to make teaching and learning interesting, vital and living.

Ashton and Crocker (1987) found significant positive relationship between education course work and teacher performance in four of seven studies they reviewed – a large share than those showing subject matter relationships. Antwi (1992) noted in his study that, the teaching profession is still in the process of building up a specialized and systematic education based on intellectual training.

Consequently some people with various levels of education, including those with no professional qualification have been employed as teachers.

There is therefore the need to search for more effective science and technical teaching strategies or methods that would make the impartation of knowledge of basic concepts to students more enjoyable, interesting and practicable. Such strategies perhaps, include cooperative based learning, instructional strategies (activity-based) which have been found to improve learning outcomes (Okebukonla, 1984, Slavin, 1990). Despite the above recommended strategy. There are other findings that revealed that, high teacher absenteeism, frequent loss of instructional time, poor instructional quality, poor management, inadequate textbooks, lower and inadequate practical knowledge were major problems that hinder effective and efficient delivery of basic science concepts to students at the Basic Level (Fobih et. al, 1999).

From the deduction above, an active, multi-sensory approach (activity method) to science teaching can be effective for children learning than the traditional way of teaching through reading from textbooks and doing problems through rote memory, of formula and facts (lecture method). Other findings have it that teachers who rely on readings and writing as the sole means of instruction presents all of his or her students with a disadvantage (Kimmel and Deck, 1995).

### **Advantages of the Activity-Based Method**

An activity – based method is anything which is carried out with a purpose in a social environment involving physical and mental action. Such activities help in the establishment of stimulating environment for creative expression (Kochhar, 1985).

The activity-based methods of teaching science at the basic level have the following advantages;

- a. It makes lessons interesting in the sense that even dull and difficult tasks become tolerable with the application of the activity principle.
- b. It also installs in students the sense of creativity, freedom of expression, initiative and leadership qualities.
- c. It also makes teaching and learning more realistic and meaningful to the students who interact with physical materials and share ideas.
- d. Students also develop the attitude of open-mindedness. This is because students are free to express opinions they fit is appropriate to problems posed.
- e. Students are also encouraged to use local resources in locating information that can be used for the resolution of problems.
- f. Activity-based method helps to keep the pupil fully absorbed in the learning process and also makes the pupil self-discipline and self-advancement through self-education.

In spite of the numerous advantages highlighted above there are a few shortcomings that go with the activity method. They include the following;

- a. Considering the availability of teaching and learning materials and the lack of funds to acquire them, this method can be very expensive.
- b. In this method, classroom management and control can be very difficult hence affecting the final results.
- c. Without guidance from the teacher, students become frustrated and dejected when they are not able to come out with their findings.

Despite these few shortcomings, the activity-based method is by far the best of the two methods discussed above. This is because, as stated earlier, it makes teaching and learning more concrete, real and meaningful instead of abstract.

#### **2.4.3.2 Teaching and Learning Materials**

Instructional materials for basic school science and technology include textbooks, laboratory manuals; other books about scientific matters, kits, software, CDs, sewing machines, scissors and other multimedia materials such as videos that provide equipment and materials for practical and specific inquiry-based lessons.

Not only are these materials a primary source of classroom science and technology learning, but because the professional and development for teachers is often structured around instructional materials, they also play a profound role in the education of teachers. Thus, to achieve learning goals in technology practicals, students and teachers must be provided with instructional materials that reflect the technological development of the country. Eshiet (1987) is of the view that adequate provision of instructional materials is

an important method that science teachers can use in promoting skills acquisition in consonance with the objective of developing practical and manipulative skills in learners.

“Assessment of student’s performance exerts extra-ordinary influence on the lives of children and their families and on every level of education system” (Stern, 1999), including the selection of instructional materials.

The review processes of selecting instructional materials for effective teaching of practical in technology and science require understanding of the standards and foster rigorous analysis of the materials that enhance powerful learning experiences (Brearton and Shuttleworth, 1999). According to Tyson (1997) and Tyson –Bernstein (1988), such materials would improve curricula and significantly impact daily teaching practices.

Bajah, Akinwumigu and Orimoloye (1986) are all of the opinion that availability of physical and materials resources are very important for the sources of any worthwhile educational Endeavour.

It is also worthy to note that teaching and learning materials should be relevant to the learning needs of the students; if not, the main objective would be defeated. As documented in the TIMSS project, many instructional materials used for teaching science in the United States emphasize breadth of coverage at the expense of a deep understanding of fundamental technological and scientific concepts (Schmidt, Mchninght & Raizen, 1997).

### **Importance of Materials in Teaching and learning**

According to Adeyanju (1991), learning can be reinforced with learning aids of different variety because they stimulate, motivate as well as arrest learner's attention for a while during the instructional process. He added that learning aids are instructional materials and devices through which teaching and learning are done in schools.

In similar observations, some investigators claim that whenever they taught with some of the learning aids, their students get more stimulated because the learning aids help students to become more attentive. In addition, students' positive attitudes generate more interest for lessons, and as a result, students participate better in class activity.

Studies on teacher education and the use of instructional materials have been carried out and reported by several investigators including those of Agun and Okunrotifa (1977), Agun (1986), Akanbi and Imogie (1986; 1988 and 1999), Agun (1986) pointed out the development of skills by teachers undergoing their training so that they could be able to use a wide variety of instructional materials sufficiently.

The various researchers found that teachers who are trained and untrained need some form of materials to teach their lessons effectively. They however, pointed out that the relevance of choice of instructional materials types that are used and the quality of the instructional material types that teachers use must be investigated.

Ogunniyi (1982) held a similar view that, Nigerian science and technology school teachers have to be retrained in the modern methods of instruction and on how to use

appropriate learning materials and equipment to harness student's enthusiasm and maximize learning. Furthermore, instructional materials are considered to make the teachers work more effectively and to provide an enriched classroom atmosphere (Davies, 1972).

Ainley (1981) stated that the standard of equipment and materials should be of great importance in the teaching and learning process. According to him they help to foster science and technology teaching activities which involves students in a variety of stimulating practical activities.

## **2.5 The Needs of Science and technology Teachers**

Primarily, what the science and technology teacher needs is simply a conscious drive, or desire on the part of the technology teacher, is necessary for the improvement of technology and practical teaching (Moore, 1977).

A significant point of note is that teachers who teach at the basic level especially technology, are from diverse groups and thus require different needs. High quality in-service programmes designed to meet the perceived needs of science teachers are necessary if teachers are to respond and benefit from staff development programmes. This is in line with the study of Baird and Rowsey (1989) which highlighted teachers' complaints that much time spent during in-service programme and activities has been wasted where such programmes were not applicable in meeting the respective classroom needs. They therefore added that without accurate data on teachers' needs, planning is



not only difficult, but results generated are likely to be disappointing to both teachers and those who offer the in-service courses.

Science and technology teachers also need support in planning and designing their science instruction as well as equipping themselves with generic pedagogical knowledge and skills. On the other hand, teachers only require moderate assistance in managing their science instruction and in measuring students' performance, (Mohamod, 2002). He argued that Science and technology teachers needs evolve with time as well as social and political scenarios that navigate the policy implementation of the country.

Also equipping teachers with multimedia technology can enhance effective instruction in the classroom. Loucks – Horsley, Hewson, Love, and Stiles (1998) have it that the key feature of technology is not only as a tool for presenting ample opportunities for diverse learning experiences, but it can become the test support for professional learning.

Science and technology teachers need to be reflective teachers. This is because reflection provides a structured opportunity for teachers to consider ramifications of their experiences and better understand their roles inside and outside the classroom and within their immediate communities such as the faculty and their relation with the school's administration. Problem – solving aims to develop logical thinking of teachers as well as creative thinking. Such skills also develop their capability to arrive at corrective actions when something went wrong. Critical thinking skills provide learners the ability to build

upon knowledge. It is important for the teachers to be expert and competent on the field of learning integration to support their aims inside the classroom (Klein, 2006).

It is also important to note that technology teachers need to be confident and self – reliant, since these are good attributes of a good teacher.

Understanding own practices (Gemoran, 1992) and developing knowledge, skills and self – efficacy (Bandura, 1981) can enhance teachers’ self – confidence. A developed self – confidence can deliver well – planned and modeled lessons, modules and courses. Well - designed activities engage students in learning.

Likewise, teachers need to learn about classroom management and develop a sense of self confidence to facilitate a rapport within the class (Krasnow, 1993). A classroom management practice as a need and a priority appears to be the most difficult area for teachers who are experiencing teaching problems. He is of the opinion that, issues within a classroom need to be addressed immediately so as not to get in the way of teaching and learning practices.

**Table: 2.1 Teaching Strategies/Methodologies: Advantages, Disadvantages / Cautions, Keys to Success**

CLASSROOM TYPE SETTING			
Strategy/Methodology	Advantages	Disadvantages/ Cautions	Keys to Success
<p><b>Brainstorming:</b> A process for generating multiple ideas/options in which judgment is suspended until a maximum number of ideas has been generated. Following generation of ideas, options are typically analyzed, a best solution identified, and a plan of action developed.</p>	<ul style="list-style-type: none"> <li>• Actively involves learners in higher levels of thinking</li> <li>• Promotes peer learning and creates synergy</li> <li>• Promotes critical thinking</li> <li>• Helps groups reach consensus</li> </ul>	<ul style="list-style-type: none"> <li>• Requires that learners discipline their inputs to the discussion (generate ideas without taking judgments)</li> <li>• May not be effective with large groups</li> <li>• Can lead to “group think”</li> </ul>	<ul style="list-style-type: none"> <li>• Use to stimulate thinking, creativity, inquiry, and consensus</li> <li>• Do not use the method when there is only one or a few possible “correct” responses</li> <li>• Provide clear instructions for how the process works</li> <li>• Ensure that participants adhere to the rules</li> </ul>
<p><b>Case-Based Small-Group Discussion:</b> Small groups of 5-10 address case-based tasks, exchanging points of view while working through a problem-solving process. In <b>Problem-Based Learning</b>, the problem comes first and learners work through the problem through progressive disclosure by making hypotheses, exploring mechanisms, developing and researching learning issues, and applying new information to the case.</p>	<ul style="list-style-type: none"> <li>• Actively involves participants and stimulates peer group learning</li> <li>• Helps participants explore pre-existing knowledge and build on what they know</li> <li>• Facilitates exchange of ideas and awareness of mutual concerns</li> <li>• Promotes development of critical thinking skills</li> <li>• Develops leadership, teamwork, communication, and collaboration skills</li> <li>• Promotes higher levels of thinking (application, synthesis, evaluation)</li> </ul>	<ul style="list-style-type: none"> <li>• Can potentially degenerate into off-task or social conversations</li> <li>• Can be a challenge to ensure participation by all, especially in larger groups</li> <li>• Can be frustrating for participants when they are at significantly different levels of knowledge and skill</li> <li>• Can be unpredictable in terms of outcomes</li> <li>• Increases potential for interpersonal conflicts</li> <li>• Can be time-consuming</li> </ul>	<ul style="list-style-type: none"> <li>• Use carefully crafted cases that are prototypical of content objectives</li> <li>• Use trained faculty or student facilitators to effectively manage group dynamics</li> <li>• Help the group address conflict in constructive ways</li> <li>• Ensure seating arrangement that facilitates discussion</li> <li>• Create safe environment for learners to participate, ask questions, and make mistakes without sanctions</li> <li>• For groups meeting regularly</li> </ul>

	versus simple memorization	over a period of time, establish ground rules
<p><b>Computer Simulation:</b> In the medical context, used to teach specific examination, procedural, and data interpretation skills and the effects of drugs and interventions in a realistic situation without endangering patients. May use highly realistic computerized dummies.</p>	<ul style="list-style-type: none"> <li>• Can portray realistic situations</li> <li>• Allows for focused learning that eliminates irrelevant aspects</li> <li>• Can be used when “real” experiences are not readily available or would endanger patients</li> <li>• Provides immediate feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Can be costly to buy and maintain computerized simulators</li> <li>• Limits number of people who can access the learning at the same time</li> <li>• Can create scheduling and logistics challenges</li> <li>• Choose learning objectives that involve hands-on experience and that are best learned first in a way other than through direct patient contact</li> <li>• Use faculty trained to teach using simulation to facilitate the experience and provide feedback</li> </ul>

Source of reference: Based largely on, adapted from, and added to the work of Wehrli, G., and Nyquist, J.G. (2003). Creating an Educational Curriculum for Learners at Any Level. AABB Conference, retrieved from <http://hsc.cunm.edu/som/ted/>

## 2.6 The Effect of Teacher Education on Student Achievement

Hanushek, Kain and Rivkin (1998), like many other researchers (see for example Darling-Hammond, 1999), have concluded that the school effect on achievement derives mainly from variations in teacher quality. On the basis of longitudinal data from more than one-half million Texas students in grades 3 to 6, they concluded that school quality is an important determinant of academic performance and an important tool for raising the achievement of low-income students. Furthermore, variations among teachers dominated school quality differences, while school leadership or the organisation of schools did not have any measurable effect.

Another result was that there were important gains in teaching ability over the first few years of teaching, but that these effects declined after the first several years. A master's degree was not found to be associated with improved teacher skills. The estimates in this study suggested that differences in teacher quality explained at least 7.5 percent of the variation in measured achievement. However, measured factors captured just a small proportion of the differences among teachers. From these results the authors drew the conclusion that teacher education is a small component of variation in school quality.

That a master's degree had no influence on achievement, at least in lower grades, is not a new result add space (see, for example, Monk, 1994; Darling-Hammond, 1999).

According to Darling-Hammond (2000), subject-matter knowledge has often been found to be an important factor in teacher effectiveness. However, its relationship to teaching performance is curvilinear: it exerts a positive effect up to a threshold level and then tapers off in influence. Measures of pedagogical knowledge including knowledge of learning, teaching methods and curriculum have more often been found to influence teaching performance, and frequently these factors exert even stronger effects than subject matter knowledge. Doubts may, however, be raised concerning the interpretation of the results from the Hanushek, Kain, & Rivkin, (1998) study as they may be biased due to omitted variables. With information on teaching experience and highest degree earned alone it is not possible to link the length and content of teacher education to students' achievement. Without any information on teachers pedagogical knowledge, and considering the heterogeneity of teacher education, the absence of casual effects is not surprising.

Hanushek (2002) argued that government policies targeting school resources, including raising qualifications of teachers do not effectively improve quality. Added requirements for teacher certification, for example, show no strong relation to teacher quality and student achievement. In addition, some good teachers may not want to take specific courses; thus, the group of people who might enter teaching is reduced. Darling-Hammond, Berry & Thoreson (2001) on the other hand, stressed the difficulty of generalisations about teachers' qualifications based on certification status only, since both regular certification and short-term certification operate under widely different standards in different states in the United States. There are three short-term licensing categories; temporary, emergency and provisional. These are handled differently in various states. Generally, temporary and emergency credentials are valid for at most two years and are non-renewable. These credentials are frequently developed to authorise individuals to teach when they have entered with credentials from other states or are in the process of completing minor coursework and test requirements. Emergency licenses are often granted to those with teaching licenses in another category and who have a bachelor's degree, upon request by the school district due to a shortage of licensed applicants. Some states provide provisional nine-months certificates for those who meet the requirements for a regular teaching, school service, or administrative certificate in another state, and who hold bachelor's degree (or higher). During the nine months, basic skills and subject matter knowledge tests must be taken. In other states non-standard credentials are good for one year during the training process, after which successful candidates receive a full standard license.

Goldhaber and Brewer (2000) found no differences in efficiency between teachers with standard certifications and teachers with temporary certification. Their study investigated 12th grade students' achievement in mathematics and science, and they concluded that there is little rigorous evidence that teacher certification is systematically related to student achievement. This result has been strongly criticized by Darling-Hammond et al. (2001). The sub-sample of teachers with short-term certification was very small and they were likely to vary substantially in preparation, some being fully qualified from another state and some having just a few weeks of summer courses.

Ferguson (1991) studied teachers results on a license test measuring pedagogical skills as well as subject knowledge. They related the result to student achievement and found these variables to be more powerful than class size and school size. Teacher competence could, after controlling for students' social background, explain the difference in level of achievement between black and white students. Elliot (1998) noted in a longitudinal study that well-qualified teachers had a significant influence on high school students' achievement in mathematics and science. In this study teacher qualification was measured by education, experience and teaching methods. Evertson, Hawley & Zlotnik (1985) compared well-educated teachers with less educated teachers. The results showed achievement gains for students with well-educated teachers. They also showed that achievement was related to teachers' knowledge of the subjects taught.

In a study involving 7000 students Wenglinsky (2000) found that the quality of the teaching force has a comparable impact on students' test scores as socioeconomic status.

Darling-Hammond (1999) investigated students' test results in reading and mathematics. In the study 44 states with 65 000 teachers were included. The data comprised several variables indicating teacher competence, such as certification and experience. A number of other variables were included in the study such as education policy, demographics, student characteristics and school characteristics. Controlling for student background, teacher certificate and subject matter knowledge were shown to correlate with students' test results and to have great explanatory power. Teacher salaries or class size did not show any significant influence when holding students' background constant.

In a review, Wayne and Youngs (2003) examined the evidence on teacher characteristics and student test scores in a U.S. sample, controlling for students' prior achievement and socioeconomic status. Wayne and Youngs could not draw any conclusions about the importance of teacher degrees and coursework for elementary students since too few studies were available. Results showed, however, that high school students' mathematical achievement improved when their teachers had standard certification.

As mentioned earlier, for a given subject most states in the U.S. offer a variety of types of certification and there is uncertainty about the comparative effectiveness of teachers whose certification is of non-standard type (Wayne and Youngs, 2003).

Proponents of alternative certification have argued that some lowering of the standards attracts persons with better qualities by reducing entry barriers. Darling-Hammond (2000) found that teachers from short-term programs have high attrition. Even more, these short-term programs tend to focus on generic teacher skills rather than on subject-



specific pedagogy, on singular techniques rather than a range of methods and on specific immediate advice rather than on research or theory.

Individuals who have had no strong teacher education intervention often maintain a single cognitive and cultural perspective that makes it difficult to understand experiences, perspectives and knowledge bases of students who are different from themselves. Teachers from extended programs (typically 5-year programs) are more satisfied with their preparation, colleagues and principals view them as better prepared, they are as effective with students as are more experienced teachers and they are more likely to stay in their profession. These teachers come to understand teaching as an inherently non-routine endeavour where they develop pedagogies that can reach different learners.

In their meta-analysis, Wayne and Youngs (2003) concluded that they would like to see studies that explicitly distinguish between degrees in subjects and degrees in the teaching of particular subjects, as well as studies that distinguish between degrees in the teaching of particular subjects, and general degrees in teaching or education.

## **2.7 Other Measures of Teacher Competence**

One common indicator of teacher competence is teaching experience. However, according to Wayne and Youngs (2003), the findings regarding experience are difficult to interpret for several reasons. First, experience captures the effect of whether teachers were hired during a shortage or a surplus. Cohorts will have experienced similar competition, and selection effects are likely to confound effects of experience. Secondly, experience measures capture differences in teacher motivation resulting from time

constraints on parents during years when their own children require more attention. Finally, if there are differences in effectiveness between those who leave the profession and those who stay, experience measures would capture those as well. Such differences are probably dynamic, changing with labour markets and cultural trends.

Several studies have found a positive relationship between teacher experience and student achievement (e.g., Murnane & Philips, 1981; Klitgaard & Hall, 1974). This relationship is not simple and linear however. According to Darling-Hammond (1999), teachers with less than three years' experience are less efficient than are colleagues with more experience. After five years the additional contribution weakens. Andrew and Schwab (1995) noted that inexperienced teachers from lengthy teacher education programmes can be as efficient as experienced teachers. Teachers' age may also be of importance for effectiveness but this variable is of course highly correlated with experience.

Postlethwaite and Ross (1992) observed in analyses of data from the IEA Reading Literacy study that female teachers were more efficient than male teachers. In these analyses though, no control for teacher education was made.

According to Postlethwaite and Ross (1992), there is some evidence indicating that teacher in-service training may be positively related to student achievement. Angrist and Lavy (1998) have reported considerable gains. The program they studied in Israel was quite lengthy and included pedagogical instruction for teachers once a week and during the last year of the program the training comprised 12 hours a week. Results from this

high quality program may be difficult to generalise to more modest efforts of in-service training but Angrist and Lavy found the benefit to be higher than the cost. It would thus be more expensive to achieve corresponding student achievement gains with a reduction in class size or increased lesson time. Wiley and Yoon (1995) also found positive effects of in service training in California. Wenglinsky (2000) observed certain types of in-service training, such as working with different student populations and higher order thinking, to be related to students' test results.

Research on teacher co-operation in efficient schools has been shown to correlate with student achievement (Rutter et al., 1979; Mortimer et al., 1988). In this type of research the importance of school climate for students' results has often been stressed. However, research on efficient schools lack theoretical constructs that can explain the processes involved. The studies are primarily descriptive and, according to Levin (1995), effective schools research has not led to any improvement in student achievement when attempts have been made to implement the characteristics of efficient schools.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter looks at the following areas: The research design, population, sampling method, instrumentation, pre-testing, and data collection techniques and data analysis.

#### **3.2 Study Design**

The study uses descriptive approach. A descriptive research intends to present facts concerning the nature and status of a situation, as it exists at the time of the study (Creswell, 1994). It is also concerned with relationships and practices that exist, beliefs and processes that are ongoing, effects that are being felt, or trends that are developing. In addition, such approach tries to describe present conditions, events or systems based on the impressions or reactions of the respondents of the research (Creswell, 1994).

#### **3.3 Population**

The population for the study comprises teachers teaching and students pursuing clothing and textiles in four (4) Public senior high schools, two each in Kumasi metropolis and Atwima Nwabiagya District of Ashanti Region. They are as following, Osei Kyeretwie SHS and Yaa Asamtewaa SHS in Kumasi metropolis and Nkawie SHS/Tech and Mpasatia SHS in Atwima Nwabiagya District.

### **3.3.1 Population for the study**

Kitchenham and Pfleeger (2002) define target population as the group or the individuals to whom the survey applies. In other words, you seek those group or individuals who are in a position to answer the questions and to whom results of the survey apply. The target population for this study was Clothing and Textiles teachers in the Ghana Education Service of Kumasi metropolis and Atwima Nwabiagya District of Ashanti Region.

### **3.4 Sampling techniques and Sample size**

The simple random sampling method was used to select eighty (80) Clothing and Textiles students' purposive sampling was used to select twenty (20) Clothing and Textiles teachers from two study areas. Kitchenham and Pfleeger (2002) defined simple random sampling as a method of sampling in which every member of the target population has the same probability of being included in the sample. This form of sampling tends to eliminate subjectivity and obtains a sample that is both unbiased and representative of the target population. This method also facilitated the generalization of the findings from the study. Purposive sampling was used to select the twenty teachers because the researcher already knew they could give the information ruled.

Generally, the sample size used for the study was hundred (100). The sample comprised of both males and females of different ages.

### **3.5 Instrumentation**

Even though a number of instruments for data collection could have been used, interview and questionnaire were found as most appropriate and used for the study. Questionnaires

are easy to administer, friendly to complete and fast to score and therefore take relatively very little time of researchers and respondents. The researcher constructed close-ended and open-ended questions, which were validated by the researcher's supervisor before administering the questionnaire. The questionnaires prepared were based on the research questions for the study. Two sets of questionnaires were prepared, one for students and the other for the teachers of Clothing and Textiles subject.

The study was to gather data on the teachers and students' challenges on the teaching and learning of Clothing and Textiles in Senior High Schools in Ghana. The questionnaire for the study was divided into sections. Section A deals with the demographic information of the respondents, section b also deals with the instructional materials as a problem and section c looks at the teaching methods as a problem to the teaching and learning of clothing and textiles whilst section d was on students attitudes as a problem to the teaching and learning of clothing and textiles.

The questionnaires designed were mostly closed- ended and that gave respondents possible answers to select from. There were also few open- ended types questions in the questionnaires.

### **3.6 Pre-Testing**

The pre-testing of the questionnaire was conducted with 24 respondents made up of twenty (20) students and four teachers (4) of Clothing and Textiles selected randomly from the Osei kyeretwie Senior High School, which is a mixed gender school. The

responses were not added to those from the actual sample of the study. Respondents were encouraged to make useful suggestions on items with ambiguities.

### **3.7 Data Collection Procedure**

In total one-hundred (100) questionnaires were printed and distributed to the Teachers and students of Clothing and Textiles in the selected schools in Ashanti Region of Ghana. Twenty copies each of the questionnaires for students together with five copies of teachers' questionnaires each were sent to the four schools. The researcher distributed the questionnaires in classrooms of the students and received the responses same day for all the schools visited. On the part of the teachers, the maximum time was one week for the responses to reach the researcher.

### **3.8 Data Analysis Plan**

Using descriptive statistics, data were analysed in terms of frequency distribution and percentages using Statistical Packaged for Social Sciences (SPSS) v16 software. The data were presented using tables, frequencies, figures, and percentages.

## CHAPTER FOUR

### PRESENTATION AND DISCUSSION OF FINDINGS

#### 4.1 Overview

The study sought to identify challenges associated with the teaching and learning of Clothing and Textiles. Two sets of questions were prepared; one for teachers and the other for students. The sample for both students and teachers of Clothing and Textiles was one hundred (100). The results are presented in this chapter in the form of charts, frequencies, bar charts and percentages

#### 4.2 Response Rates

In all a total of one hundred questionnaires were administered and all were completed and retrieved by the researcher (see Table 4.1) The response rate achieved was 100%. The researcher's presence of the study areas accounted for the high response rate.

**Table: 4.1 Total questionnaire Distributed and received from respondents**

<b>Respondents</b>	<b>Questionnaire Distribution to Respondents</b>	<b>Number Distributed</b>	<b>Number Retrieved</b>	<b>Percentage (%)</b>
A	Clothing & Textiles Teachers	20	20	20
B	Clothing & Textiles Students	80	80	80
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: field survey



### 4.3 Demographic Information of the Respondents

This section presents personal information on the respondents which included; gender, age, work experience, position of the respondents and educational qualification, which are illustrated in Tables and Figures.

### 4.4 Results from Teachers

The results of the clothing and textiles teachers by gender are presented in Figure 4.1.

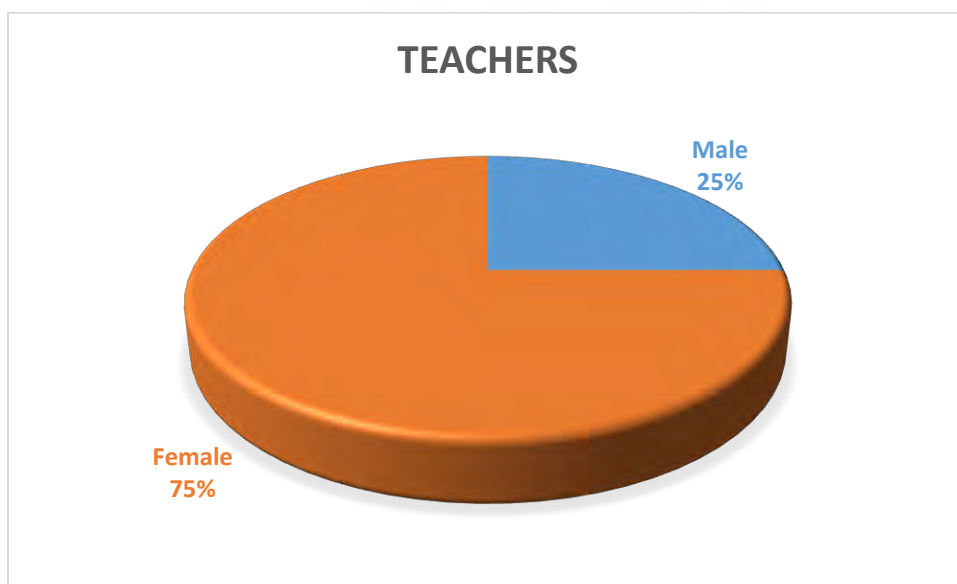


Figure 4.1 Clothing and Textiles Teachers

It is evident that 5 respondents representing 25% of the total respondents are male, while 15(75%) of the respondents are female, as shown in Figure 4.1. The female clothing and textiles teachers dominate their male's counterparts.

**Table: 4.2. Age Distribution of the Teachers Respondents**

<b>Ages</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>
25– 30yrs	5	25	25
31 – 36yrs	7	35	35
37 – 42yrs	5	25	25
43 – 49yrs	3	15	15
Above 50yrs	-		
<b>Total</b>	<b>20</b>	<b>100</b>	<b>100</b>

Source: field survey, (2015)

With reference to Table 4.2, about 7(35%) of the respondents were within the age range of 31-36 years, followed by 5(25%) between 25 – 30yrs, and 3(15%) who are between 43 - 49yrs were the minority. It shows that the bulk of the work force is still young and energetic. Therefore, most members of the work force are within the productive age. This encourages effective performance.

### **Results from Clothing and Textiles Students**

Figure 4.2. Shows the clothing and textiles students results. 15 respondents representing 10(12.5%) are male, while 70(87.5%) majority were female. There were more females than males among all the respondents.

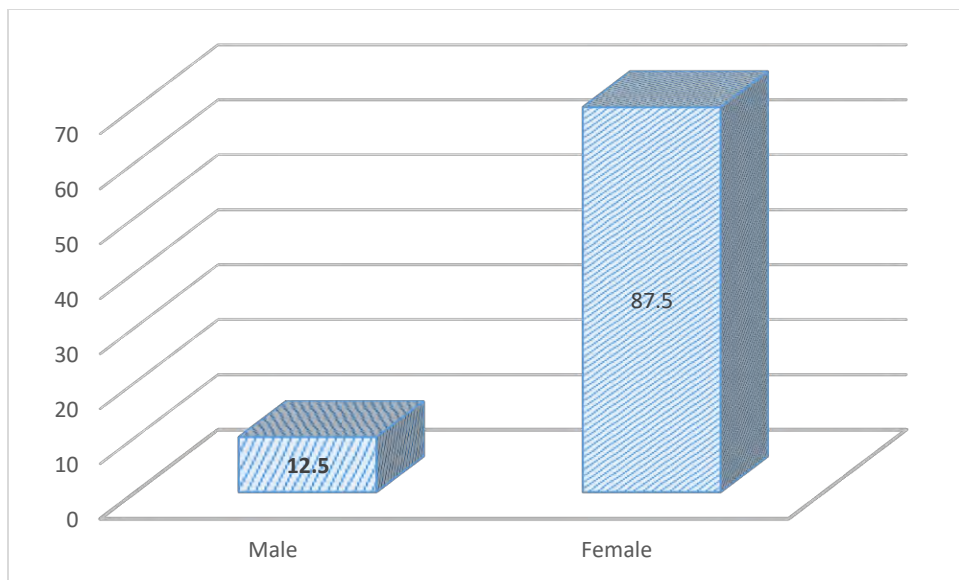


Figure 4.2 Clothing and Textiles Students.

**Table: 4.3 Age Distribution of the Students Respondents**

Age	Frequency	Percentage%
16-19yrs	74	92.5
20- 23yrs	6	7.5
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey 2015

Table 4.3, shows the responses of age of the students. Majority of them were between the ages of 16 – 19 years and the rest were 20 – 23 years old.

**Table 4.4: Demographic Information of the Teachers**

<b>Demographic Information</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Educational Level</b>		
Advance Certificate	-	-
HND	7	35
1 <sup>st</sup> Degree	9	45
2 <sup>nd</sup> Degree/Masters	4	20
<b>Total</b>	<b>20</b>	<b>100</b>
<b>Apart from teaching what do?</b>		
Trading	18	10
Dress Making	2	90
Farming	-	-
<b>Total</b>	<b>20</b>	<b>100</b>
<b>Marital status</b>		
Single	2	10
Married	18	90
Divorced	-	-
Widow	-	-
<b>Total</b>	<b>20</b>	<b>100</b>
<b>Work experience</b>		
1-5 years	4	20
6-10 years	8	40
11-15 years	6	30
16-20 years	2	10
More than 20 years	-	-
<b>Total</b>	<b>20</b>	<b>100</b>

Source: field study, (2015)

Table 4.4, presents the educational qualifications of respondents, the study revealed that 7(35%) majority were 1<sup>st</sup> degree holders, 9(45%) had HND and 4(20%) had 2<sup>nd</sup> /Masters degrees as their qualifications.

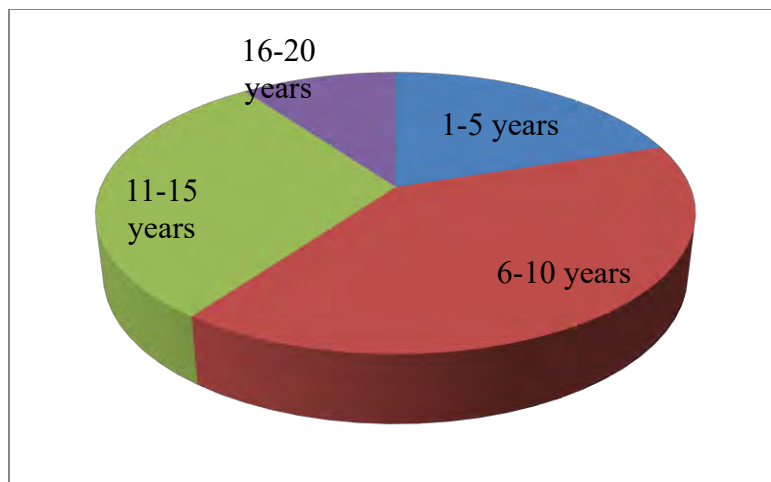


Figure 4.3, Work experience of respondents (Teachers)

With regards to working experience, Table 4.4 and Figure 4.3, reveal that 8(40%) of the respondents have 6-10 years, 6(30%) have 11-15 years, and 2(10%) have 16-20 years work experience. Andrew and Schwab (1995) noted that inexperienced teachers from lengthy teacher education programmes can be as efficient as experienced teachers. Teachers' age may also be of importance for effectiveness but this variable is of course highly correlated with experience.

In other to find out what they do after teaching, majority 18(10%) said they are into treading, while only 2(90%) were in to Dress making. That is, practicing what they have actually learnt or teaching. The results confirmed that the respondents do not have enough practical working experience in the clothing and textile industry.

**Table 4.5: Instructional Materials as a Problem**

S/N	Subject/ Course of Study: Statement	Responses									
		SA		A		NS		SD		D	
		No	%	No	%	No	%	No	%	No	%
	To what extent do you encounter these problems										
	Lack of funds for the purchase of materials	70	88	-	-	-	-	10	13	-	-
	Lack of teachers' knowledge and skill to use the available materials	40	50			10	13	25	31	5	6
	Lack of sufficient time to use instructional materials					30	37.5	50	62.5		
	Too many recommended texts books to read do not allow room for the use of other materials	55	69	5	6					20	25
	Inability to school authorities to provide materials needed for learning	50	62.5			10	13	20	25		
	Inability of parents to buy needed materials for students			75	94			5	6		
	Inability of teachers to use instructional materials to make learning motivating	30	37.5					10	13	40	50
	Lack of well-equipped Clothing and Textiles laboratories	10	13	15	18.7	10	13	40	50	5	6
	Inability of teachers to improvise instructional materials	35	37.5	20	25					25	31
	Irregular power supply for using electronic materials.							80	100		

Source: field survey, (2015)

Key	SA	A	NS	SD	D	%	No
Meaning	Strongly Agreed	Agreed	Not Sure	Strongly Disagreed	Disagreed	Percent	Number

Table 4.5, presents instructional materials is a problem. Respondents were asked to indicate whether lack of funds for the purchase of materials is a problem 70(88%) strongly agreed and 10(13%) strongly disagreed.

Lack of teachers' knowledge and skill to use the available materials 40(50%) strongly agreed as against 30(37%) strongly disagreed and disagreed. while 10(13%) not sure.

Lack of sufficient time to use instructional materials 30(37.5%) not sure and 50(62.5%) strongly agreed. This corroborates to the work of Darling-Hammond (2000), subject-matter knowledge has often been found to be an important factor in teacher effectiveness. However, its relationship to teaching performance is curvilinear: it exerts a positive effect up to a threshold level and then tapers off in influence.

Too many recommended texts books to read do not allow room for the use of other materials 55(69%), 5(6%) strongly agreed and agreed respectively, while 20(25%) disagreed.

Inability for school authorities to provide materials needed for learning 50(62.5%) strongly agreed, 10(13%) not sure, 20(25%) strongly disagreed

Inability of parents to buy needed materials for students 75(94%) agreed and 5(6%) strongly disagreed.

Inability of teachers to use instructional materials to make learning motivating 30(37.5%) strongly agreed, while 10(13%) and 40(50%) strongly disagreed and disagreed respectively

Lack of well-equipped Clothing and Textiles laboratories 10 (13%) and 15(18.7%) strongly agreed and agreed 10(13%), not sure 40(50%) whiles 5(6%) strongly disagreed and disagreed respectively.

Inability of teachers to improvise instructional materials 35(37.5%) strongly agreed 20(25%) agreed as against 25(31%) disagreed.

Irregular power supply for using electronic materials 80(100%) disagreed.

Are you computer literate and Can you access the internet the following results were giving 30(37.5%) and 50(62.5%) strongly agreed as against strongly disagreed respectively.

**Table 4.6: Students Responses on Course of Study Statement**

S/N	Subject/ Course of Study: Statement	Responses									
		SA		A		NS		SD		D	
		No	%	No	%	No	%	No	%	No	%
4	You have a teacher in the textile programme/subject	50	62.5	30	37.5						
5	The teacher is very punctual and regular at school	60	75	20	25						
6	The teacher uses methods which makes the subject very interesting			50	62.5	30	37.5				
7	The teacher is interested and zealous in teaching					60	75	20	25		
8	The teacher uses class room hours to do his own business in the expense of the students			70	87.5	10	12.5				

Source: field survey, (2015)

Table 4.6, depicts the information on the statement that does students have teachers in the textile programme/subject. Strongly agreed and agreed recorded 50(62.5%) and (37.5%)



respectively. The respondent strongly agreed and agreed 60(75%) and 20(25%) respectively the statement that the teachers are very punctual and regular at school.

They strongly agreed and agreed 60(75%) and 20(25%) the teacher only teach theory leaving the practical works. 60(75%) of the students strongly agreed that, the three-year course is adequate for skills needed for self-employment as against 20(25%) agreed.

Are you allowed to handle and use the tools/ machines strongly agreed and agreed recorded 60(75%) and 20(25%) respectively.

All the students 80(100%) strongly agreed that the course content is adequate enough to make you self-employment

**Table 4.7 Teaching Method as a Problem**

S/N	Items on Teaching Method as a Problem	Responses	
		Frequency	Percentage %
	What teaching method is use?		
	Activity	6	30
	Project	1	5
	Discussion	6	30
	Activity and discussion	5	25
	Group	1	5
	Lecture	1	5
	How do you assess the effectiveness of your method?		
	Very effective	20	100

Source: field survey, (2015)

### Teaching and Learning Methods

This section analyses the observation of teaching and learning of teachers who have been teaching the subject for at least two to six years. The aim was to examine how the theory matches with the practical activities in the classroom Table 4.7. Out of the number of teachers who responded, 6(30%) used activity as a teaching method, 6(30%) used the

discussion method, and 5(25%) used both activity and discussion methods. It could be deduced that only 3(15%) of the teachers used the group, project and the lecture methods of teaching. Most of the teachers use a combination of the discussion and the activity methods of teaching. It was found that the discussion and/ or activity methods allow every student in the class opportunity to contribute to the discussion thereby enhancing student learning. Discussion and/ or activity methods task the students to research more into a topic or read before the next lesson. How do you assess the effectiveness of your method? The whole respondent said very effective 100% this support Wehrli and Nyquist (2003) findings.

**Table 4.8: Students Attitude about the Course of Study**

Students Attitude about the Course of Study	Responses									
	SA		A		NS		SD		D	
	No	%	No	%	No	%	No	%	No	%
Do not consider the study of Clothing and Textiles important	35	44					45	56		
See Clothing and Textiles career as a job for the illiterates	45	56							35	44
Consider money spent on doing Clothing and Textiles projects as a waste	45	56					35	44		
Do not feel confident that they will do well	68	85					12	15		
Students do not have interest in the textile programme/subject	35	44					45	56		
Students were forced to study the subject	50	63					30	38		

Source: field survey, (2015)

Table 4.8, demonstrates students' attitude about the course of study as problem. The results indicated 35(44%) strongly agreed that students do not consider the study of Clothing and Textiles important as against 45(56%) strongly disagreed.

Students See Clothing and Textiles career as a job for the illiterates 45(56%) strongly agreed, while 35(44%) disagreed. With regard to money spent on doing Clothing and Textiles projects as a waste 45(56%) strongly agreed 35(44%) strongly disagreed to the statement. This finding agrees with Anene-Okeakwa (2002), who noted that many students hate Home Economics as a subject in the school; some have little interest in the subject that they do not half way and drop it. A reason for the finding might be because of general societal attitudes that see vocational subjects as subjects for the under achievers and girls (Owolabi et al. 1991).

It is clear in the Table that 68(85%) majority strongly agreed that students do not feel confident that they will do well in the subject while 12(15%) strongly disagreed.

It was revealed by 35(44%) strongly agreed to the statement that students do not have interest in the textile programme/subject as against 45(56%) strongly disagreed. Furthermore, 50 (63%) of the Students strongly agreed that they were forced to study the subject 30(38%) strongly disagreed. This agreed with what Imarhiagbe 2002; Okeke (2006) said 'It might also be as result of lack of appreciation and awareness of learners on the important role of Clothing and Textiles to socio-economic advancement of the nation. Whatever the reasons, the negative attitudes of the students are likely to hinder effective learning of the subject because studies looking into the attitudinal patterns of school learners have established that in schools' classroom instruction, attitudes determine to a great extent, the degree of success to be achieved'.

**Table 4.9: Teacher Quality and Availability**

S/N	Teacher Quality and Availability	Responses									
		SA		A		NS		SD		D	
		No	%	No	%	No	%	No	%	No	%
	There are inadequate Clothing and Textiles teachers in our school.							80	100		
	There are adequate Clothing and Textiles teachers but teach only theory without practical in school.	50	63					30	38		
	The teachers spend almost all the class time on the lessons with no time left for practical work.	55	69					25	31		
	The teachers mostly do mere dictation of notes	55	69					25	31		
	Teachers are not concerned that as many students as possible understand the lessons.	40	50					40	40		
	The teachers' Scolding makes learning difficult for us in the class.	55	69					25	31		
	The teachers avoid questions from students	20	25					60	75		

Source: field survey, (2015)

Table 4.9: presents Teacher quality and availability in the clothing and textile programme. When asked if there are inadequate Clothing and Textiles teachers in your school. 80(100%) strongly disagreed was the affirmative response.

There was 50(63%) strongly agreed to the statement that there are adequate Clothing and Textiles teachers but teach only theory without practical in school, and 30(38%) strongly disagreed. This shortfall in technical training confirms a study conducted by Akplu and Amankrah (2008) on the efficacy of technical programmes which revealed that technical graduates lack the requisite practical skills for the world of work and, in most cases, such graduates are retrained before being employed.

It was evidenced in Table 4.9, 55(69%) strongly agreed that, the teachers spend almost all the class time on the lessons with no time left for practical work. as against 25(31%) strongly disagreed. The teachers mostly do mere dictation of notes 55(69%) strongly agreed and 25(31%) strongly disagreed. Teachers are not concerned that as many students as possible understand the lessons. 40(50%) strongly agreed and 40(40%) strongly disagreed

The teachers' Scolding makes learning difficult for us in the class. 55(69%) strongly agreed and 25(31%) strongly disagreed. The teachers avoid questions from students 20(25%) strongly agreed and 60(75%) strongly disagreed. This is in line with Anyakoha (2002), who made it clear that what students learn cannot go beyond what their teachers are able to present them. Several research reports such as Olaitan and Mbah (2001), Osisefo (2004) and Uko-Aviomah (2005) indicated that students' poor performance at the

end of a school year is attributable to factors relating to the skill and effectiveness of the teachers.

**Table 4.10: Curriculum Issues as Problem**

S/N	Items on Curriculum Issues	Responses									
		SA		A		NS		SD		D	
		No	%	No	%	No	%	No	%	No	%
	The syllabus is too wide	66	83					14	17		
	The tests are always so difficult	60	75					20	25		
	Many of the topics are difficult	65	81							15	19
	There are no excursions or fieldtrips	50	62	30	38						
	The methods of teaching are not interesting			50	62			20	25	10	12
	The teachers attend to only those who know the subject			10	12			70	88		
	Students are not exposed to practical until the final certificate examination	5	6	45	56			30	38		
	The course content is adequate enough to make you self-employed or for further studies.	25	31			20	25			35	44
	The time table allows for enough time for practical lessons.	68	85					12	15		
	There are adequate tools/equipment/machines for practical.			15	19					65	81
	Teacher: skills and knowledge are in accordance with only theory in the curriculum	60	75					20	25		
	There is no in-service training for teachers	65	81					15	19		

Source: field survey, (2015)

Table 4.10, illustrates curriculum Issues as problem in the study of clothing and textiles in the senior high school. The respondents were asked to indicate their level of agreement

and disagreement as the study syllabus for the programme is too wide for them, 66 (83%) of the respondents strongly agreed and 14(17%) strongly disagreed to the statement.

The tests are always so difficult 60(75%) strongly agreed and strongly disagreed 20(25%).

With reference to Table 4.10, most of the respondent 65(81%) strongly agreed that many of the topics are difficult and the rest disagreed. Majority, 50(62%) strongly agreed that there are no excursions or fieldtrips, while 30(38%) agreed. The methods of teaching are not interesting 50(62%) agreed, 20(25%) strongly disagreed and 10(12%) disagreed.

To find out whether the teachers attend to only those who know the subject 10(12%) agreed as against 70(88%) strongly disagreed to the statement. The course content is adequate enough to make you self-employed or for further studies 25 (31%) strongly agreed, 20(25%) sure not and 35(44%) disagreed. If this important ingredient of practical skills is missing in technical education, it will confirm Miller's (1987) standpoint that vocational and technical education has very little, if any, value to the individual, the community, or to the economy unless the skills that are learnt enable people to get and hold jobs.

The time table allows for enough time for practical lessons. 68(85%) strongly disagreed and 12(15%) strongly agreed to the statement. There are adequate tool /equipment/machines for practical 65(81%) strongly disagreed and 15(19%) strongly agreed see Table 4.10.

Teacher's skills and knowledge are in accordance with only theory in the curriculum 60(75%) strongly agreed and 20(25%) strongly disagreed to the assertion. There is no in-service training for teachers 65(81%) strongly agreed and 15(19%) strongly disagreed. This supports Postlethwaite and Ross (1992) findings that there is some evidence indicating that teacher in-service training may be positively related to student achievement.





## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter of the study summarizes the findings made and draws conclusions from the findings. It also presents recommendations that would help to address some of the problems associated in the Teaching Learning of Clothing and Textiles in Senior High Schools in Ghana

#### 5.2 Summary of major findings of the Study

The key findings of the study have shown that the teaching/learning of Clothing and Textiles is best with a variety of problems. These problems are summarized as:

- Negative attitudes among the learners as to the feasibility and value of studying Clothing and Textiles and consequently, lack of confidence.
- Curriculum and instructional impediments ranging from inadequate practical teaching and quantity, lack of stimulating materials, difficult topics and tests, inappropriate methods, to lack of practical pedagogical skills among teachers.
- Lack of funds and failure of teachers to improvise and utilize instructional materials.
- There is generally inadequacy in the provision of instructional materials which leads to focusing more on theoretical teaching leading to trainees lacking proficiency in their chosen fields of specialization.
- There are inappropriate teaching methods used for practical teaching.

### **5.3 Conclusions**

Under situations mentioned above, the desired goals of the teaching and learning of Clothing and Textiles can hardly be attained. There is no doubt that Clothing and Textiles, just like other vocational subjects is an expensive programme, especially the inevitable aspect of providing for quality resources (teachers, relevant classroom interactions, workshops and facilities. It becomes imperative that programme on attitude change, high quality teachers knowledgeable in practical skills, sufficient instructional time and materials, as well as appropriate methodology should be designed and implemented for effective teaching of the subject. High quality stimulating materials such as computers should be provided and Clothing and Textiles teachers should regularly be sponsored to seminars and workshops. The programme is practical oriented, where emphasis is on skills acquisition. Therefore, the desired objectives cannot be achieved without making provision for these basic resources in the right proportion.

### **5.4 Recommendations**

In view of the findings and conclusions, the following recommendations are made.

- To address the short supply of training materials and basic hand tools for skill training in the senior high technical schools, all stakeholders should contribute in providing adequate training. The senior high technical schools should ensure that practical lessons are both effective and efficient to achieve the desired result of imparting the practical skills necessary for the world of work.

- For the realisation of quality in practical skill training, the senior high schools technical programmes should vigorously promote industrial attachment programmes for both staff and students.
- Students should be counseled about the negative attitudes among the learners as to the feasibility and value of studying Clothing and Textiles and consequently, lack of confidence.
- Curriculum and instructional impediments such as adequate teaching and stimulating materials should be provided.
- There should be in service training for Teachers to deal with some of the difficult topics, tests and practical pedagogical skills among teachers, and
- PTA and government to assist technical course with funds to do practical's
- Finally, Teachers should also try to improvise and utilize instructional materials in their teaching.

### **5.5 Suggestions for Further Research**

This research can be replicated by increasing the sample size to cover a larger study area.

## REFERENCES

- Adeyanju, J. L. (1991). Production of cheap instructional materials for the 6-3-3-4 system of education with emphasis on the first six years. *Trends and research in educational technology*, 45-53.
- African Union (2007). *Strategy to Revitalize Technical and Vocational Education and Training (TVET) in Africa*. Paper presented at a Meeting of the Bureau of the Conference of Ministers of Education of the African Union (COMEDAF II+) 29-31 May 2007 Addis Ababa Ethiopia.
- Agun, I. & Okunrotifa P. O. A. (1977). Educational technology in Nigeria teacher education. *Education for Development: International Perspective on Expanding Role of Teachers Education*. (ICET) p.75.
- Agun, I. (1986). Institutional Support for Education Technology, the case of college of education: *A paper presentation at the national symposium on status and trends in educational technology*. Nigeria Technology Centre Kaduna. 16-21. November.
- Ainley, J. (1981). The importance of facilities in science education. *European journal of science education*. 3(2), 127-138.
- Akanbi, K. & Imogie, I (1988). Selection, utilization and evaluation of instruction. Ibadan; Y-Books, 91-92.
- Akanbi, K. & Imogie, I (1989). Selection, utilization and evaluation of instruction. Ibadan; Y-Books, 27.
- Akanbi, K. & Imogie, I (1986). Selection, utilization and evaluation of instruction. Ibadan; Y-Books, 96.

- Akinwumiju, J.A. & Orimoloye, P.S. (1986) Accountability in public examinations. In A. Dada (Ed.), *Mass failure in public examination causes and problems*. Ibadan: Heinemann Educational Books (Nig) Ltd.
- Akplu, F.H., & Amankrah, J.Y. (2008). *Technical and vocational education and training (TVET) Sector mapping for learn4work: Draft*. Dutch schokland programme on TVET.
- Akyeampong, D. A. (1991). Mathematics and current Educational reforms: a presidential address delivered on the occasion of the 23<sup>rd</sup> national conference of the Mathematical association of Ghana; in *Nkonsonkonson* vol. 14, Accra: GES-teacher education division. Pp 9-13.
- Allsop, T., R. Attah, T. Cammack & E. Woods (2010). Mid-Term Evaluation of the EFA Fast Track Initiative – Country Case Study: Ghana. Cambridge: Cambridge Education, Mokoro & Oxford Policy Management.
- Amir S. (1993). *In-service training needs assessment for Malaysian Secondary school teachers*; Unpublished PhD. Thesis: The University of Michigan.
- Anamuah – Mensah, J. Otuka, J.O.E. & Mensah, F. (2001). *Development of Remedial Method for teaching electric circuits in secondary schools*. SACOST, Winneba.
- Anamuah-Mensah, J. (2004). *Vocational/Technological Education for Accelerated Wealth Creation: Critical Issues Facing the Nation*. Paper presented at the 56th New Year School Conference organised by the Institute of Adult Education at the University of Ghana, 30 December 2004.
- Anastasi, A. (1988). *Psychological Testing*. New York: Macmillan.

- Andrew, M., & Schwab, R. L. (1995). Has reform in teacher education influenced teacher performance? An outcome assessment of graduates of eleven teacher education programs. *Action in Teacher Education*, 17, 43-53.
- Angrist, J. D. & Lavy, V. (1998). Does teacher training affect pupil learning? Evidence from matched comparisons in Jerusalem public schools. Working paper 6781. Cambridge: National Bureau of Economic Research.
- Antwi, M.K. (1992). *Education, Society and development in Ghana*. Accra: Unimax Publishers Ltd.
- Anyakoha, E.U. (2002/1991). An approach for improving the effectiveness of Home Economics and Textiles and Clothing in Anambra State secondary schools. *Nigeria Vocational Journal*, V: 31-36.
- Arubayi, D. O. (2003). Problems confronting the teaching of Clothing and Textiles in tertiary institutions. *Journal of Educational Research and Development*, 2(1): 53-62.
- Ashton P. & Crocker, L. (1987) systematically study of planned variations. New York: Macmillan.
- Baiden, F. A. (1996). Technical and vocational education in Ghana. In *The development of technical and vocational education in Africa: Case study from selected countries* (pp. 81-122). Dakar, Senegal: UNESCO Regional Office.
- Baird, W. & Rowsey, R. (1989). A Survey of secondary science teachers' needs. *School Technology, science and Mathematics*. 89 (4): 272 – 284.

- Bajah, S.T., Akinwumigu, K., & Orimoloye, F. (1986). *Implementation of the new SSC Technical curriculum*. Keynote Address presented at the STAN, National Vocational and Technical workshop, Enugu, April, 27, May 2<sup>nd</sup>.
- Bandura, A. (1981). *Self referent thought: a development analysis of self-efficacy*. London, Cambridge University Press.
- Bhuwanee, T. (2006). *Reforming technical and vocational education in Sub-Saharan Africa: Case studies of Ghana - Mauritius - Tanzania and Zimbabwe*. Dakar, Senegal: BREDA.
- Bishop, G. (1994). *Curriculum Development*. London: MacMillan Press Ltd.
- Boyd-Barrett & O' Malley (1995). With introduction: *Approaching the media*. Newbold (Eds.). *Approaches to Media*. London: Edward Arnold.
- Breaton, M.A., & Shuttleworth, S. (1999). Racing a comet. *Journal of staff development*. P.30-33.
- Bryman, A. & Crommer, D. (1990), *Quantitative Data Analysis for social scientists*. London: Routledge.
- Bush, W.S., Kulm, G. and Surati, D. (Unpublished). *Preparing teachers for Mathematics textbook selection*. Iowa: kendall/Hunt.
- Bybee R.W. Ed. (1996). *National Standards and science curriculum challenges, opportunities and recommendations Dubuque*. Iowa: Kendall/Hunt.
- Bybee, R.W. (1997). *Achieving scientific literacy: From purpose to practices*. N.H.: Heinemann.
- Cohen, D.K. & Arbon (1997). *Instructional Policy and classroom performance*. America journal of physics 51(5), 67-71.

- Commonwealth of Learning (2001). *Addressing the challenges of TVET*. Vancouver, Canada: Author.
- Craft, A. (1996). *Continuing professional development: A practical guide for teachers and schools*. London: The Open University press.
- Creswell, J. W. (1994). *Research design. Qualitative and quantitative approaches*. Thousand Oaks, California: Sage.
- Creswell, J.W. (2005). *Educational research. Planning, conducting and evaluating quantitative and qualitative research.*, New Jersey Pearson.
- Curriculum Research Development Division (CRDD, 2007). *Teaching syllabus for Senior High Schools. Ghana*.
- Curriculum Research Development Division (CRDD, 2008). *Teaching syllabus for Senior High Schools. Ghana*.
- Curriculum Research Development Division (CRDD, 1986). sedco publishing limited.
- Dahlloff, U.S. (1971). *Ability Grouping content validity and curriculum process Analysis*. New York: Teachers College Press.
- Darling-Hammond, L. (1999). *Teacher quality and student achievement: A review of state policy evidence*. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington.
- Darling-Hammond, L. (2000). *How teacher education matters*. *Journal of Teacher Education* 51 (3), 166-173.
- Darling-Hammond, L., Berry, B., & Thoreson, A. (2001) *Does Teacher Certification Matter? Evaluating the Evidence*. *Educational Evaluation and Policy Analysis*. 23 (1), 57-77.



- Davis, J. (1972). An assessment of changes in science instruction and science facilities initiated by NDEA. *Title funds use for high school science in Tennessee between 1965- 1970*. unpublished Ph.D. thesis, University of Tennessee (University Microfilms, 73-2439).
- Department of Education (DOE 2009). Final Report: Report of The Task Team for the Review of the implementation of the National Curriculum Statement. Pretoria: Government Printers
- Dillion, J, Osborne, I, Fair Brother, R., & Kurina, L. (2000). *A study into the professional views and need of science teachers in primary and secondary schools in England*, London; King's College.
- Elliot, M. (1998) School finance and opportunities to Learn: Does money well spent enhance students' achievement? *Sociology of Education*, 71 , 223-245.
- Eshiet, I (1987). *Remedy for students poor performance in science, interment of local scientific experience in curriculum implementation to motivate learning*. *Journal of the STAN* Vol.125,p.2 .
- Evertson, C. M., Hawley, W. D., & Zlotnik, M. (1985). Making a difference in educational quality through teacher education. *Journal of Teacher Education*, 36 (3), 2-13.
- Farrell, P. (1997). *Teaching pupils with learning difficulties: strategies and solution*. London: Cassell.
- Ferguson, R.F. (1991). Paying for public education: New evidence on how and why money matters. *Harvard Journal on Legislation*, 28 (2), 465-498.
- Fletcher, J.A. (2001). *Appraisal of mathematics teachers in Ghana*. UEW, Ghana.

- Fobih, D.A., Akyeampon, K., & Koomson, A.K. (1999). *Ghana primary school development final evaluation of project performance report commissioned by the ministry of Education, Ghana.*
- Fourie, D. L., Grissel, M. & Verstel, T. L. (1990). Education 1, Advanced College Series. Pietermaritzburg: Via Africa.
- Freire, P. (1972). *Pedagogy of the oppressed*. London: sheed and ward.
- Fullan, M. G. (2007). *The New Meaning of Educational change*. London: Cassel.
- Gemoran, A. (1992). *Social factors Educational Research* (6<sup>th</sup> ed.), 4, 1224.
- Germain, R. (2001). *Access to Numeracy. British Journal of Special Education*, 28 (4), 182 – 286.
- Ghana Education Service (2007). *Improving the education sector in Ghana*. Accra, Ghana: Ministry of Education.
- Gilbert, J. (2005). *Catching the Knowledge Wave? The knowledge Society and the Future of Education*. New Zealand: NZCER.
- Goldhaber, D., & Brewer, D. J. (2000). Does Teacher Certification Matter? High School Teacher Certification Status and Student Achievement. *Educational Evaluation and Policy Analysis*, 22 (2), 129-145.
- Government of Ghana (2007). *Ghana's Education System*. Accra. Ministry of Education.
- Hanushek, E. A. (2002). *The Failure of Input-Based Schooling Politics*. Working Paper 9040. NBER Working Paper Series. Cambridge MA: National Bureau of Economic Research.

- Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (1998). Teachers, Schools and Academic Achievement. Working Paper 6691. NBER Working Paper Series. Cambridge MA: National Bureau of Economic Research.
- Hedges, J. (2000) *The importance of posting in becoming a teacher in Ghana*. MUSTER discussion paper 4 sussex centre for international educational, University of Sussex.
- Hewitt, T. W. (2006). Understanding and Shaping Curriculum. What we teach and why. United States of America: Sage Publications, Inc.<http://en.m.wiki/Infrastructure#/search>
- Hoadley, U & Jansen J. 2002b. Curriculum: From plans to practices> Learning Guide. Cape Town: Oxford University Press  
<http://en.m.wikiInfrastructure#/search>.
- Hudson, P. *Mentors and modeling primary science teaching practices*. Queenslave University of Technology: New South Wales Department of Education and Training.
- Hutchinson, J., and Huberman, M. (1993). Knowledge dissemination and use in science and mathematics education.
- Imarhiagbe, K. O. (2002). Redirecting vocational and technical education in Nigeria. In: SO Oriafu, POE Nwaokolo, G.C Igborbor (Eds.): *Refocusing Education in Nigeria*. Benin-City: DaSylva Influence, pp. 232-238.
- Islam, R., & Mia, A. (2007). The role of education for rural population transformation in Bangladesh. *Asia-Pacific Journal of Cooperative Education*, 8(1), 1-21.

- Johnson, D.W. and Johnson, R. (1978). 'Cooperative, competitive and individualistic learning; *Journal of research and Development in Education*. Vol. 12, 3-15.
- Kamisah, O. (1999). *Inculcating and integrating the use of critical thinking skills in science students teachers in Malaysia*. Unpublished PhD. Thesis, University of Manchester, United Kingdom.
- Kappara, A. (1993). *Leadership and institutional change. Example programs for training change leaders for two-year post secondary institutions*. Presentation to the American Vocational Association.
- Kerlinger F.N., and Lee H.B. (2002). *Foundation of behavioral research*. Fourth edition Australia: Wadsworth Thompson.
- Kimmel, H. & Deck F. P. (1995). Instructional technology: A tool or a panacea? *Journal of science Education and technology*, 4(4), 332.
- King, K., & McGrath, S. (2004). *Knowledge for development? Comparing British, Japanese, Swedish and World Bank aid*. London, UK: Zed Books.
- Kitchenham B. A., & Pfleeger (2002). Towards a framework for software measurement validation and sampling, *IEEE Transactions on software Engineering*, 21(12).
- Klein, M. B. (2006). *New teaching and teacher issues*. New Delhi. Nova Publishers.
- Klitgaard, R. E., & Hall, G. R. (1974). Are there unusually effective schools? *Journal of Human Resources*, 10 (3), 90-106.
- Kochhar, S.K. (1985). *Method and Technique of Teaching*. New Delhi. Sterling Publisher. Pvt. Ltd

- Krasnow, M. H. (1993). *Waiting for Thursday: New Teachers discover teaching, in paper presented at the annual Meeting of the American Educational Research Association, Atlanta, GA.*
- Kyriacou, C. (2001). *Effective Teaching in Schools*. Spain: Graphy Cems.
- Lemchi, S.N. (2001). Incorporating contemporary issues into Nigeria Home Economics curriculum. In: E U Anyakoha (Ed.): *Research Imperative and Challenges for Home Economics in Nigeria*. Home Economics Research Association of Nigeria (HERAN), Department of Vocational Teacher Education, University of Nigeria, Nsukka.
- Levin, H. (1995). Raising educational productivity. In Carnoy, M. (Ed.), *International Encyclopedia of Economics of Education*, 2nd edition (s 283-291). Cambridge, UK: Cambridge University Press.
- Loucks – Horsley, S., Hewson, P.W., Love, N., & stiles, K. (1998). *Designing professional development for teachers of science and Mathematics*. California: Corwin press Inc.
- Lucas, J.K. (2001). *Investigating the effectiveness of group work in the teaching and learning of science at the senior secondary school level*. An unpublished project presented to University of Education, Science Department. Winneba.
- Mahamod, I (2002), *Kajian Keber/uan Guru- Guru sains Sekolah Rendahdalam Pengajaran sains with Need*.

- Massell, D., Kirst, & Hoppe, M. (1997). Persistence and change: standards – based systematic reform in Nine States. *Consortium for policy Research in Education Policy Brief No. RB-21- March 1997.*
- Mberengwa, L. (2004). Curriculum change in Home Economics education at Gweru Teachers College, Zimbabwe,1975-1995 *Journal of Family and Consumer Sciences Education*, 22(2): 17-23.
- McWilliam , K.,& Kwamena-Poh, F. (1975). *The Development of Education in Ghana.* Longman Group Limited.
- Monk, D. H. (1994). Subject matter preparation of secondary mathematics and science teachers and student achievement. *Economics of Education Review*, 13(2), 125-145.
- Moore K.D. (1977) Development and validation of a science needs assessment profile. *Journal of research in science teaching*, 14(2) 145-149.
- Mortimore, P. et al. (1988). *School Matters: The Junior Years.* London: Paul Chapman Publishing Ltd.
- Murnane, R. J., & Phillips, B. R. (1981). Learning by doing, vintage and selection: Three pieces of the puzzle relating teacher experience and teaching performance. *Economics of Education Review*, 1(4), 453-465.
- Neuman, W.L (2000). *Social research methods. Qualitative and quantitative approaches.* Boston: Allyn and Bacon.
- Ngome, C. (1992). *Vocationalisation of education in Kenya: Factors that have influenced policies and practices in the colonial and post-colonial period.* Nairobi, Kenya:

- Kenyatta University Press. *Dasmani: Challenges in the Upper East Region of Ghana* Asia-Pacific Journal of Cooperative Education, 2011, 12(2), 67-77 77.
- Nhundu, T. J. (1997). The effects of policy marginalization on the implementation of a curriculum innovation: A case study of the implementation of education with production in Zimbabwe. *Journal of Curriculum Studies*, 29(1): 47-70.
- Nyankov, A. (1996). *Current issues and trends in technical and vocational education*. Paris, France: UNEVOC-International Project on Technical and Vocational Education.
- Nyoagbe, J. (1993). *The impact of Educational reforms on teacher job performance at the basic education level. A research project*. Accra: GNAT Secretariat.
- Ogunniyi, M. B (1982). *Teaching and learning primary science*. 23<sup>rd</sup> Annual conference Proceedings of the Science Teachers Association of Nigeria, 33-37.
- Okebukonla, P.A.O. (1984). *Effects of co-operative competitively and individualistic laboratory interaction pattern on students performance in Biology* (unpublished Ph. D. thesis), Ibadan, University of Ibadan.
- Okpala FU 2005. Effectiveness integration of population/ family education in Home Economics. In: H O N Bosah, C O Obiagwu, K A Azubuike (Eds.): *Refocusing Nigerian Education for the Nascent Democracy* Onitsha: Ofona, Publishers, pp. 170-181.
- Okyere-kojo, A. (2001). *Competency Based Syllabus for Vocational and Technical Education* (unpublished Certificate in Edu. project). Ghana

- Olaitan S.O. 1996. *Vocational and Technical Education in Nigeria*. Onitsha: Noble Graphic.
- Osifeso, G.A.T. (2004). Professional obligations of Home Economics towards a better national development in the 21st Century. In: AO Noah, D Shonibere, AOjo, T Olajuwon (Eds.): *Curriculum Implementation and Professionalisation of Teaching in Nigeria*. Lagos: ATraid Associates, pp. 305-14.
- Owolabi, E. A., Peterat, L., & Arcus, M. (1991). Home Economics programmes in Oyo State secondary schools: A survey. *Journal of Consumer Studies and Home Economics*, 15: 95-105.
- Okpala FU 2005. Effectiveness integration of population/family education in Home Economics. In: H O N Bosah, C O Obiagwu, K AAzubuike (Eds.): *Refocusing Nigerian Education for the Nascent Democracy* Onitsha: Ofona, Publishers, pp. 170-181.
- Palmer, R. (2005). *Skills for work? From skills development to decent livelihoods in Ghana's rural informal economy*. Edinburgh, Scotland: Centre of African Studies, University of Edinburgh.
- Parkinson, J. (2004). *Improving secondary Technical and Vocation teaching*. London Routledge Palmer.
- Postlethwaite, T. N. & Ross, K. (1992). *Effective schools in reading. Implications for educational planners*. The Hague: IEA.
- Pudi, T. (2006). From OBE to C2005 to RNCS: Are we still on track? *African education review*. 3(3):100-112.



- Reddan, G., & Harrison, G. (2010). Restructuring the bachelor of exercise science degree to meet industry needs. *Asia-Pacific Journal of Cooperative Education*, 11(1), 13-25.
- Rutter, M. et al (1979). Fifteen Thousand Hours: Secondary schools and their effects on children. London: Open Books.
- Sayed Y, Akyeampong K. & Ampiah, J. G. (2000). *partnership and participation in whole School Development in Ghana. Education through partnership* 4(2), 40 – 51 ISSN1364 – 4203.
- Schmidt, W.H., Mcknight, C.C. and Raizen, K (1997). A splintered vision: *An investigation of U.S. science and mathematics Education*. Boston: Kluwer Academic.
- Science and Technology K-6 syllabus and support Documents, (1993). *Board of Studies: New South Wales Department of Education and training*, p.5.
- Showers, B. (1990). Aiming for superior room instruction for all children; *A comprehensive state development model remedial and special education*, 11, 35-39.
- Shulman, L.S. (1987). Knowledge and Teaching: *Foundations of the new reform. Harvard Education Review* 57(1) pp.1-22.
- Slavin, R. (1990). Cooperative learning. Inc. Rogers, & Kutnick, P. (Ed). *The social psychology of the primary School*. London: Routledge, 226 – 246.
- Smith, M.L. (1982). Benefit of Naturalistics Methods in Science Education, *Journal of Research in Science Teaching* 19 (8), 627 – 638.

- Spreen, C. A. & Valley, S. (2010). Outcomes Based Education and its contents: Learner centred pedagogy and the education crisis in South Africa. *Southern African Review of Education (SARE)*, 16(1): 39-58.
- Stern, L. (1999). Are you really testing for science literacy? *Aiming at precisely at benchananks and standards*. Paper presented at the annual meeting of the National Association for Research in science Teaching, Boston, Mass., and March 28 – 3.
- Steyn, J. C., De Klerk J. & Du Plessis, W. S. (2006). Education for Democracy. Durban Ville: Wachwas Publishers cc.
- Subahan, M.M., Lilia, H., Khalijah, M.S. & Ruhizan, M.Y. (2001). IRPA Report Non-option physics teachers: *preparation for better teaching*. The essential focus of teacher education. The Mathematics reform in California. Paper presented at the Annual Meeting of the American Educational Research Association Chicago, IL.
- Swannepoel, C. & Boyce, J. (2006). The involvement of teachers in school change: A comparison between the views of school principals in South Africa and nine other countries. *South African journal of education*. 27(1): 189-198.
- Tyson – Bernstein, H. (1988). America's textbook fiasco: *A conspiracy of good intentions*. Washington, D.C.: council for Basic education.
- Tyson, H. (1997). Overcoming structural barriers to good textbooks. *Paper prepared for and available from the National Education Goods panel*. Internet address: <http://illw.w.w.w.negp.gov/reports/Tyson.htm> Unpublished Masters Dissertation, University of Kebangsaan, Malaysia.

- Ukpore, B. A. (2006). *Fundamentals of Consumer Education*. Ibadan: Jodus Publishing Enterprise.
- UNESCO (2004) *Synthesis report: Improving access, equity and relevance in technical vocational education and training (TVET)*. Bangkok, Thailand: UNESCO.
- Vandeyer, S. & Killen, R. (2007). Educators' conceptions and practises of classroom assessment in post-apartheid South Africa. *South African Journal of Education*. 27(1): 101-115.
- Wayne, A. J., & Youngs, P. (2003). Teacher Characteristics and Student Achievement Gains: A Review. *Review of Educational Research*, 73 (1) 89-122.
- Wehrli, G., & Nyquist, J.G. (2003). TEACHING STRATEGIES/METHODOLOGIES: Based largely on, adapted from, and added to the work of). *Creating an Educational Curriculum for Learners at Any Level*. AABB Conference. Retrieved from: <http://hsc.cunm.edu/som/ted/>.
- Wenglinsky, H. (2000). *How teaching matters. Bringing the classroom back into discussions of teacher quality*. Princeton, N. J.: Policy Information Center, Educational Testing Service.
- Wenglinsky, H. (2000). *How teaching matters. Bringing the classroom back into discussions of teacher quality*. Princeton, N. J.: Policy Information Center, Educational Testing Service.
- West African Examination Council (2002 – 2005). *West Africa Examination Council: Clothing and Textile Chief Examiner's Report*. Accra: Ghana.

Wiley, D., & Yoon, B. (1995). Teacher reports of opportunity to learn: Analyses of the 1993 California Learning Assessment System. *Educational Evaluation and Policy Analysis*, 17 (3), 355-370.

World Bank (1996). *Basic Education Sector Improvement program*. Report No. 15570 – GH, Washington, The World Bank.

Yeboah, V. (1990). Educational reform in Ghana, *Address for USAID Conference on Educational Reform in Africa* – Sept. 9-15 in Lome, Togo, Accra, MOE.

Youngman, M.B. (1979). *Analyzing social and educational research Data*. London, McGraw – Hill.



## APPENDICES

### APPENDIX A

#### UNIVERSITY OF EDUCATION, WINNEBA – KUMASI CAMPUS SURVEY QUESTIONNAIRE FOR TEACHERS IN THE SHS CLOTHING AND TEXTILES DEPARTMENT

This questionnaire is designed for the purpose of collection of data for study on **Problem Associated in the Teaching/learning of Clothing and Textiles in Senior High Schools in Ghana.** A case of selected schools in Kumasi Metro and Atwima Nwabiagya (Nkawie) District, Kumasi Ashanti

#### INTRODUCTION

This research is being carried out by M Tech. student of the above mentioned university. Please, all information is for academic purpose only and will be treated with utmost confidentiality.

*Area of coverage are Personal Data, Textbooks, Tools and Materials/Equipment, Motivation, Time Adequacy and Students interest in clothing and Textile Subjects*

Please be specific and answers the questions as accurate as possible. You may not discuss any part of this questionnaire with fellow teacher before responding to the questions as your personal view point is of utmost important to the study. Thank you in advance for your contribution to this research study.

Please, make a tick [✓] in the appropriate box against **yes or no** to reflect your response.

And you may fill in the blank spaces as you deem appropriate.

**SECTION A**

**PERSONAL DATA**

1. Age:

25 -30yrs.  35-40yrs  45-50yrs  55yrs and above

2. Gender /Sex:

Male  Female

3. Highest Level of Education:

Technical School     Vocational School     Polytechnic  
 University                     others specify please.....

4. **Qualification**

Advance     HND     B.sc. Edu. /Votech. Edu.  
 B. Tech     M. Tech.

**Work Experience**

5. How long have you worked as a Teacher?

1 – 5 years     6 – 10 years     11-15 years  
 16-20 years     21-25 years     26-30 years  
 36 -40 years and above

6. School currently teaching:.....

7. Is the school:  private     public?

8. Subject(s) teaching:.....

**SECTION B**

Please, make a tick [✓] in the appropriate box against **yes, Some times or no** to reflect your response. And you may fill in the blank spaces as you deem appropriate.

**Instructional materials as a problem**

S/N	Items on instructional materials as a problem	Responses		
		Yes	Some times	No
	To what extent do you encounter these problems			
	Lack of funds for the purchase of materials			
	Lack of teachers' knowledge and skill to use the available materials			
	Lack of sufficient time to use instructional materials			
	Too many recommended texts books to read do not allow room for the use of other materials			
	Inability to school authorities to provide materials needed for learning			
	Inability of parents to buy needed materials for students			
	Inability of teachers to use instructional materials to make learning motivating			
	Lack of well-equipped Clothing and Textiles laboratories			
	Inability of teachers to improvise instructional materials			
	Irregular power supply for using electronic materials.			

**SECTION C**

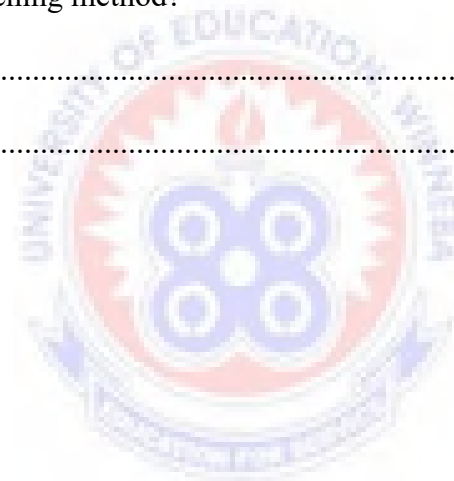
**Teaching Method as a problem to the teaching/learning of clothing and textiles**

S/N	items on teaching method as a problem	Responses
	What teaching method is use?	Activity <input type="checkbox"/> Group <input type="checkbox"/> Project <input type="checkbox"/> Discussion <input type="checkbox"/> Lecture <input type="checkbox"/>
	How do you assess the effectiveness of your method?	Very effective <input type="checkbox"/> Moderate <input type="checkbox"/> Not effective <input type="checkbox"/>

Any comments on teaching method?

.....

.....





**SECTION D**

**Students' attitudes as a problem to the teaching/learning of clothing and textiles**

Please rate using a scale of 1-5 where 5 represents strongly agree 4 represents agree, 3 represents not sure 2 represents disagree and 1 represents strongly disagree.

*Please tick [] in appropriate box below where possible.*

S/N	Items on students' attitudes as a problem	Responses				
		5	4	3	2	1
	Do not consider the study of Clothing and Textiles important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	See Clothing and Textiles career as a job for the illiterates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Consider money spent on doing Clothing and Textiles projects as a waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Do not feel confident that they will do well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Students do not have interest in the textile programme/subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Students were forced to study the subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Teacher Quality and Availability**

S/N	Items on Teacher quality and quantity	Responses				
		5	4	3	2	1
	There are inadequate Clothing and Textiles teachers in our school.					
	There are adequate Clothing and Textiles teachers but teach only theory without practical in school.					
	The teachers spend almost all the class time on the lessons with no time left for practical work.					
	The teachers mostly do mere dictation of notes					
	Teachers are not concerned that as many students as possible understand the lessons.					
	The teachers' Scolding makes learning difficult for us in the class.					
	The teachers avoid questions from students					

**Curriculum issues as a problem**

S/N	Items on curriculum issues	Responses				
		5	4	3	2	1
	The syllabus is too wide					
	The tests are always so difficult					
	Many of the topics are difficult					
	There are no excursions or fieldtrips					
	The methods of teaching are not interesting					
	The teachers attend to only those who know the subject					
	Students are not exposed to practical until the final certificate examination					
	The three year course is adequate for skills needed for self-employment.					
	The course content is adequate enough to make you self-employed or for further studies.					
	The time table allows for enough time for practical lessons.					
	There are adequate tools / equipment / machines for practical.					
	Teacher: skills and knowledge are in accordance with only theory in the curriculum					

## APPENDIX B

### UNIVERSITY OF EDUCATION, WINNEBA – KUMASI CAMPUS SURVEY QUESTIONNAIRE FOR STUDENTS IN THE SHS CLOTHING AND TEXTILES DEPARTMENT

This questionnaire is designed for the purpose of collection of data for study on **Challenges in the Teaching and learning of Clothing and Textiles in selected Senior High Schools** in Kumasi Metro and Atwima Nwabiagya (Nkawie) District of Ashanti Region, Ghana.

#### INTRODUCTION

This research is being carried out by M Tech. student of the above mentioned university. Please, all information is for academic purpose only and will be treated with utmost confidentiality.

*Area of coverage are Personal Data, Textbooks, Tools and Materials/Equipment, Motivation, Time Adequacy and Students interest in clothing and Textile Subjects*

Please be specific and answers the questions as accurate as possible. You may not discuss any part of this questionnaire with fellow teacher before responding to the questions as your personal view point is of utmost important to the study. Thank you in advance for your contribution to this research study.

Please, make a tick [✓] in the appropriate box against **yes or no** to reflect your response.

And you may fill in the blank spaces as you deem appropriate.

**SECTION A**

**Demographic Information**

1. **Age:**

16-19 years (yrs)  20 -24yrs  25yrs and above

2. **Gender /Sex:**

Male  Female

3. **Current Year**

1st  2nd  3rd

**Subject/ Course of Study**

Please rate using a scale of 1-5 where 5 represents strongly agree 4 represents agree, 3 represents not sure 2 represents disagree and 1 represents strongly disagree.

*Please tick [] in appropriate box below where possible.*

S/N	Subject/ Course of Study: Statement	Responses				
		5	4	3	2	1
4	You have a teacher in the textile programme/subject					
5	The teacher is very punctual and regular at school					
6	The teacher use methods which makes the subject very interesting					
7	The teacher only teach theory leaving the practical works					
8	The teacher uses class room hours to do his own business in the expense of the students					
	<b>Curriculum issues</b>					
9	the three year course is adequate for skills needed for self employment					

10	The course content is adequate enough to make you self employment					
11	The time table allows enough time for practical lesson					
12	You have been going on educational visits such as excursions, sightseeing and project site the					
13	There are adequate tools/equipment/machine for practical					
14	You are thought safety precaution in handling tools and machines					
15	The school supplies the right type of material for practical lesson					
16	You have other handouts, periodically and magazines for further reading on the subject					
17	You enjoy the way theory, practical lessons, designs and drawing are taught					
18	Real objects and charts are often used in the class for teaching and learning					
19	Do not consider the study of Clothing and Textiles important					
20	See Clothing and Textiles career as a job for the illiterates					
21	Consider money spent on doing Clothing and Textiles projects as a waste					
22	Do not feel confident that they will do well					
23	Have no interest in the textile programme/subject					
24	You were forced to study the subject					
25	The syllabus is too wide					

26	The tests are always so difficult					
27	Many of the topics are difficult					
28	There are no excursions or fieldtrips					

