



**EDUCATING THE DEAF IN VOCATIONAL SKILLS: SELECTED  
SCHOOLS FOR THE DEAF IN FOCUS**

By

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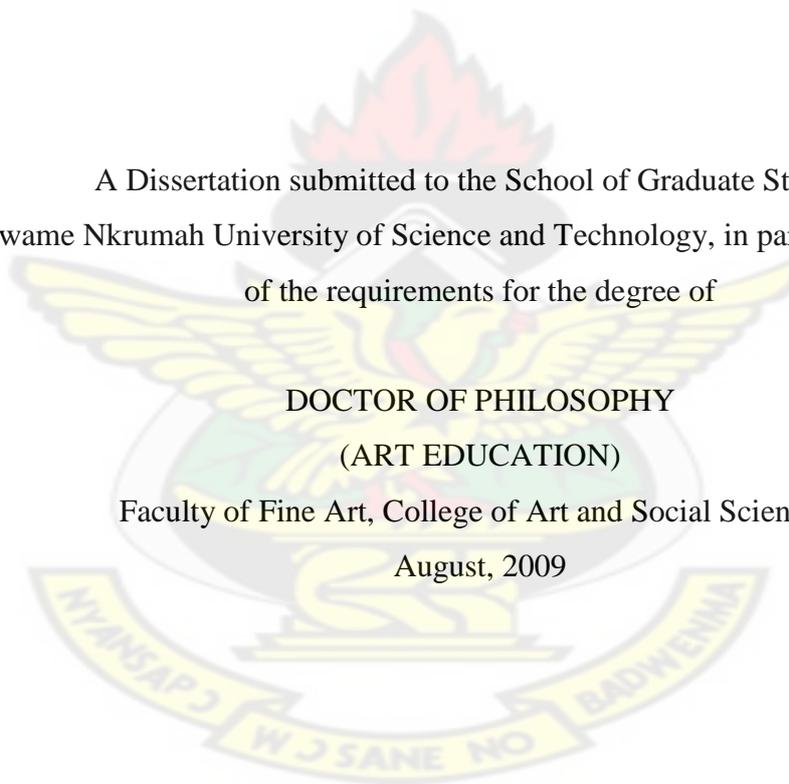
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## ABSTRACT

Unemployment is a major problem facing Ghanaian school leavers. This problem is sometimes more severe among school leavers who are deaf. This alarming trend is seen in the growing number of deaf persons turning into begging and other antisocial activities that degrade them and create negative reaction towards them by people who are not deaf. Information from Bechem Technical Institute for the Deaf in 2005 indicated that, eight out of ten students who graduate from the vocational centre in the school do not work with the vocational skills they have acquired in any gainful employment. This was linked to difficulties in the vocational education of the deaf and some social factors outside the school environment which limit the employment chances of the deaf. It was based on these that the study commenced to find out the underlining difficulties in vocational education of the deaf in Ghana and also to find out the reasons why those who undergo vocational education in schools for the deaf are not able to work with their skills either in self-employment or working in an existing venture. Books and other documents were read for information on the theoretical framework of school curriculum in Ghana, vocational education, attitudes towards the disabled with emphases on the deaf as well as empirical study relating to the topic. The study made use of qualitative research methodology in data collection, analysis and discussion. With three schools for the deaf in three regions of Ghana selected as a case study, the researcher employed observation, questionnaire and interview as data collection instruments. Data gathered were described with illustration. Photographic camera was also used to take pictures of selected artefacts made by students during the study. The main findings are that, vocational education faces multiple problems such as financing, unavailable up-to-date tools and materials and unsuitable syllabi and teaching/learning materials. Again, parental neglect, superstition and communication barriers were identified as the main problems that limit the employment chances of the deaf who have graduated with vocational skills. It is recommended that selection of teachers for vocational education in schools for the deaf should be based on adequate qualification in special need educational strategies. Moreover, stake holders in education should help in providing funds, infrastructure, suitable teaching and

learning materials and tools. There should be a vigorous public education through the mass media aimed at eliminating all forms of negative attitudes, beliefs, superstitions and discriminations that hinder the employment chances of the deaf after leaving their schools' environment.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

The future of a nation partly depends on educated and skilled citizens who are aware of their individual and collective responsibilities to contribute meaningfully to the social, economic, political, cultural and spiritual etc development of their nation and the world at large. As society changes with time, so is its educational system. These changes are sometimes triggered by factors such as the socio-politico-economic situation within which the society finds itself at a period of it's development. The changes moreover also affect either a unit or the whole system of the education, including education of the disabled. Reforming the educational system in Ghana has taken place even before independence whenever it was deemed necessary to meet technological, sociological, economical, political and cultural development needs of Ghana. Vocationalizing education in Ghana dates back to pre-colonial days (castle school days), through colonial era, to present day.

However, the making of vocational and technical skills subjects as an integral part of the school curriculum especially at the secondary level started in the mid-1960s with the release of the Dzobo Committee of Education reform report. But it was not until 1987 that a comprehensive plan was launched to make vocational and technical subjects as part of both basic and secondary school curricula. This was to reverse the decline in education of the 1960s and 1970s and to make vocationalization widely accepted by the youth as a means of economic empowerment (Baiden, 1996). The point therefore was to prepare the youth for work

and that, through vocational and technical education, students will be equipped with skills for paid and self-employment.

Other policies (both national and international) have helped shape the reforms of 1987 and 2007 from its beginning till now. Among these are the United Nation's Millennium Development Goals (MDGs) and UNESCO's Education For All (EFA) policies. The EFA policy for example explain among other aims that every child should be educated to develop his or her capabilities whether he or she been normal or infirmed (UNESCO 1994, cited in Baiden, 1996).

So, as Ghana aimed at attaining fully the goals of education as stated by both 1987 reform of education and the 1990 policy on technical and vocational education and training, the need to create chances for the disabled to acquire vocational education was considered in the Draft Report on Disability Policy (DRDP, 1996). Furthermore, for the country to achieve the MDGs and EFA objectives by 2015 as well as Ghana's own goals of education in this century, the Anamoah Committee report on education stated that, education should now focus on inculcating students with the skills and appreciation of the use of the hand as well as the mind to make students creative and production oriented (Meeting the Challenges of Education in the Twenty First Century, 2002). From this vocational education continued to play an important role as a component of general education in the education reform of 2007.

This was based on national developmental and educational philosophies and increasing knowledge that vocational education is an effective means of achieving economic growth as well as the expected outcomes of education as expressed in national educational goals. This concept, including the vocationalization of Visual

Arts for example has been strengthened to make vocational education more responsive to the employment needs of school leavers including deaf students.

It should be noted that education of the disabled in Ghana commenced with the blind in 1936 at Akuapem-Akropong in the eastern region. In 1957 a school was started for the deaf at Osu in Accra. From 1965 onwards, there was expansion in basic education for the deaf all over the country. Some of these schools started vocational education for their students, having realized their limitation in acquiring further education at the main stream secondary school after basic school.

However, problems like unemployment and begging on the part of some deaf people after schooling makes it fair to infer that the type of vocational education which some of the deaf students receive leaves more fertile grounds untouched. Vocational and technical skills education has two main thematic areas (theoretical and practical) that when effectively integrated, result in students who have creative perception, insight and creative action. These development of the individual manifest in his or her social, emotional, perceptual, physical and psychological knowledge such that the individual becomes a well-adjusted member of society, as reiterated by Lowenfeld and Brittain (1970). The education of special needs children of which the deaf is categorized in Ghana seeks to:

1. Make handicapped people self-supporting and not to become a liability to the state or his family;
2. Make the handicapped lead a normal life and to compare favourably to the normal human being. Thus to make him an individual;
3. Make the handicapped contribute economically, academically and socially to

the community in which he is born (Ayisu, 1980).

Among special schools in Ghana, schools for the deaf are more populated but provided with less resource in terms of infrastructure, finance, and personnel. To help achieve the equilibrium between normal students in the main stream school system and special needs educational for those with a form of handicap in Ghana and their contribution to national development, it is expressed in the goals stated above by (Ayisu, 1980). Therefore, establishing special schools such as Schools for the Deaf and further training of these Deaf Students in Vocational and Technical skills, at the post-basic level was to utilize the potentials and aptitudes of the deaf towards their individual and national development.

The application of the knowledge and skills gained through vocational education by the deaf student is to help them become more independent through self employment or employment in an existing industry even after secondary education; thereby reducing poverty and dependency among the deaf which leads to begging, frustration and mockery.

## **1.2 Statement of the Problem**

Education of the Deaf in Ghana falls under Special Education. Special education is defined as, “a set of instructions that is individually tailored to meet the unique needs of a child with exceptionality, taking into account the child’s individual learning strength and weakness rather than following one set of curriculum as regular education does” (Smith 1993, as cited in Avoke, 2004, p.2). Special education also involves procedures and arrangement by which physically disabled,

mentally retarded, gifted and talented children are educated either in a segregated or mainstream school system to meet their developmental and educational needs.

Despite efforts of the government, religious bodies, NGO's and individuals, towards the education of deaf children, there are problems such as unemployment and begging. Vocational and technical skills education and training have been used in special schools in Ghana and around the world and found to be an effective means of empowering individuals with disabilities in the areas of career training and employment opportunities. Vocational education in Ghanaian schools for the deaf face several problems. Preliminary survey conducted in 2006 at Bechem Technical Institute for the Deaf coupled with interaction with the then headmaster of the school revealed that eight out of ten graduands who completes vocational education in the school's vocational department will not work with their skills either on their own or in someone's industry. This was traced to some difficulties in the vocational education of the deaf and some social factors outside the schools environment. It again came out that:

1. There are multiple problems associated with vocational education of the deaf;
2. Recruiting teaching staff for vocational education was problematic; and
3. Students who graduate are not able to utilize their skills for employment purposes.

It should be noted also that the deaf is aware of his social and personal values. With the exception of their impairment that limits them in verbal communication, they function very well in the other senses and therefore capable of carrying out responsibilities as normal people do. Nkrumah, (The Mirror, December

2, 2006) reported of some deaf students who assaulted another deaf lady who was allegedly begging for alms in Accra. This indicates that hearing impaired people are becoming more aware of their dignity as individuals and the shame that some of them put them through, with begging as an example. It is also a known fact that most deaf learners are exceptionally good in creativity, serviceable and work diligently. They do not exhibit divided attention when they are executing their work. They are highly sensitive with their senses and exhibit potentials that can be effectively utilized in vocational and technical training and education for the acquisition of skills and knowledge necessary for economic empowerment as well as social well being.

But notwithstanding the above good qualities of the deaf, research has also shown that few of deaf students who completed vocational education in Ghanaian schools for the deaf and are make use of the skills they acquire from school in productive ventures, are making positive gains in their lives by contributing to the growth and well being of their families and society.

There was, therefore, the need for a comprehensive study into the training of the deaf (with selected schools for the deaf in focus), to unearth its strengths and weaknesses and find out why a greater number of deaf students who undergo vocational education in Ghanaian schools for the deaf are not able to work productively with the skills they acquire from school. And also help find some remedies to these problems such as unemployment, dropout, begging, poverty, frustrations and mockery.

### **1.3 Objectives**

1. To examine the inherent difficulties in the vocational education of the deaf.
2. To find out the problems militating against the employment needs of the deaf vocational skills graduate.
3. To provide recommendations for the improvement of vocational/Technical education in Ghanaian Schools for the deaf.

### **1.4 Hypotheses**

1. An effective vocational skills education for the deaf can help make them employable.
2. The inabilities of the deaf to utilize skills they have acquired from school are caused by inherent problems in their education and negative attitudes towards them.

### **1.5 Delimitation**

1. The study is limited to investigating the problems associated with vocational education of deaf students in selected Schools for the Deaf in Brong-Ahafo, Ashanti and Eastern Regions of Ghana.
2. Only factors that account for ineffective vocational education were looked at.
3. Only district vocational education officers, Headmasters, vocational skills teachers and students undergoing vocational skills training were selected for the study.

## 1.6 Limitations

1. The researcher's inability to communicate effectively in sign language with the students delayed data collecting procedures.
2. Very scanty literature on the subject was available in the libraries, which the researcher visited. Particularly, information on vocational education of the deaf was rare. As such, data gathered were compared and contrasted with few information from literary sources.
3. Inability to interview vocational and technical officer at the district education directorate of Akuapem North District did not help in fully getting the needed information.

## 1.7 Definition of Terms

- Deaf-blind-** Individuals who have both hearing and vision impairments that cause severe problems in communication, development and education.
- Deafness-** A degree of hearing impairment sufficient to preclude the learning of language through the auditory channel.
- Disability-** Generally referring to all individuals with some form of handicap, whether sensory, mental, physical, emotional, or whether their difficulty is as a result of social, cultural circumstances.

**Exceptionality-** A physical, health, sensory, mental, psychological, or proficiency characteristic by which an individual differs from others in their age group.

**Handicap-** A physical health, sensory, mental or psychological condition that adversely affect the performance of an individual.

**Impairment-** A total or partial malfunction or weakness in one or more of the sense organs or part of the body.

**Special Education-** Procedure and arrangements by which physically disabled, mentally retarded, gifted and talented children are educated in a segregated or mainstream school systems.

**Vocational education** – For the purpose of this study, vocational education is define as a course in educational institutions with curriculum designed to prepare the students with skills for employment in an occupation of his or her choice.

## 1.8 Abbreviations

1. B.E.C.E.- Basic Education Certificate Examination
2. B.T.I.D.- Bechem Technical Institute for the Deaf
3. CRDD - Curriculum Research and Development Division
4. DRDP- Draft Report on Disabilities Policy

5. EFA - Education For All
6. GES - Ghana Education Service
7. MDGs - Millennium Development Goals
8. MOE- Ministry of Education
9. N.V.T.I.- National Vocational Training Institute
10. NERC- Nigerian Education Research Council
11. NGOs - Non Governmental Organizations
12. P.T.A. Parent Teachers Association
13. SED - Special Education Division
14. SH/TSD- Senior High/Technical School for the Deaf
15. SNE - Special Needs Education
16. SpED- Special Education Division
17. SPSS- Statistical Package for Social Sciences
18. TVET- Technical and Vocational Education and Training
19. UNESCO- United Nations Educational Scientific and Cultural  
Organization
20. VET- Vocational Education and Training
21. WAEC- West Africa Examination Council

## **1.9 Assumptions**

1. It was assumed that skill training in vocational education was facing difficulties in its teaching and learning in Ghanaian Schools for the Deaf.
2. It was assumed that provision of adequate funding will help achieve quality vocational skills for the deaf.
3. It was assumed that, vocational education in Ghanaian Schools for the Deaf does not meet the occupational needs of deaf students after their training.
4. It was assumed that national priorities have not been fully focused on in the education of the handicapped in vocational skills as income generating activity, especially the deaf who are categorized among this group of people.
5. It was assumed that proper parental care will help the deaf vocational education graduates find work to do after school.

## **1.10 Importance of the Study.**

1. The study will help to further explore the role and contributions vocational education make to the deaf after leaving school.
2. This research will help diversify teaching and learning approaches of teachers and students in schools for the deaf through exposure to the use of integrated material and technique; approaches and also equip deaf students with employable skills in various forms of skills vocational subjects.
3. The study will help policy makers such as the GES and N.V.T.I. to be abreast with teaching and learning problems affecting deaf students.
4. The study can be used as reference material and body of knowledge for

researchers in vocational and technical skills and Special educators who may embark on a similar research.

5. The study seeks to roll back the frontiers of negative social attitudes towards the deaf.
6. It will also help the deaf to increase their contribution to national development.
7. The study can help the deaf student increase his creative abilities through the use of integrated materials, techniques and methods in vocational skills training.

### **1.11 Organization of the Rest of the Text.**

This study is presented in five chapters. The introductory chapter gives a background to the study; it discusses the statement of the problem and objectives of the study, hypothesis, the scope and limitations of the study, definition of terms, abbreviations, importance of the study and organization of chapters. Chapter two deals with the review of literature related to the topic. It makes use of secondary information such as newspapers, encyclopedia, journals, books and internet resources related to the topic.

The third chapter examines the methodology used in gathering the data. Chapter four takes a look at the analysis of the field work where major findings from the study are presented and discussed. Chapter five concludes the research by summarizing, concluding, and making recommendations based on the findings.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### 2.1 Overview

This chapter covers review of theories and empirical studies that are related to vocational and technical education. The researcher selected and reviewed documents that consider education as social agency involved in initiating the learner into his society. Therefore, definitions and concepts of education, and related studies reviewed are those that explain education as social ameliorative agent. Two main theories and how they influence the educational system in Ghana are reviewed. Also reviewed are some empirical studies that relate to this research.

#### 2.2 Theoretical review

Two theories of education namely: pragmatism and reconstructivism and how they affect on the school curriculum in Ghana's educational system are examined. Again, other educational policies such as Inclusive Education and special need education are also examined.

##### 2.2.1 Pragmatism and Reconstructivism

Quansah (2000, p. 2) opines that the choice of theories considered appropriate for Ghana's education by the CRDD of the GES are the Pragmatist and Reconstructionist theories. To the pragmatist, the meaning of an idea is best discovered when it is put into practice and the result observed (Abosi and Brookman-Amisshah 1992). Quansah (2000) further emphasizes that, the pragmatist's

emphasizes on discovery learning, project approach to learning, application of knowledge and the importance of technical and vocational education. On the theory of the Reconstructionist, Quansah (2000) and Manzoor-Ul-Hauqe (2000) explain further that society changes rapidly; as such the learner must be nurtured to be a problem solver. Both theories together emphasize that learning should be towards critical and independent thinking; such that the learner becomes capable of solving society's pressing problems. In their view, the school should help in developing the experiences that will enable the learner to lead a good life. These theories affect the development of curriculum for school education in Ghana.

### **2.2.2 The Pragmatist's/Reconstructionist's Curriculum**

The curriculum of the pragmatist's and Reconstructionist's takes into account integration of subjects. They believe that the child should draw freely from all knowledge that is relevant to what he is studying instead of separated subjects. They advocate further for the school to be an ameliorative agent for transforming the society. Therefore, the school and its activities should not be isolated from the society whose life the child learns in order to fully participate (Agyeman, 1986). Manzoor-ul-Haque (2000) and Edusei (2005) categorize three thematic areas considered by the pragmatist when developing the school curriculum; these are as follows:

- The psychological dimension relate to the interest, the problems as well as the needs of the child as the source of what should be offered to him or her. The child's needs should be what will help him or her to participate as a responsible social member.
- The sociological dimension covers what will promote harmony and welfare

of the society. The subject matter of education therefore, is the tool for solving individual and collective problems and through this the individual and his or her society are reconstructed. Therefore, the problems of the society become the basis of the curriculum; and the means of solving these problems must also be included in the curriculum.

- The logical dimension consists of the sequence of learning and arrangement of learning task. It also covers the learner's present knowledge and how best to help him find solutions to his own problems through practical approaches.

Quansah (2000) moreover asserts that linked to the theories (Pragmatism and Reconstructionism) is psychological approach to teaching and learning namely the behaviourist psychology. He further reiterates that 'it is a combination of philosophies and psychological approaches that determine the worth and quality of present day curricula' (Quansah, 2000, p. 2)

### **2.3 Education**

The reason for reviewing education from the sociological point of view (instead of any other), for this study is to reiterate Agyeman (1986) idea that education is a means of reducing society's problems. Problems facing the deaf who have undergone vocational education such as unemployment, begging, over dependency etc. are social issues which vocational education in Ghanaian schools for the deaf is supposed to help solve. Failure of this therefore should be seen as a crack within the framework of the social institution called education which includes vocational education of the deaf.

According to Curzon (1996, p.2), "education is a human activity involving the process of teaching and learning directed towards societal adaptation and

survival”. The writer is of the view that education is the handing-on of beliefs and moral standards, accumulated knowledge and skills. Farrant (1980, p. 19) examines education as an initiative agent, when he explained that “by education, society reproduces its self, passing on its main characteristics to the next generation. Through this, education keeps society alive”. Moreover, Farrant (1980) adds that, education leads out into new knowledge and experiences. The second idea is that of feeding and thereby growing and development. Akyeampong (2002) is of the view that education has two broad purposes. The first is preparing individuals for life (education about life) and the second, preparing individuals to earn a living (vocational education). The two purposes are inter-relating and sum up in producing social responsible individuals who functions well in his society.

It is a common notion by some people that the slow pace of development in Ghana can partly be blamed on the school educational system (Emmanuel M. Daily Graphic, Wednesday, August 23, 2006. P. 17). Such people and reports fail to see the problem of education as the problem of society. This is because quality education also depends on the socio-politico-cultural as well as the economic environment and other social development factors that prevail at that point in time of the society’s life. These social factors have influences on the educational system and therefore affect the products of the system including the deaf. The problems of society are what its education seeks to solve (Agyeman, 1986). One major problem of school leavers in sub-Sahara Africa (including Ghana) is unemployment (Ndala, 2006). It is imperative that the educational system becomes more responsive to solving this particular problem.

Again, education as a social initiation process is influenced by some negative social believes and behaviour such as negative attitudes towards some group of

people, and towards some kind of work. Such negative attitudes sometimes make it difficult for the school system to push back the frontiers of these beliefs, negative attitudes and behaviour of some members of the society. In most African countries including Ghana, Gambo (1980) as cited in Uwaifo (2009, p. 4), is of the view that “vocational skills training have been regarded as discipline for the academically weak. The author further reiterates that:

*There is still a strong tendency towards white-collar job as a result of low status associated with most kind of vocational and technical education. Despite government efforts to establish a sound vocational programme, less impact has been made in terms of improving the status. It was because of this cold attitude towards vocational and technical education that a matter relating to its good implementation is often ill treated, (Uwaifo, 2009, p.4).*

Visual arts which is also classified as vocational skills training in Ghanaian secondary schools, for example have suffered a negative attitude towards it and sometimes towards those who engage in it. In view of this, it is stated in the vocational education syllabus for Senior High school that, Ghana’s cultural front is faced with crises as to the arts as a means of education and national development, (Visual Art Syllabus for Secondary school, 1987). This makes the task of visual arts fighting against unemployment and at the same time advancing the arts as a means of national development clearly stated; nevertheless more difficult and complex.

### 2.3.1 Concepts of Special Education

Special education is organized for disabled and other people with special needs such as the partially sighted, the blind, physically challenged, the gifted and the talented as well as the deaf and dumb etc. Disability is a major concern for stakeholders in the fields of education, medicine and society as a whole. Interestingly, what is deemed as disability is also taking another form- from impairment, retardation, physical challenges and orthopedic malfunctioning that prevents the body from functioning as normal, to include others like obesity.

Opong (2003, p.9), citing Adima, Abang, Awandor, Ladipo, and Ogubue (1988), defined special needs education as “an area within the framework of general education that provides appropriate facilities, specialized materials and teachers with adequate training for all types of children within the nation’s education system who have unusual needs”. The writer further explained special education as the

*Education of people who have learning difficulty because of different sort of handicaps; blindness, partial sightedness, deafness, hard of hearing, mental retardation, social maladjustment, physical handicap, etc, due to circumstances of birth, inheritance, social position, mental and physical health pattern or accident in later life” Adima, et al., (1988).*

Indeed the second definition embraces all categories of people with various handicaps even outside the normal school system. Smith (1993) as cited in Avoke (2004, p.2) also is of the view that, special education is a set of instructions that is individually tailored to meet the unique needs of a child with exceptionality taking into account the child’s individual learning strength and weakness rather than

following one set of curriculum as regular education does. Furthermore citing Hallahan and Kaufman (1987) he explains special education as:

*Specially designed education which meets the unique needs of an exceptional child. Meeting the unique needs of children involves the use of special materials, teaching techniques, equipment and other facilities which are vital to their survival. Specific requirements include materials in large print or Braille for those with visual impairment or blindness, hearing aids or manual communication for those with hearing impairment and wheelchair for those with physical disability (Avoke, 2004, p.2).*

Smith (1993) and Hallahan and Kaufman (1987) concepts make mention of **“unique needs of an exceptional child or a child with exceptionality”**. Avoke (1997, p.7) makes these semantic clearer when he stated that:

*Exceptional children are any group of children who differ extensively from what is considered normal in other children in a number of ways such as mental retardation, learning disability, emotional disorders or problems, speech impairment, hearing impairment or visual impairment or being very talented and intelligent.*

Avoke (2004, p. 3) again, cited the 1981 Educational Act of Britain States among other things that;

*a child has special educational needs if he or she has a learning difficulty which calls for special educational provision to be made for him or her. He or she has a learning difficulty if he or she has a significant greater difficulty than majority of children of his or her age or has a disability which prevents or hinders her from making use of educational facilities generally provided in schools within his area.*

Special education is defined as the direct instructional activities or special learning experiences designed primarily for students identified as having certain disabling exceptionalities in one or more aspects of the cognitive process or as being under achievers in relation to general or model of their overall abilities, ([http// www.usoe.k12.ut.us](http://www.usoe.k12.ut.us) ). To sum up, special education deals with making provisions for or adapting to the distinct needs of children or learners who have either disabilities or extreme intelligence.

### **2.3.2 Special Schools in Ghana**

Special education and the setting up of special schools date back to the colonial days. Special schools are institutions that are organised to provide for the unique educational needs of special or exceptional children or learners. In Ghana, there are three categories of such schools; those for the blind, those for learners with hearing impairments, and those for the mentally retarded. It has been recorded that the education of the disabled in a school system started with the blind. Mention is made of Rev. Hunter who started some form of education for two blind boys in 1936. However, this school was officially opened in 1946 at Akropong Akuapem, in the Eastern Region.

There are laudable objectives set for educating the disabled in Ghana. Ocloo, et al., (2002) assert that schools for the disabled are set up primarily to educate in order to enable them live as normal as possible. Their education is therefore meant to socialise and integrate them into the world of the able-bodied persons in order to foster mutual understanding between the non-disabled and the disabled individuals. They further reiterate that the schools strive to inculcate in these children both

cognitive and vocational skills which can be marketable for their independent livelihood and sustenance (Ocloo, et al., 2002).

### 2.3.3 School for the Deaf/Hearing Impaired

In 1957, the Presbyterian Church started a school at Osu (Accra) through the initiative of an American evangelist, Andrew Foster. Within a period of twenty-three years (1965-1988), a number of schools for the deaf had sprung up all over Ghana (Ayisi, 1981). Presently, the following (as shown in table 2.1 below) are schools for the deaf and other hearing impaired persons are cited in (Ocloo, et al., 2002, pp. 9 and 10).

**Table 2.1: Schools for the Deaf in Ghana.**

School	Year of Establishment	Location
Nchaban school for the Deaf	1971	Nchaban (Western Region)
Cape coast School for the Deaf	1970	Cape Coast(Central Region)
Koforidua Unit School for the Deaf	1975	Koforidua (Eastern Region)
Demonstrational School for the Deaf	1964	Manpong-Akuapem (Eastern Region)
Kibi Unit School for the Deaf	1975	Kibi (Eastern Region)
<b>Mampong Senior High/Technical School for the Deaf</b>	<b>1975</b>	<b>Akwuapem-Manpong (Eastern Region)</b>
State School for the Deaf	1965	Accra (Greater Accra Region)
<b>Ashanti School for the Deaf</b>	<b>1977</b>	<b>Jamasi (Ashanti Region)</b>
Volta School for the Deaf	1971	Hohoe (Volta Region)
Savelugu School for Deaf	1978	Savelugu (Northern Region)
School for the Deaf		Wa (Upper West Region)
<b>Bechem Technical Institute for the Deaf</b>	<b>1969</b>	<b>Bechem (Brong-Ahafo Region)</b>
School for the Deaf	1996	Abeogo (Upper East Region)

*Highlighted schools are where this research took place.*

Meanwhile, opponents against institutionalization of people with disabilities argue that to exclude people with disabilities from society is to compound the disadvantages that the individuals already have. To the sociologist, institutionalization of the disabled adversely stunts and distorts their development, (Avoke, 2005). The practice of placing the deaf into segregated schools in Ghana is opposite the sociologist's view on institutionalization of the disabled and also against international policy on inclusive education.

#### **2.3.4 Teaching Personnel for the Disabled.**

Teachers play an important role in any educational system. The quality of the teaching staff also goes a long way to help achieve quality education. "Teacher education in Ghana is a type of education and training given to and acquired by an individual to make him or her academically proficient and competent as a teacher," (Meeting the Challenges of Education in the Twenty First Century, 2002 p. 92). Teacher education is set up to carry out the preparation of committed, competent, dedicated and service-oriented teachers. The aims for training the teacher also ensure that at the end, the teacher possesses the following qualities:

1. Apply, extend and synthesize various forms of knowledge;
2. Develop attitudes, values and dispositions that create a conducive environment for quality teaching and learning in school;
3. Facilitate learning and motivate individual learners to fully realize their potentials; and
4. Adequately prepare learners to participate fully in the development of the country.

But like other sectors of Ghana's educational system, there are several challenges that hinder effective preparation of adequate quantity of teachers for the education delivery process. One unit that is normally affected most in the form of inadequate teaching staff is the special education unit. According to Casely-Hayford and Lynch (2003, p.14), "majority of graduate special needs teachers pursuing diploma and degree courses in special education in U.E.W., go back to the mainstream schools or find their way to the Senior High level pursuing their second area of concentration or leave the teaching profession all together". Casely-Hayford and Lynch (2003, p. 15) are of the view that "most disaffected teachers do not want to teach children with SEN but simply wish to obtain a degree or diploma when they enter UEW". This situation couples with:

- Poor remuneration;
- New career choices;
- Pressure from the family;
- Lack of job satisfaction; and
- Frustration by administrators.

These account for the reason why most teachers feel reluctant to accept posting to special schools. As identified by Dery (1995) as cited in Casely-Hayford and Lynch (2003), these factors account for scarce teaching staff in special schools in general and schools for the deaf in particular. Also relating to the problem of scarce teaching staff is qualification of those who are in active service in the schools for the deaf. Ndala (2006) assert that in sub-Sahara Africa only slightly more than 50 percent of secondary school teachers have the proper qualifications, which is insufficient for the achievement of quality.

## 2.4 Negative Attitudes towards the Disabled.

Throughout history, people with disabilities have been subjected to several forms of cruel acts. In Ghana, some communities which have mostly strong religious beliefs attribute disability or exceptionality to punishment from the gods of the people as a result of the sins or evil deeds of the individual. Such people with disability are banished or if lucky, put into an institution or worse, killed during early years of their life. Avoke (2005) examines models of disability (magical/religious, psychological, medical and social models) that adversely affect the severity of disability. Explaining the social model of disability, Avoke (2005, p. 4) indicates that, “It is the society that largely create barriers for the disabled; and that the difficulties of living as a disabled person are due to discrimination and prejudices, rather than impairment”. This model simply explains that, it is social restrictions, attitudes, superstitions, beliefs and stereotypes that compound the severity of a disable person but not necessarily his or her impairment or retardation. He is of the view that the social system creates a barrier to the disable’s participation as social member. This view is also expressed by Nuemann (1989, p. 2) when he said that:

*Based on the fact that prejudices and negative attitudes towards the disabled are not only common to our culture, but a worldwide problem. Dispositions of the mind transmitted by society can only be considered as one causative factor amongst many for these undesirable prejudices and attitude.*

Sadow (1994) as cited in Avoke (2005) explained that under the religious/magical model for example, attitudes towards persons with disabilities turn to be influenced by stereotype and superstition caused by unsophisticated view or fatalistic about events of life. He further reiterated that though many Ghanaian communities may turn to attribute disability to punishment from the gods, not all the

people may have such beliefs because of sufficient scientific explanation of disability. These factors sometimes directly or indirectly affect vocational education of the deaf in Ghana, placing them at a disadvantage in employment and social life.

## **2.5 Vocational Education (Concepts and Definitions)**

Vocational education as a concept has mostly been discussed concurrently with other concepts such as career and technical education. This is due to the relationship between the three concepts. However, career education unlike vocational education, deals with preparation of individual for diverse roles they will play throughout life (Sarpong, 2000). Vocational education, therefore, forms an integral part of career education. Vocational education is the training given to individuals (students) to prepare them for particular careers or jobs. In this context, career has been applied in its narrow sense to mean a job. Wood (1993) then defines vocational education as organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment.

Clark and Kolstoe (1990) refer to career education as “a concept parallel vocational and special needs education”. Career education and vocational education are inseparable. However, to Sarpong (2000), these two are often confused whereas vocational education focuses exclusively on preparation for employment, career education attempts to prepare students for all potential roles they may fulfill in life. Vocational training is defined by UNESCO (1974, p. 4) as the “type of education designed to prepare skilled personnel at the lower levels of qualification for groups of occupations, trades or jobs”.

The World Book Encyclopedia (2001, p. 434) emphasizes that vocational education,

*Prepares people for an occupation that does not require a bachelor's degree. It is mostly designed to meet the social needs for works and to give students more options in education. This type of education forms part of career education, which helps students choose and prepare for career.*

Theorists in vocational training have explained that its aim is to improve the worker's general culture as well as to further his or her technical training. Vocational education or Vocational Education and Training (VET), prepares learners for careers that are based on manual or practical activities, traditionally non-academic and directly related to a specific trade, occupation or vocation, hence the term, in which the learner participates. It is sometimes referred to as technical education, as the learner directly develops expertise in a particular group of techniques or technology. Generally, vocation and career are used interchangeably. Vocational education might be contrasted with education in a usually broader scientific field, which might concentrate on theory and abstract conceptual knowledge, characteristic of tertiary education. Vocational education can be at the secondary or post-secondary level and can interact with an apprenticeship system or internship.

Vocational education as defined by the ministries of employment and social welfare and Education in Ghana and cited in Crentsil (2004, p. 19), stipulates that:

*Vocational education is the type of education designed to prepare skilled personnel at lower levels of qualification for one or a group of occupations, grades or jobs- vocational education includes general education, practical training for the development of skills, required by chosen occupations and related theory.*

He further argues that, vocational training as “referring to those aspects of the educational process involved in addition to general education and the acquisition of practical skills, attitudes and understanding in various sectors of economic and social life”. He is of the view that the definition contains two basic ideas. These are:

1. “Acquisition of knowledge through practical experience;
2. Acquisition of knowledge through theory and description” (Crentsil, 2004, p. 19).

In view of the current concept of vocational education, and the fact that self initiative is desirable, there is the entrepreneurial skill development factor of vocational education that combines theory and practice and also plays a major role in the individual’s employability, self development and societal growth as a whole. But this only becomes evident when the learner is able to utilize theory and practice in the world of work. He however ascertains that, there should be a balance between theory and practice. This implies that theory and practice should be an integral component in an effective vocational education. A lack of the interplay of the two produces trainees who cannot fit into industries because of their inadequate practical training on one hand, and those who are vested in practical knowledge but lack competency development and looks forward to others for innovative ideas.

This is also supported by Kenneth (1971, p. 44) when he said that special education as “connotes trade education comprise a wide field than *vocationalism*; correspondingly general education extends beyond the limits of merely literary preoccupation”. This comparison clearly shows that both practice and theory are interwoven in vocational education and very important in educating the individual, being normal or infrared.

Perkins (1998) as cited in Asante-kyei (2006) offers another explanation of the concept of vocational education. To him vocational education affords learners the chance to acquire academic and technical knowledge and skills that prepare them for further education or career. This definition explains that vocational education serves as a means to an end but may not be the end itself. This means that, learners acquire a fundamental knowledge and skills necessary for higher education and training in post secondary institutions or workplace itself, by focusing on their present or future employment needs. He further reiterates that, the implication of the above for Visual Arts for example is to lay good foundation for student to pursue further knowledge and skills acquisition in higher educational levels.

### **2.5.1 Vocational and Technical Education**

Human resource development in the fields of related sciences and technology is very essential for national development. A country that has expertise in these disciplines and applies them in the productive sectors of its economy can achieve a great deal of economic and social prosperity for her citizens. The system of education that has the potential of making the country achieve middle income status is vocational and technical education (Kyeampong, 2002). There are two main factors implied in this area of education ('Vocational education' and Technical education'). For this study, the concept of vocationalization is used to include all instructional areas which are labeled as "vocational" or "technical" in the curriculum of GES and N.V.T.I.

### **2.5.2 Views on ‘Technical’ and ‘Vocational’ Education and Training**

Baiden (1996) defines the term ‘technical’ as the practical use of machine methods etc in use of science and industry; the skills needed for a particular job, sports, art etc. On ‘vocational’ education, Baiden (1996. p. 82) further explains that it is the “skills and knowledge that one needs to have to do a particular job”. UNESCO (1974) distinguishes technical education as type of education designed at upper secondary and lower tertiary levels to prepare middle level personnel such as technical and middle management staff, and at the university level, to prepare engineers and technologists for higher management positions. Technical education, therefore, includes secondary education, theoretical, science and technical studies and related skills training.

Vocational training on the other hand is basically that type of education designed to prepare skilled personnel at the lower levels, for groups of occupations, trades or jobs. Vocational education includes general education, practical training for the development of skills required by chosen occupation in related theory. It puts premium on practical training and is designed to prepare skilled manpower of the lower levels as against Technical manpower which involves theoretical and practical education (Baiden, 1996). Moreover, for the purpose of this thesis, the concept and definition of vocational education have been looked at below.

On his part, Akyeampong (2002, p.2) believes that, “Vocational and technical education are fraught with definitional and conceptual inconsistencies that have resulted in what Strong (1990) aptly describes as an “identity crisis”. He is of the view that the term ‘vocational’ and ‘technical’ take on different meaning not only across countries but also within the same country. Using Ghana education system as an example, Akyeampong (2002, p.2) explains that:

*Vocational” is a label for those instructional areas that consist of visual arts (mainly the handicrafts) and home economics subjects. The specific subjects so labeled include leatherwork, textiles, sculpture, graphic design, basketry, food and nutrition, and management in living. The label “technical” is used for trade, industrial, engineering-related subjects such as technical drawing, applied electricity, auto mechanics metalwork, and woodwork.*

These above mentioned subjects are all part of the subjects offered in the selected schools for the deaf for this study with the exception of applied electricity and auto mechanics.

### **3.5.3. History of Vocational and Technical Education in Ghana.**

In dealing with the discussion of related literature on vocational and technical skill education for this research, it was necessary to begin with a brief account of how vocational education and technical skills training started in the country. In 1844, the Basel Missionaries introduced craft and simple farming techniques in their elementary schools at the Christianburg Castle, Osu and Abokobi respectively (McWilliam and Kwamena Poh 1978; and Edusei 1991). Boys were taught book binding, lock and blacksmithing, bricklaying and carpentry so that they could undertake repair works for the missionaries since there were no masons and carpenters who met the taste of the missionaries. On the other hand, the girls were taught cookery, needle work and home management skills by the wives of the missionaries. The Wesleyan did the same in Cape Coast and its environs around the same period.

No significant improvement came in this field of education after the establishment of the Accra Technical School until the early 1920s when Governor

Gordon Guggisberg established Trade (technical) Schools at Asuansi, Kibi, Yendi and Mampong- Ashanti, to offer courses in masonry, carpentry, metalwork and woodwork. The Yendi School was later moved to Tamale while that at Kibi could not survive the trade slump of the 1930s. This followed the release of the British government's reassessing of the status of education in its colonial territories in 1925 (Fafunwa, 1971).

The Accelerated Development Plan for Education in 1951 led to the establishment of the Kumasi College of Technology (now Kwame Nkrumah University of Science and Technology- KNUST) in 1952 to provide courses in technological and vocational training to students. More institutions for vocation skills training were opened in Accra, Kumasi, Takoradi, Takwa and Kpando during this era.

This attempt to teach vocational skills to school children included children with disabilities. Vocational skills training were however de-emphasized at the elementary levels since those schools were set up purposely to offer basic education. With the introduction of the 1987 Educational Reform, Pre-vocational training programs were introduced. Subjects such as technical drawing, vocational skills and basic agricultural science were taught in schools (Asante-Kyei, 2006).

Furthermore, the first step to offer vocational education to the disabled in Ghana was in 1951 at Akropong School for the blind where typing was taught to the blind students (Ocloo, et al., 2000). In 1954, vocational and craft courses were fully integrated into the schools' program. In the case of the deaf and hearing impaired, there is Senior High Technical Schools for the deaf established then at Mampong-Akuapem and a vocational centre at Bechem School for the Deaf to cater for the deaf graduates from the basic level. Other schools such as the Ashanti School for the Deaf

at Jamasi and Wa School for the Deaf provide vocational skills training for their students.

In Ghana, the 1992 constitution and 1990 policy on technical and vocational education and training took into account the need to create avenues for the disabled to acquire vocational and technical skills (DRDP, 1996). This is further strengthened by the Act 715 of 2006. The DRDP (1996) specifically states that the disabled individual should have access to vocational guidance and vocational training programmes provided for all Ghanaian citizens. The following recommendations in the (DRDP, 1996) are worth mentioned here:

- a) Since it is not economically possible to establish special technical/vocational schools for each of the categories of children with disabilities, efforts should be made to integrate suitable disabled persons into the existing regular vocational/technical institutions.
- b) Special programs to suit each category of disability should be designed.
- c) Technical/Vocational Teacher Training Institutions should incorporate special education in their curricula.
- d) In order to extend vocational training to as many individuals with disabilities as possible, it should be organized as a collaborative responsibility of the several government agencies implementing similar programs (Draft Report on Disabilities Policy, 1996, p. 22).

Not until the full implementation of the Act 715 of the Republic of Ghana (2006), the education of the disabled in general and vocational skills training for people with disabilities in particular would continue in the present ad-hoc nature.

#### **2.5.4 Vocationalization of Education in Ghana (1987 and 2007 Education Reforms)**

Akyeampong (2002, p. 2) opines that the “universally accepted purpose of vocational education in general has been the provision of occupational skills for employment”. He also continues to emphasize that vocational education can offer to learners educational options corresponding to their needs including employment training and preparation for higher education. These are done at the secondary levels of education where preparation for employment is not the focus of vocational education under GES curriculum but rather preparation for higher vocational skills training at the tertiary level (Akyeampong, 2002).

On his part, Baiden (1996, p. 81) states that in Ghana,

*The purpose of technical and vocational education at the non-degree level is to provide young men and women with skills training (in addition to general education) in order to enable them fulfill the country's technical manpower needs including self-employment up to middle level in the field of industry, business, and agriculture.*

He further outlined nine main objectives of vocational studies. To him, the vocationalization of curriculum in education seeks to:

1. Expose pupils 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 and so give them equal opportunity to choose their future careers in either the technical or general field;
2. Equip students who have completed Basic Education with those occupational skills that will enable them enter into gainful employment in industry and commerce;
3. Equip students with the relevant productive and entrepreneurial skills that

- will prepare them for self-employment;
4. To provide trained human resources in science, technology and commerce, matching supply of skilled labour with demand;
  5. Provide personnel with the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development while at the same time paying attention to environmental issues;
  6. Give training and impart the necessary knowledge and skills to trained manpower leading to the provision of operatives, artisans, craftsmen, technicians, and other middle level technical personnel;
  7. Enable the youth have an intelligent understanding of the increasing complexity of science and technology through systematic exposure to modern technology;
  8. To encourage the increased participation of women in education, training, and employment in the technical field; and
  9. Provide a sound foundation for further education for those students who may wish to continue their education later in the context of life long education.

Baiden (1996) continues to explain that, vocational studies in Ghana's mainstream education comprise Visual Arts and Home Economics subjects. The Visual Arts consist of the handicrafts, (specifically sculpture, leatherwork, graphic design and basketry).

#### **2.5.5 Vocational Education Curriculum for Second Cycle Schools in Ghana.**

Under the 1987 and 2007 Education Reforms, the government of Ghana emphasized on vocationalization of education in Ghana. That is, the introduction of vocational skills into the curriculum of schools. Although there are clearly stated

aims for vocational education in Ghana under various educational reforms, the education review report released in 2002 by the Anamuah Committee provides the stringboard on which current aims of vocational education could be examined. These aims as stated in Anamuah Committee's Report (2002), are not much different from that stated by Fafunwa (1971, p. 51), as listed among the following thematic areas:

1. Think effectively;
2. Make relevant judgment;
3. Develop economic efficiency both as consumer and producer of goods;
4. Acquire some vocational skills;
5. Develop scientific attitude towards problems solving;
6. Function effectively as a social member.

Accordingly, the main goal of the programme is to produce graduates who are able to stand on their own feet after completing their secondary school, be it through existing jobs or by starting up their own small-scale business that can sustain them (Ndala, 2006). However, these purposes as stated above can be achieved if only the right implementations are done. In doing so, the curriculum in which the process of education is explained should be looked at. This is because the quality of any educational system intended for national and individual development as far as school education is concerned, is achieved through the quality of the curriculum (both written and Unwritten) as well as other educational inputs such as the relevant teaching and learning materials, quality teaching personnel, quality supervision and evaluation.

Through it, the curriculum becomes the blueprint for achieving the goals set for education. Curriculum as defined by Taba (1962, p. 2), states that, it "contains a statement of aims and specific objectives; it either implies or manifests certain

patterns of learning and teaching whether because the activities demand them or because the content of organization requires them. Finally, it includes a programme of evaluation of the outcome. Moreover, Bregman and Bryner (2003, p.3) opine that a “good curriculum for secondary education should be able to provide for the learner, all the necessary educational services regardless of their geographical location, gender, learning abilities, or socio-economic status”.

Comparing Bregman and Bryner (2003) definition to that of Taba (1962), it becomes clearer that, the curriculum does not only state what should be taught in the school alone but also, it directs how education authority and should make available to the learner the necessary services required to fully achieve the set goals, irrespective of their location, inabilities or socio-economic status. Furthermore, the curriculum is translated into subject syllabi that show how these subjects should be taught including its content, method of instruction and evaluation.

Moreover, it is envisaged that the vocational education subjects will among other aims, provide the learner with the opportunity to acquire vocational skills that will serve as foundation for employment or for advance training in a tertiary institution. The syllabuses seek to help students acquire the following qualities:

1. Skills and attitude associated with their chosen vocation;
2. Develop entrepreneurial skills that will be useful for establishing small-scale industries;
3. Develop the capacity for handling and using tools and material for production;
4. Develop creative way for producing and judging the quality of products

(Asante-Kyei, 2006).

### **2.5.6 Visual Art as Vocational Skill training in Ghanaian School Curriculum.**

Attempts to define Art have always in many cases landed in confusion about what the subject truly means. Whiles some definitions have succeeded in making the meaning of Art more understandable and in some cases more concise depending on the aspect of the subject under discussion, others on the other hand turn to give more ambiguity about the concept of Art. The role of Art and Art related activities form an integral part of Ghanaian societal life. The services of artists are needed in industries, trade, education, agriculture, politics, sciences and technology, entertainment etc. Education in both performing and Visual Arts prepares learners with skills, knowledge and attitudes in their development as persons to generate employment through Art related activities. The concept of Art and its implication for vocational education is discussed at this point.

As stated above, Visual Arts became a major component in the 1987 and 2007 Education Reforms. As a component of school curriculum, Visual Arts can be grouped into two main categories namely ‘education through art and education in art’. While education through art connotes the use of art as a means of carrying out the activities involved in education, education in art implies the acquisition of skills in art related disciplines for employment purpose. In Ghana, Baffoe (2001) argues that,

*It is important for the country to rapidly open up opportunities for work. It has become equally important for individuals to learn trades and vocations so that they can seek employment as trained persons, or can otherwise set up their own businesses, earn an income, employ other persons and pay them wages and salaries, it is the emphasis put on the "spirit of enterprise" and the acquisition of vocational skills in the educational reforms as measures for providing trained human resource for socio-economic*

*development that underscore the importance of the subject of  
“Vocational skills.*

It is envisaged that Visual Art subjects will among other things provide students the opportunity to acquire vocational skills that will serve as a foundation for advanced training in technical/vocational institutes or a pay job as in the case of those who do not get the chance to pursue further skills training in a tertiary institution.

The rationale for Visual Arts education can be looked at in the context of objectives for general education which include the follows:

1. “To foster the personal development of each individual;
2. To transmit the cultural heritage; and
3. To improve society” (<http://www.DBAE.com>).

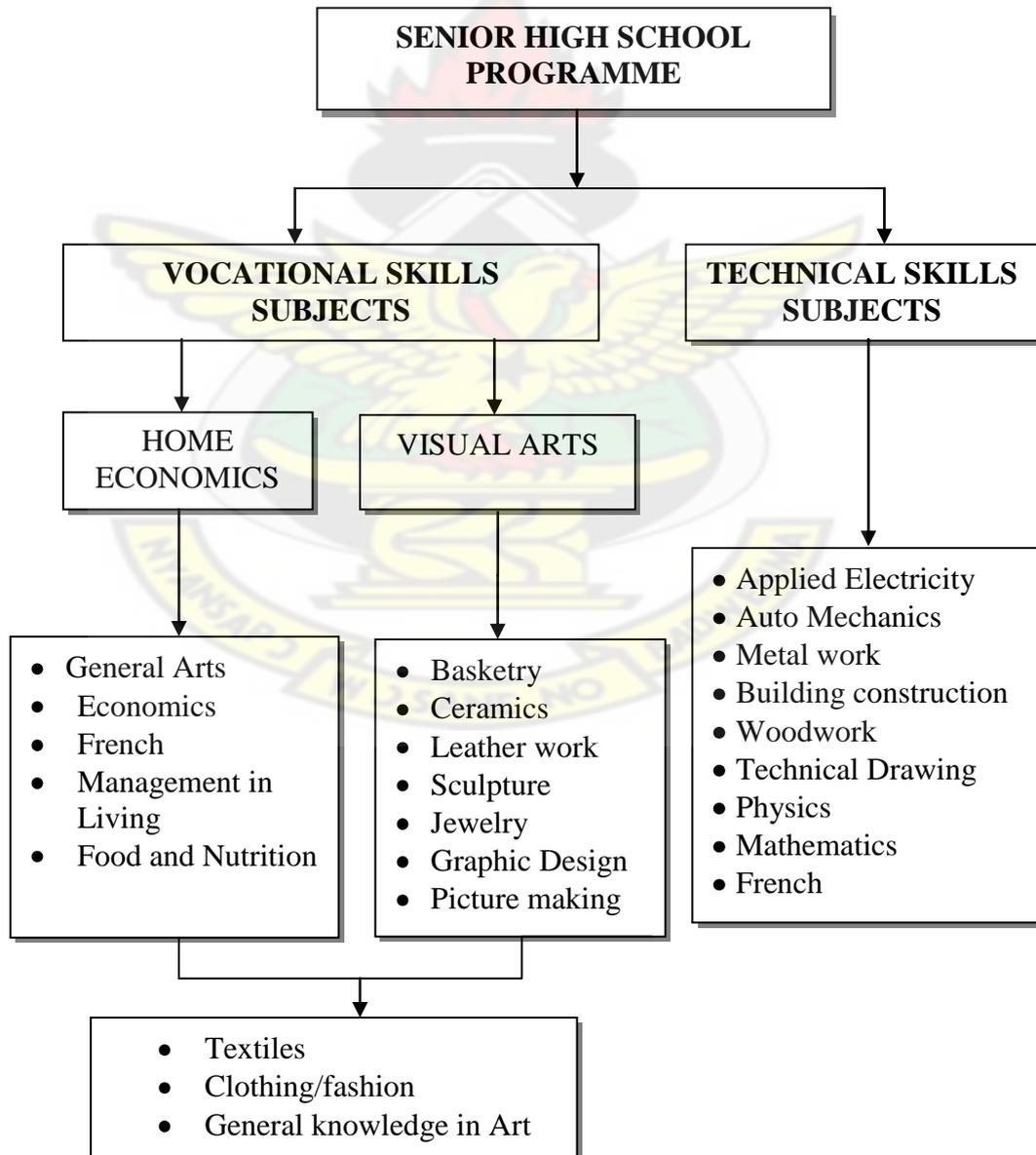
The document explains further that, the existence of Visual Arts subjects in the curriculum of schools is to help realize the aims of general education. For instance, when teachers help students to develop their creative abilities, they are helping them to achieve their personal development. Through the study of Art History, the cultural heritage of the society is being transmitted. When students acquire artistic skills, it helps to improve the society in which they live.

A review of various General Knowledge in Art textbook for Senior High Schools for instance shows that, the aims of Visual Arts are consistent with general education. Boamah (2000) found out that Visual Arts at the secondary level can serve as the creative base for small-scale industry creation in Ghana. In view of the current trend of Ghana’s educational system which is towards economic empowerment through skills, competencies and innovation qualities, Visual Art subjects which are also essential component of vocational education programme expose students to art related careers or vocations such as graphic/textile designers,

sculpture, pottery and ceramics, basketry, leatherwork, picture making etc. The rationale for Visual Arts in Ghana includes the following:

- To foster creativity in students;
- To equip students with problem solving skills for national development;
- To reflect the cultural practices of the people;
- To make use of available local raw materials; and
- To obtain a holistic development of students.

A structure of the Senior High School Vocational education programme is in fig. 2.1



**Fig. 2.1: Structure of the Senior High School Vocational and Technical Skills Programmes in Ghana.**

**2.6 Empirical Study**

**2.6.1 Vocational Training for the Hearing Impaired in Ghana.**

The Draft Policy on Disabled in Ghana also mentioned technical and vocational education and argued that vocational education alone “generally limits and restricts one’s opportunities for employment while technical training offers opportunities to their beneficiaries” (DRDP 1996, p.21).

According to Sarpong (2000), if there are no institutions of vocational training and guidance in a country or area, it is to be recommended that, schools for the hearing impaired individuals take up this important task. Earlier, the John Wilson committee report on 16<sup>th</sup> October, 1959 gave the government of Ghana the charge as soon as possible to assume complete responsibility for training and rehabilitation for the blind, deaf and orthopedically impaired and other handicapped persons.

Sarpong (2000, p. 4) further said that vocational training must be an integral part of the total delivery services to the special need of girls and boys who are hearing impaired. He further states that “without education and right guidance, the talents and personalities possessed by the disabled would be locked up and the society would have been poorer for it”. Kaffman (1986) on his part says that, in vocational training it is important to give each child an opportunity to try as many different kinds of stronger aptitudes and interests and to encourage him or her to develop these in adulthood. He further stated that, the major educational consideration is to help each child to become as independent as possible in basic academic proficiency and to prepare the child for the educational or occupational

skills that will enable him or her enjoy basic human rights and also contribute functionally as a member of the society.

According to Ayensu (1989), generally hearing impaired individuals can lead perfect normal lives with their families if communication is not a difficulty. Moreover, he further indicates that evidence shows that the hearing impaired individual's inability to communicate freely with others limits their choices of profession. However, countries that give early education and vocational skills training to their hearing impaired individuals their communication problems have made some increases in their employment opportunities. As a result, the deaf should be given the opportunity to learn to cope with practical work such as gardening, cooking, handicraft, and other craft relating activities.

Moreover, in Ghana, there are some institutions that run vocational training courses for deaf students who have completed the Junior High School. They are Akuapem-Mampong Senior High/Technical School for the Deaf and Bechem Technical Institute for the Deaf. Also, some special schools including Ashanti School for the Deaf embark on vocational training along side other academic subjects.

### **2.6.2 Vocational Training for the Hearing Impaired in Kenya.**

According to Ondicho (1988) as cited in Puakyiene (1996), there are four schools in Kenya that offer one year pre-vocational subject to boys and girls who have gone through eight year education programme. At the secondary level, there are three Vocational/Technical institutes for the hearing impaired. That is, one for girls and two for boys. For example in the vocational school at Munias in western Kenya, the training programme for the hearing impaired has multiple purposes, mainly some

theory and practical skills, with the students taking recognized government trade examinations.

Students are taken from various parts of the country. These vocational institutes offer a range of courses in dress making, machine knitting, copy typing, house wifery and art and craft for girls. The boys are taught woodwork, shoe making, metalwork, manual art and tailoring. All these courses last for three years after which they take the trade test.

Students who become successful are awarded certificates and some of the trainees are employed into the government and private sectors while others establish their own workshops.

### **2.6.3 Vocational Training for the Hearing Impaired in Britain**

Hearing impaired individuals between the ages of sixteen and eighteen years are given training in trades such as carpentry, woodwork, metalwork for boys and baking cake decorations, home management, needlework and child care for girls by the nation (Watson, 1967).

Under the National Assistance Act, Local government authorities have both the power and the responsibility to provide welfare services for the hearing impaired either directly through the Local Voluntary Mission or institutions for the hearing impaired. Employment problems in either cases are usually dealt with in consultation with the Local Disablement Rehabilitation Officer and any hearing impaired person can be registered as disabled under the Disabled Persons (Employment) Act and then becomes eligible for inclusion in the quota of disabled people which employers are obliged to take on their staff (Philip and Van Italies, 1963).

The practice in Britain is in a way similar to what takes place in Ghana, where the institutions train the hearing impaired youth and leave the placement of jobs to the Social Welfare Department, an institution which has no relationship with the trainers. Vocational planning and training for the hearing impaired should take into consideration the individual's aptitude, since a successful vocational adjustment is a vital integrative factor in the lives of most people.

#### **2.6.4 Vocational Training for the Hearing Impaired in America.**

There are three main types of educational provision for hearing impaired children in America. These are state institutions, day schools or classes and denominational and private schools. There are well equipped workshops in all these schools where printing, carpentry, baking, metalwork, art, beauty culture for boys, hair dressing and needle work for girls are taught. Though the education of the hearing impaired differs from state to state in America in general term, it may be stated that, the aim of the state institution is vocational in nature (Watson, 1967).

Developing vocational training at the higher education level, the Federal Government founded the National Technical Institute for the Deaf in Rochester, New York in 1967, for the purpose of providing opportunities to hearing impaired adolescents and adults for training in technical and vocational pursuits.

Again, a federal support project was started in 1968/69 to establish three post-secondary programmes for hearing handicapped students in community colleges at Delgado Vocational Technical Junior College, New Orleans, Louisiana, Seattle Community College Seattle, Washington, and St. Paul Technical Vocation Institute, St. Paul Minnesota. Career objectives in these community colleges selected for the hearing impaired students included: Graphic Art, Sheet –metal working,

welding and body repair, food services, machine-tool processing, production arts and electronics. These post secondary developments occurred because the hearing impaired young adults were more generally unemployed than were the general population and obtained inferior jobs (Watson, 1967, pp.223-227).

### **2.6.5 The lives of Selected Hearing Impaired Individuals.**

Through established institutions for the deaf, there have been some achievements made by producing some personalities whose lives can be a motivation to others who have some impairment. It is therefore right to take a brief look at some of these individuals as a motivation for disabled students in general and deaf students in particular.

Through proper education and guidance, some personalities such as Franklin D. Roosevelt, Steve Wonder, Beethoven and Helen Keller have been able to contribute immensely to the development of their various countries and the world at large. According to Ayensu (1989) in Ghana, through school education, personalities such as Mr, Abrokwah Brown, the head of the Rehabilitation section at the Department of Social Welfare, a visually impaired person, Mr. Okyere a former tutor of Akwapem-Mampong Senior/Technical School for the Deaf and Mr. Tetteh Ocloo, who are also hearing impaired persons have been able to attain high status in their society. Mr. Osei Akoto also a hearing impaired who was partially trained as a tailor at Bechem Technical Institute for the Deaf, from 1989-1996 regarded as the best tailors in Sunyani. He had about thirty (30) boys and girls as his apprentices. Another student of Bechem School for the Deaf, Mr. Paul Baafi who proceeded to take an 'O' level course at the Presbyterian Secondary School Bechem is now gainfully employed at the Komfo Anokye Teaching Hospital in Kumasi. Several

others have made their marks in the field of education, health, industry, commerce, science, sports and entertainment etc.

#### **2.6.6 Problems of Hearing Impaired Persons in finding jobs**

The hearing impaired individuals lack information on job seeking as they do not have any knowledge of the various public, private concerns and establishments to which individuals could apply for jobs. The communication handicap of the hearing impaired has generally placed limits to their choice of occupation or jobs which do not depend mainly on spoken language skills (Ayensu, 1989). He further reiterates that another impediment to the acquisition of gainful employment arises out of the scarcity and mal-distribution of job opportunities as well as the lack of adequate skills in the commercial and technical fields. It is also worthy to note, that there is discriminatory and other inefficient forms of employment practices which make it difficult for the hearing impaired to compete favourably in the world of work though they may have the necessary skills required for that job.

The effect of unemployment as a result of inadequate or no skills training in particular is that, the deaf are mostly found on the streets of our cities and towns begging for alms while others are mainly engaged in menial jobs like carrying load of goods, cleaning and washing of utensils. Rhodes (1970, p. 14) had this to say about unemployment, “there is high unemployment for the deaf, and I believe sincerely that, we will either prepare these deaf for work, and provide them with jobs or we will continue to fight them on the streets”. Rhodes (1970) continues to say that, work is a means of earning a living, earning self respect for others, and self discipline necessary for effective citizenship in our society. Vocational guidance and training should be early in the elementary school curriculum in order to develop in

all the disabled youth respect for all work and motivating them to take their place in the world of work.

# KNUST



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Overview**

This chapter deals with how the total study was conducted. It covers the research methodology used, the size of the population for the study and sampling techniques employed in selecting the participants of the study. In conducting the study, a vivid explanation of the population and sample sizes, and the use of instruments for collecting data are made with reasons for the choice of questions in copies of questionnaire. Tables, maps and mathematical equations are also used to illustrate important aspects of the study where necessary.

#### **3.2 Research Design**

This study made use of qualitative methodology of research. With qualitative research method, Kulbir (1984, p.245) is of the opinion that, “qualitative inquiry is the type of methodology in which the description of observation is not ordinarily expressed in quantitative terms”. He does not refute the fact that qualitative research makes use of numerical methods; but that, other methods of description such as narration of observable facts are emphasized. Qualitative research considers on holistic description of whatever is been observed, rather than comparing the effects of a particular treatment as quantitative research does. Moreover, qualitative researchers employ vivid description of observed phenomenon to its minimum level that it becomes clearer to the ordinary man.

Qualitative research also seeks insight into issues rather than statistical analysis. It studies phenomena in its natural settings. Moreover, data gathered are sometimes expressed in quantitative terms such as graphs, tables and charts. There are several methods of conducting qualitative research including case study.

### **3.2.1 Descriptive Research**

Descriptive research is a type of qualitative research method that simply seeks to describe particular phenomena as they are. Best (1981, p.4) explains that descriptive research is concerned with hypothesis formulation and testing, the analysis of the relationships between non-manipulated variables that exist, or have already occurred are selected and observed. Gay (1992, p. 217) reiterates that “descriptive research involves collecting data in order to test hypothesis or to answer questions concerning the current states of subject of the study”. The author further opines that “a descriptive study determines and reports the way things are” (Gay, 1992, p.217).

Lisa (2008), in her view believes that “in both quantitative and qualitative analysis, the reduction of a large amount of data to an easily digestible summary is an important function in reporting the state of the variables under studied”. In qualitative research, descriptive statistics are typically observed in mixed method for example, action research, or other qualitative designs. More important, description of data for example lays the foundation for later analyses and interpretation of that collected data (Gay, 1992). This method of conducting research is employed in various types of qualitative research approaches such as reporting a case study.

### 3.2.2 Case Study

McBride (2008, p.2) states that under,

*Qualitative case study researchers argue that cases must be seen as configurational context- and/or path-dependent entities. They advocate in-depth strategies such as “thick description” and “process tracing,” and they opt for a “case-centered” approach rather than the “variable-centered” one that dominates in quantitative/positivist research.*

The period for a case study varies with the research objectives and characteristics of the variables. Gay (1992) is of the view that though this method covers a short period of time, in some cases it can last for considerable time. With case study, the researcher focuses on the problem in its deepest complexity. Leedy (2005) further explains that, case study data collection tools include observation, questionnaire and interviews. Since this study focused on problems that the deaf faces with vocational education and their inability to work with acquired skills, case study was found appropriate for conducting the study for the following reasons:

1. To get ample time to study the subject in their natural setting;
2. To understand fully, the problems associated with teaching and learning in schools for the deaf; and
3. To have a first hand information on the problems under study.

The case study period moreover covered the period between November 2007 and August 2008. Within this period, the necessary data was collected for analysis and interpretation.

### 3.3 Library Research Conducted

Library research formed a major part of this study. The libraries visited include KNUST libraries, the Ashanti Library Kumasi, University of Education Library (College of Technology Education, Kumasi and Wenniba, campuses), and Faculty of Education library, University of Cape Coast. Secondary information in the form of documents on visual arts, vocational education, technical education, special education, educational research methodologies and curriculum were consulted for information. In all, a total of forty six (46) books, journals, reports, articles, and newspapers were read. Some important information were also read or retrieved from the internet.

### 3.4 Population and Sampling

*Sampling* refers to the process of selecting a number of individuals for a study in such a way that the individual selected fairly represent the larger group from which the individual was selected. The first step in sampling is to define the population. The '*population*' is the group of interest to the researcher and to whom the results of the study can be generally applied to (Gay, 1992; Sharon and Zimmerman, (1997) and Fraenkel and Wallen, 2000). Moreover, "the population to which the researcher would want to generalize his findings to is referred to as the '*target population*'; the '*accessible population*' are those members of the population which can easily be reached for information by the researcher" (Gay1992, pp. 124 and 125). The key issue in selecting the sample she further reiterates is a detailed definition of the population so that others may determine how applicable your findings might be to their situation.

### 3.4.1 Population for the Study

There are thirteen schools for the deaf in Ghana. These include both basic and a second cycle schools. These special schools are located strategically across the country to provide education and skills training opportunities for the deaf. Out of the thirteen schools, only one is Senior High School, three of them including Ashanti school for the Deaf and Bechem Technical Institute for the Deaf also run vocational education programmes for its students. Data from the Special Education Unit of the GES as at January 2005 indicated the statistics shown in Table 3.1 below:

**Table 3.1: Number of Pupils in Special Schools**

Type of institution	Number of schools	Male	Female	Total number of students
Schools for the Deaf	13	1348	839	2,187

**Source of data:** *Special Education Division GES Accra, January 2005.*

The population for this research comprised personnel of District Education Directorate, Headmasters, Teachers and students in selected schools for the deaf in the Akuapem North, Sekyere South and Tano South Districts in the Eastern, Ashanti and Brong-Ahafo Regions of Ghana respectively. However, the accessible population is made up of district coordinators in charge of vocational/Technical, special education, head of schools, Visual Art and vocational skills teachers, and students offering Visual Arts and vocational/Technical programmes. Table 3.2 on the next page shows the population distribution in the selected schools that were studied, categories A, B, C and D.

**Table 3.2: Population Distribution Table (Categories A, B, C and D)**

Name of school	Voc./Tech Coordinator & Headmaster	Population of Teachers	Population of students	Voc/Tech Teachers	Voc/Tech Students
S.H.T.S. D. (Akuapem-Mampong)	2	27	171	9	64
A.S. D. (Jamasi)	2	24	271	6	17
T.I.D. (Bechem)	2	40	317	12	62
<b>Total</b>	<b>6</b>	<b>91</b>	<b>759</b>	<b>27</b>	<b>143</b>

*S.H.T.S.D. (Senior High/Technical School for the Deaf), A.S. D (Ashanti school for the Deaf), T.I.D (Technical Vocational School for the Deaf)*

### **3.4.2 Sampling**

Fraenkel and Wallen (2000) and Gay (1992) agree that the sample is a group in a research study from which information is obtained. One of the most important steps in the research process is to select the sample of individuals who will participate as a part of the study.

### **3.4.3 Purposive Sampling**

By this, the researcher purposely selects the sample for the study based on his expert judgment of the population taking into account the objectives of the research. Furthermore, due to the homogenous nature of some of the selected variables, stratification was done to categorize them into various strata. Lisa (2008) is of the view that “in qualitative research, stratification sampling is a specific strategy for implementing the broader goal of purposive sampling. She further reiterates that, the

main reason for stratification in purposive sampling is to compare various strata that define the basis for stratification.

By this, the researcher selected the samples for the study based on his judgment of the population taking into account the objectives of the research. It must be stated here that, stratification of the samples were done after the researcher has purposively selected the variables and identified their characteristics. Therefore, purposive sampling technique was considered appropriate for the study for the following reasons:

1. As a case study, an in-depth study of sample is important to the researcher;
2. The sampled variables of 170 (comprising members in categories C and D) that represent 22% the population from which the sampling was done, was in the researcher's view not so large such that randomization becomes necessary;
3. Each member of the accessible population held vital information which were needed to prove the research objectives;
4. Each stratum is made up of members with similar (homogenous) characteristics;
5. The selected schools which were studied though are of the similar (homogenous) characteristics, each of them has unique problems and potentials that is wealth studying;
6. Out of thirteen schools for the deaf in Ghana, the teachers and students population in the selected schools represent a fair distribution of the over all population of schools for the deaf in terms of accessibility and vocational skills training programme run in these schools.

These sampling techniques were used to select and categorize the total sample of 176. The total sample was distributed among four strata (categories A, B, C and D) to achieve a representational sample size. The strata were heterogeneous in nature.

#### **3.4.4 Characteristics of the Population Studied.**

The population was divided into four main categories comprising the following:

**Category A:** District education officers in charge of special/vocational education in the three districts where the study was conducted.

**Category B:** The headmasters of the schools where the study took place, (Bechem Technical Institute for the Deaf, Ashanti School for the deaf and Senior High School for the deaf) at Bechem, Jamasi and Akuapem-Mampong respectively.

**Category C:** All visual art and vocational skills teachers of the selected schools.

**Category D:** All students of the selected schools offering Vocational/Technical subjects other vocational skills studies under the Senior High School and N.V.T.I syllabi.

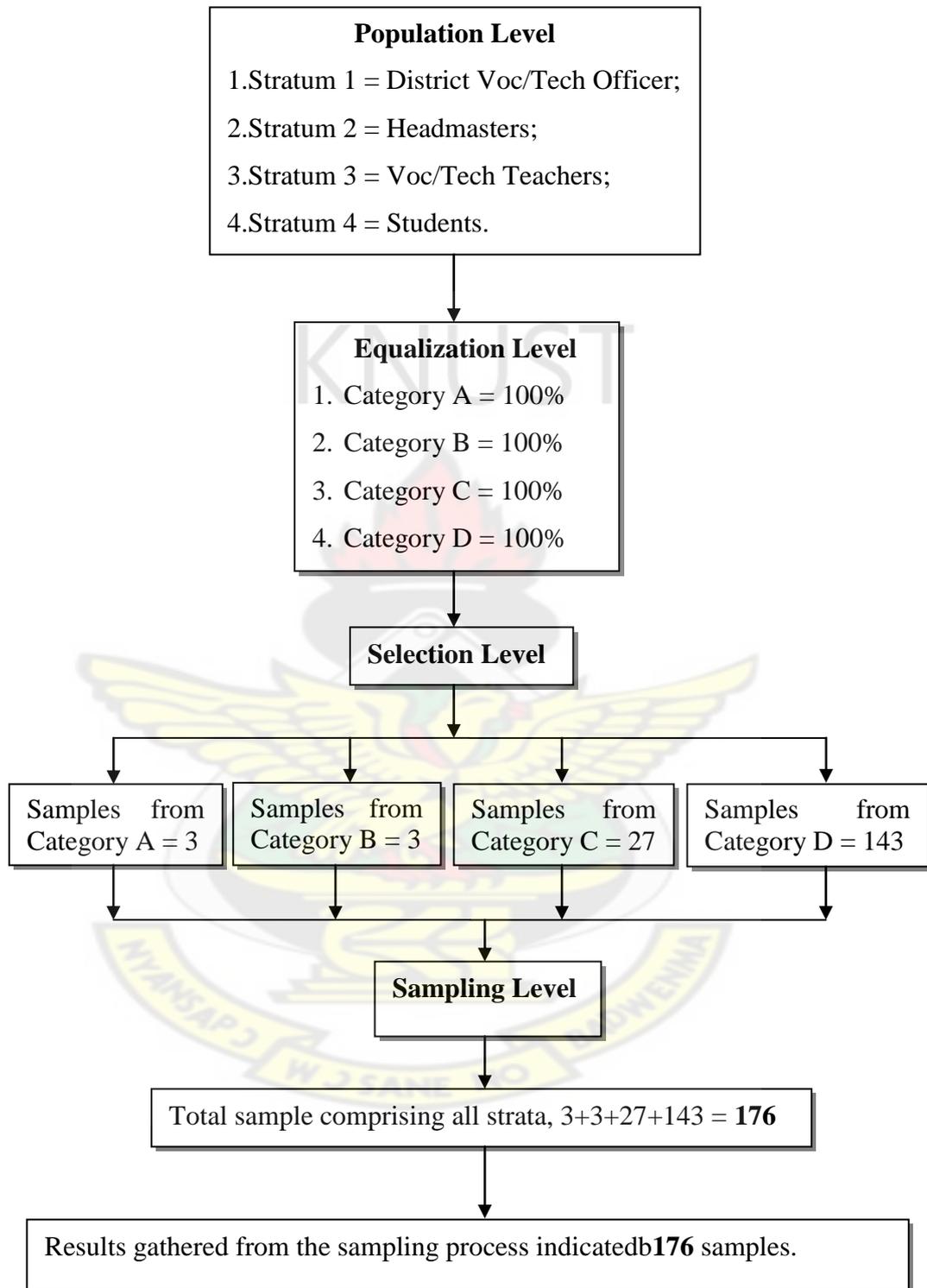
2. Category A- 3
3. Category B- 3
4. Category C- 27
5. Category D- 143

The total accessible population after sampling was 176.

**Source of data:** *selected schools for the deaf and district education directorate of Tano South, Bechem in Brong Ahafo; Sekyere South, Agona in Ashanti and Akuapem North, Akuapem-Akropong in the Eastern Regions of Ghana.*

A sampling design is presented in fig.3.1

## Sampling Design



**Fig. 3.1** Layout of sampling design

**Table 3.3 Subjects Studied in Selected Schools for the Study**

School		Subjects offered
1	Senior High/Technical School for the Deaf (Mampong-Akuapem)	Woodwork, Metalwork, Dressmaking and Tailoring, Building construction, Textiles, General Knowledge in Art, Graphic Design, Leatherwork and ICT studies.
2	Technical Institute for the Deaf (Bechem)	Woodwork, Metalwork, Dressmaking and Tailoring, Building construction, Batik/Tie and dye, Embroidery, Millinery and Needlework, and ICT studies.
3	Ashanti School for the Deaf (Jamasi)	Woodwork, Dressmaking and Tailoring, Weaving, Batik/Tie and dye, catering, Hair dressing.

### **3.5 Data Collecting Instruments.**

The researcher employed triangulation as an appropriate method in collecting necessary data for the study. Therefore, the data collecting instruments employed were observation, interview and questionnaire. These instruments were carefully structured to obtain the right information from respondents concerning the vocational skills subjects in the syllabi of the selected schools.

#### **3.5.1 Observation**

As a primary data collecting tool, observation is a skilled activity which extensive background knowledge, understanding, capacity for original thinking and the ability to spot significant events, is required (Lisa, 2008). There are types of observing behaviour; however, participant and structured observation techniques were adopted for the study since the techniques are usually integrated. These techniques were considered appropriate for the study because, they give a researcher the chance of gathering primary data and also recording precisely what he needs.

The researcher visited the selected schools each term during the study. On each occasion initial two weeks were spent on acquaintance with the teachers and students. Afterwards, series of observations were carried out with teachers and students of the selected schools. These exercises took place during both theoretical as well as practical lessons to observe teaching and learning of Vocational Skills subjects in general in the selected schools with observation checklist. (See appendix D for Observation Checklist).

### **3.5.2 Interviews Conducted**

Interview is a means of gathering information from an individual or a group in regard to the person or persons' experience or knowledge, opinions, beliefs and feelings. Interview has the advantage of allowing the interviewer to solicit information from a respondent and seek clarifications on the spot if necessary. Formal direct interviews were conducted with the District Education Officers in charge of Vocational Education and the Headmasters (categories A and B in Fig. 3.1 above) of the selected schools to seek their views on Vocational Education. This was after copies of prepared interview guide had been submitted to the respondents in advance for their prior study and interview dates have been booked. Copies of correspondence to this effect are on the appendices. In all, two sets of interview guides were made with each, made up of three pages.

It came out of the interviews that, workshop, tools and materials, textbooks for Visual Arts and other Vocational Education subjects have not been provided for in the schools. Also, some parents do not support the training of their wards in school and after school. They also do not help them to find work to do after completing school. Again, what came into light was that, the District Education

Directorate does not pay the desired attention to Special Schools in their districts such as those in which the study took place. Some teachers were found not having the required academic background to the subjects they are teaching, more particularly they were not trained in teaching students with Special Needs.

Electronic instruments such as tape recorder, computer and a microphone were used in recording the interviews. The interviews were helpful in the sense that the respondents were willing to talk more than to write. They also gave in-depth information to the questions that were asked. (See appendix C for interview guide).

### **3.5.3 Questionnaire Designed**

Two sets of close-ended questionnaire were designed for categories C and D (subject teachers and students). For category C, the questionnaire was subdivided into three sections with section A seeking Bio-data, section B, how lessons on skills acquisition are taught and section C employment opportunities in vocational skills and employment avenues after school. It also required comments and suggestions from the respondents to improve vocational skills training for the deaf. Moreover, from observation, it was found that most of the respondents in this category D (students) were much interested in answering multiple choice questions. Therefore most of the questions asked demanded that the respondent make a choice from listed answers. (See appendix A and B for copies of questionnaire)

### **3.5.4 Validation of Instruments**

All the instruments used were drafted and pre-tested with students and lecturers before final copies were made. In the case of questionnaire, series of pre-testing were done to eliminate errors with selected students of KNUST Senior High

School and Bechem Technical Institute for the Deaf. Because of the communication barriers of samples in category C face and the fact that communication with them was a limitation, close-ended type of questions were considered appropriate for them. Also, they were found to have problems in expressing themselves well in writing. After the necessary corrections were made, final questions were arrived at and copies were submitted to the supervisor for his perusal.

### 3.5.5. Administration of instruments

The researcher personally travelled to the selected schools and individuals to administer the research instruments. The following is the break down of the various research instruments as distributed to the respondents.

**Table 3.4 Distribution of Interview Guide (Category A and B)**

<b>Place</b>	<b>Number Interview Guide distributed</b>
<b>Bechem (Tano South District)</b>	<b>2</b>
<b>Agona and Jamasi (Sekyere South District)</b>	<b>2</b>
<b>Akuapem-Mampong and Akuapem-Akropong (Akuapem South District)</b>	<b>2</b>
<b>Total</b>	<b>6</b>

The respondents in categories A and B were District Education officers in charge of Vocational Education and Headmasters of selected schools. The distribution was done after consulting the respondents and interview dates scheduled with them to enable them have a prior study of the questions. Respondents in categories C and D were teachers and students of the selected schools for the deaf. However, only teachers and students who were involved in vocational education in the selected schools were allowed to answer the questionnaire.

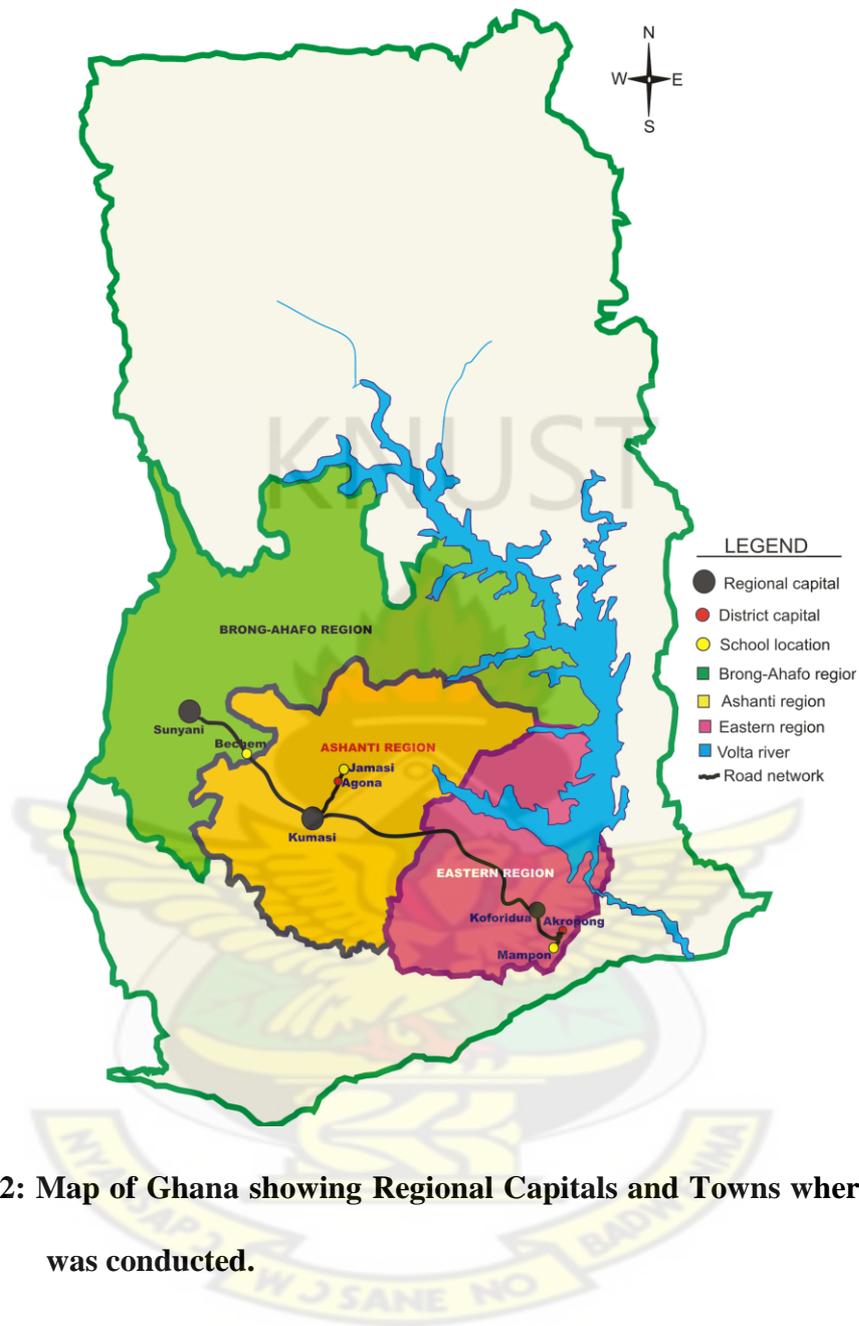
### **3.6 Primary and Secondary Sources of Data**

Information collected through observations, interviews and questionnaire have been treated as primary data whiles information curbed from books, journals and the internet have also been categorized as secondary data.

### **3.7 Data Collection Procedures**

The researcher personally travelled to the selected schools to collect the needed data for analysis. Though, this process was difficult in terms of travelling hours, adequate time, preparation and material resources were put into it to collect the data within reasonable time. With the help of some teachers in the selected schools, the process was quite smooth as communication with the students was fairly interpreted to the researcher. However, the researcher travelled on a number of occasions to the selected schools before the respondents in categories C and D answered the questionnaire given to them. Out of the targeted population of 27 respondents in category C, all 27 (100%) copies of the distributed questionnaire were received. Again, out of targeted population of 143 in category D, 138 (96.5%) of the copies of distributed questionnaire were received.

Members in categories A and B were met individually on scheduled dates where interviews were carried out. With the exception of Sekyere South District Education Directorate, where three officers volunteered to respond to questions, all other interviews were carried out with an individual who was classified under these categories.. Table 3.5 on page 61 indicates the number of questionnaire distributed and the number which was recovered. After the needed data were collected, it was computed with Statistical Package for Social Sciences (a computer software), for analytical purposes.



**Fig. 3.2: Map of Ghana showing Regional Capitals and Towns where the study was conducted.**

**Table 3.5 Distributed and Recovered copies of Questionnaire**

<b>SCHOOL</b>	<b>Distributed Number</b>	<b>Target Number</b>	<b>Received</b>	<b>Distributed Number</b>	<b>Target Number</b>	<b>Received</b>
<b>SH/TD (Akuapem-Mampong)</b>	<b>15</b>	<b>9</b>	<b>9</b>	<b>70</b>	<b>64</b>	<b>60</b>
<b>A.S. D. (Jamasi)</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>22</b>	<b>17</b>	<b>16</b>
<b>B.T.I.D. (Bechem)</b>	<b>15</b>	<b>12</b>	<b>12</b>	<b>66</b>	<b>62</b>	<b>60</b>
<b>TOTAL</b>	<b>45</b>	<b>27</b>	<b>27</b>	<b>158</b>	<b>143</b>	<b>138</b>
<b>RATE (%)</b>	<b>-</b>	<b>100%</b>	<b>100%</b>	<b>-</b>	<b>100%</b>	<b>96.5%</b>



## **CHAPTER FOUR**

### **PRESENTATION AND DISCUSSION OF FINDINGS**

#### **4.1 Overview**

This chapter covers analysis and interpretations of data gathered through observation, interviews and questionnaire. Also, secondary information obtained from literary sources have been analyzed and synthesized with information from primary sources. Tables, charts and graphs have been used to illustrate and analyze some of the responses to questions that were asked through questionnaire. It also discusses the research findings. Out of 170 copies of questionnaire administered, 165, representing 95.8% was recovered from respondents. Again, of the total of 165 recovered copies of questionnaire from both categories C and D, (Teachers and Students) respectively. 163 were used in the analysis. The rest were discarded because they contained missing values. Also, out of 6 respondents to be interviewed, 5 of them representing 83% were available for the exercise.

##### **1.2.1 Observation made**

##### **4.2.1 Teaching and Learning Effectiveness**

The following observations were made with observation checklist during the study period with the teachers and students of the selected schools for the deaf.

It was found that the deaf students are very good in the grasp of practical lessons as demonstrated by their teachers, while the teachers spent more time before students understood theoretical lessons. As such, there were high concentrations on practical lessons. This trend creates a situation where lessons become more practical

oriented without corresponding theoretical knowledge in the aspect of skill understudy. This situation may also be the reason why some of the students perform better in the practical aspects of examination than theoretical ones. Moreover, Crentsil (2004) is of the view that vocational education must have interplay of practical skills acquisition, attitudes and underlining theoretical knowledge for economic and social functions. Furthermore, the link between the students' hearing impairment and their inability to grasp theoretical lesson easily was found to be a result of the use of sign language as means of communication between the teachers and students (Asare, 4<sup>th</sup> June, 2008; personal interaction). It was again observed that the students were very attentive in class and usually works with little or no interest in what happens around them when they are on their own.



**Plate 4.1 Students working with full concentration.**

The teachers were much patient with their students, using persuasive methods and motivation to attract and retain the students' attention in class. The attitude of some students towards a lesson, sometimes led to a situation where their teachers listened to what the students were interested in learning instead of what the teachers had planned to teach. This coupled with unavailable access to alternative teacher support material such as pictures, make lesson delivery more time consuming. As such most of the lessons observed were practical based as opposed to interplay of both practical and theoretical aspects as asserted by (Crentsil, 2004). Because of this,

some a teacher (Samuel Hatto, 11th February, 2008; personal interaction) said that he is not able to complete his subject syllabus before the end of the term and subsequently before the end of the academic year.

In other cases, though teachers and students expressed satisfaction at the end of lesson delivery, there were lack of assessment by teachers such as question time or class test apart from the end of term test. Therefore, students' understandings of lessons delivered were largely not properly evaluated. Again tools and materials for practical demonstration were limited during the observation period. Also, a greater number of the students did not have the chance of trying their hands on skills oriented lessons in the presence of their teachers. These situations indicate that most lesson delivery taking place in Ghanaian schools for the deaf lack two major approaches of the pragmatist theory of education, which are considered and expressed in the syllabi of schools namely: evaluation and learner-centered approaches to education as reiterated by (Quansah, 2000).

### **1.2.2. Quality of Skills Exhibited and Articles made by Students.**

During observation, the students showed high level of skills and masters of techniques. They were much interested in learning new techniques and methods. Some of the subject areas where there are difficulties identified through interactions with some teachers and through observations is discussed below. Also necessary suggestions to reinvigorate teaching and learning activities were made by the researcher. Through demonstrations both students and teachers learnt lot of new techniques and skills. The nature of articles that were executed by the students was of high quality. These were made up of carpentry, metal and welding products, leatherwear, textiles and fashion products.

### 4.2.3. Carpentry/Joinery

Some of the techniques which were focused on in practical lessons were pre-execution drawings and measurements, accuracy of units, assembling methods, finishing techniques etc. Moreover, these techniques as well as products made were found to be fairly good in form, aesthetically appealing, and marketable in the researcher's view. Apart from Bechem Technical Institute for the Deaf where there are well equipped, standard and spacious workshops, the rest of the selected schools have workshops that do not match up to that of BTID. As such, some practical works are done manually in the other schools resulting in lengthy time consumption. Moreover, because of this problem manual process such as sawing, the use of hand plane, hand sanding, bending, reverting and finishing would have been shorter.

Although, tools and materials needed by teachers and students were inadequate, what was available were in the researcher's view judiciously utilized. Some of the products made were tables, chair, prototype staircase, student's bed, shoe rack, room divider, bedside cabinet etc.



**Plate 4.2 Carpentry products at B.T.I.D.**

### **1.2.3. Metalwork/Welding**

Based on N.V.T.I syllabus, the focus of this subject is to train students to acquire skills which can be used to produce simple tools and implements for domestic and occupational uses. It is envisaged that skills in metalwork and metal welding can provide adequate means of employment for students who opt for this subject. Some of the items mostly produced by students of this subject include trowel for masonry, farming implements such as rake and hand fork and domestic articles such as charcoal pot and dust pan. However, due to high cost of tools, materials and machines, teachers and students are not able to undertake some basic practical exercises in which the students can learn more useful skills and also produce more market value products such as furniture, storage tank, constructional items etc. Because of this, it was observed that there seem to be a one-direction trend in learning skills in this subject in the selected schools.

In view of this, the researcher suggested to the teachers in charge of metalwork/welding and leatherwork at SH/TSD at Akuapem-Mampong to come together in making a metal and leather chair with students of these subjects. Both students and teachers of the two subjects showed a lot of enthusiasm in working together and more particularly, the students were appreciative of having the chance to work together with their colleagues offering other subjects.

Considering the potential in an integrated visual/vocational skills training, it will be appropriate if there is an integrated course structure where students can combine various skills, materials and ideas into making a product. Such an approach to vocational education will not only broaden the students' scope and skills but also diversify their choices of materials, resulting in high employment opportunities. This will also ensure Kaffman (1986) arguments that in vocational skills training, children

must be given the chance to try different kinds of their aptitude and interest. Some of the items made are in plate 4.3 below.



**Plate 4.3 Metal products produced by students during the study at SH/TSD, Akuapem-Mampong.**

#### **1.2.4. Leatherwork**

Leatherwork provides broad employment opportunities through decoration, clothing, containers and upholstery. Often, skills training in three of these subject areas (decoration, clothing and containers) are focused on in schools leaving upholstery either untouched or inadequately taught. Enquiry into why this area is almost neglected revealed that, it is costly to undertake practical lessons in upholstery because it demands lot of materials and industrial machines that are unavailable in the school. However, theoretical lessons are conducted in this area of the subject. Nevertheless, theoretical lesson alone cannot provide the necessary skills, knowledge and technical know-how for employment purpose after school. Also, any neglect of a component of a subject will make skills training in that subject incomplete because all the areas are interrelated.

There is a problem with working space for both teacher and students at SH/TSD at Akuapem-Mampong where this subject is offered. There is no workshop for a Visual Art subjects in the school. As such, the same classroom use for other subjects including core subjects also serves as workshop for leatherwork. This situation makes the classroom always dirty and congested with materials, tools, and also smelling of strong odour from skins, hides and adhesive. Such a situation may be a hazard to students with respiratory diseases such as asthma.

Furthermore, as a result of conjunctions in the classrooms, there is inadequate furniture for students because many of the furniture were broken down due to constant pressure on them through vigorous practical work. These were mostly with Visual Arts classroom where writing desk serves as working tables too.

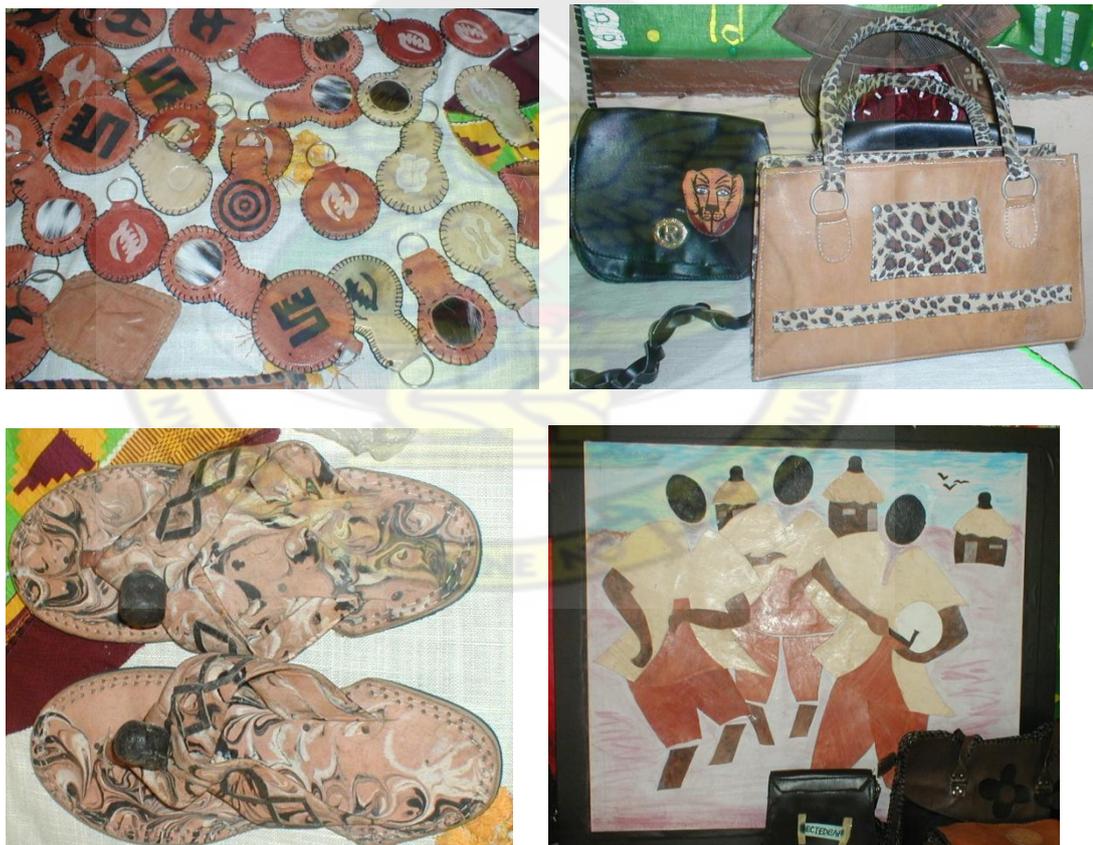


**Plate 4.4 Visual Arts Students working in a congested classroom at SH/TSD at Akuapem-Mampong.**

Again, a major problem identified in the teaching and learning of leatherwork was availability of leather (both natural and artificial) which is the main material needed for practical lessons. Though the schools do not have adequate funds to purchase enough materials for studies, they also have difficulty in accessing these materials easily when funds are available because of the location of the school. Asante-Kyei (2006) reiterates GES policy which state that the choice of a vocational subject in a school should be based on the materials resources available within the locality of the school. The location of the school (SH/TSD, Akuapem-Mampong) on the Akuapem hills in the Eastern region, is quite a distant from Koforidua and Accra where urban market centres are, and materials for leatherwork can be easily procured for use. Whenever practical assignments were to be done, the students worked in groups instead of individual centered approach which may be an effective means of assessing progress of skills development.

Unfortunately, most of the articles made under this subject during the study period at the Senior High/Technical School for the Deaf at Akuapem-Mampong

were highly admired by visitors, but poorly patronized in an exhibition which mounted as part of the school's maiden Speech and Prize Giving day. At this ceremony, it was observed also, that while some of the visitors to the exhibition devalued the works of the students, others wanted them to be offered for free. This observation indicates that there exist even within educational authorities, teachers and some parents negative attitudes towards the deaf students and their handiwork. Again, it might have been that these individual visitors to the exhibition do not attach value for works of art. It could also be that, the visitors genuinely did not have interest in articles made from natural leather. These articles included key holders, ladies' bags, traditional slippers, wall décor etc. photograph of some of these Leatherworks are shown below in plate 4.5.



**Plate 4.5 Some of the Products of leatherwork at SH/TSD**

#### **4.2.6. Textile and Fashion**

Textiles and fashion are the main subjects been studied by majority of the students in all the selected schools for the deaf. Again, material and tools for practical studies were rare. There was also problem with working space. It was observed that some techniques such as weaving on the loom were not taught because teachers did not have expertise in this subject area. However, off loom weaving techniques such as needle work, crocheting and macramé are been taught in all the selected schools. Moreover, some of the students did not have money to purchase materials for practice even though the schools' administrators have provided sewing machines. Also, apart from the syllabus and few teaching and learning materials, textbooks for students were unavailable. Therefore, most students depend on teachers' notes, handouts and pamphlets. It was also found that, N.V.T.I.s' syllabus for this subject was not followed; but rather the teachers taught what they considered appropriate. This was generally observed at Bechem Technical Institute for the Deaf and Ashanti School for the Deaf at where N.V.T.I. syllabi are used in teaching students. The schools do not any internal teacher assessment mechanisms. Therefore, teaching and learning effectiveness is not monitored enough to ensure full adherence to accepted teaching standards.

Batik, Tie and dye, Sewing/Tailoring are the dominating subject areas. The products made by students during the study were of high quality and comparable to others made by professionals in the open market. Moreover, in sewing and tailoring for example, there was more attention paid to the study of patterns by first and second year students for examination purposes. This result in a situation where students make cloths based on past examination questions instead of new trends in the fashion industry. Therefore, variety and style were deficiency in their works. The

researcher made the attempt to introduce other forms of textile artefacts such as bed sheets, apron, napkins and pictorial batik to the teacher and students. Samples of these articles made during the study period are presented in fig 4.6 below.



**Plate 4.6 Some Textiles and Fashion articles made by Students**

The above observations made reveal difficulties confronting teachers and students in vocational education in Ghanaian schools for the deaf. These imply that:

1. Though relevant skills are acquired by students before graduating, these skills are not effective enough for income generating activity. This is because there

exist within practical skills training in these schools a trend of preparing students for examinations purposes as it was noticed in their products.

2. Again, the products made though are perfectly executed, they are not much different from what is made and sold in the open market where the students will compete with other market forces for good prices for their products. It is therefore necessary to diversify the teaching and learning approaches of vocational education to follow changing trends in industries through interaction between the schools and industries. This will also serve as motivation and sources of information for the students. Also students should be allowed to explore and initiate their own innovative designs. When you consider some negative attitudes towards the deaf and the artefacts they produced particularly as observed during the exhibition held at SHT/SD at Akuapem-Mampong; and when you compare similar artefacts made by other people without any impairment available in the open market, then one can conclude that the current vocational education in Ghanaian schools for the deaf though succeed in giving students some basic vocational/technical skills, yet the graduates are placed at a disadvantage on the job market. Therefore, skills training must not only be diversified but also integrated with other subject areas to help the students develop skills in other subject areas. This will make them more versatile. Again, integrating subject areas should be backed by provision of enough tools, machines, constant monitoring and evaluation, as well as focus on mass production techniques and entrepreneurship by authorities concerned.

### 4.3 Analysis of Questionnaire (Categories C and D).

This exercise was carried out to ascertain some of the observations made, to seek further answers to why some problems exist in Ghanaian schools for the deaf and also seek the views of teachers and students on unanswered questions.

#### 4.3.1 Responses from Category C (Teachers).

**Table 4.1 Gender of respondent**

Gender	Frequency	(%)	Valid (%)
Male	10	37.0	37.0
Female	17	63.0	63.0
Total	27	100.0	100.0

Out of 27 respondents, 17 of them representing 63% were females as compared to ten (37%) male teachers. This indicates that more female teachers take up roles in teaching the deaf than males. This is because female teachers are considered more sympathetic to disabled children because of their motherly nature. However, it was also found that some of these female teachers were on internship, while their male counterparts were at permanent post. This situation occasionally creates a vacuum in the teacher–student ratio whenever teachers on internship leave the schools, affecting teaching and learning activities. Observation and interaction with some of the teachers revealed that the most affected group of students in this regard are mostly female students who find it difficult to approach their male teachers especially after contact hours. It may also account for a high dropout rate of female students from the schools.

**Table 4.2 Academic Background of Respondents**

<b>Qualification</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Degree</b>	7	26	26
<b>Diploma</b>	5	18	18
<b>Specialist certificate</b>	3	11	11
<b>Teacher's Certificate</b>	4	15	15
<b>Others</b>	8	30	30
<b>Total</b>	27	100.0	100.0

Undoubtedly, teachers are the pivot of quality education delivery. Therefore, quality education can be achieved with quality teachers. However, the table above shows the inverse. Out of total respondents of 27, only 7 of them (26.7%) were degree holders as against 3 (11%) who hold specialist certificate. Those who hold other certificates 8 (30%) such as N.V.T.I. and City and Guilds were found to be well skilled in teaching methodologies employed in teaching practical aspects vocational education. However, with the exception of specialist teachers and those with diploma in special education, the rest including degree holders were not trained in sign language and other pedagogical strategies which make them competent to carry out their duties as teachers of the deaf prior to teaching in the selected school though their competencies in the subjects they teach are undoubted. These teachers learnt the necessary skills on the job. When summed up, these teachers make up about 70% of the total respondents to question two, as shown in the table 4.2 above.

In his study, Ndala (2006) found that only slightly more than fifty percent of secondary school teachers in sub-Sahara African have the proper qualifications which are insufficient for the achievement of quality education. As a policy, GES the minimum qualification for teaching in Ghanaian second cycle schools should be a degree, diploma or equivalent certificate in the subject a person teaches. The

N.V.T.I. has a policy that allows people with its certificate as well as City and Guilds to students pursuing trade subjects under their system of vocation education. The departments in which the study was conducted in the selected schools are post-basic departments with the SH/TSD at Akuapem-Mampong operating under GES curriculum for Senior High Schools. The rest are also classified as secondary trade schools by the N.V.T.I. Therefore, the teachers' qualification situation as it exist attest to Ndala (2006) finding. Also, considering the special needs of the deaf students in the selected schools, it is necessary for an effective teacher preparation for these schools.

**Table 4.3 Number of years taught.**

<b>Number of years</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>1-5 years</b>	10	37.0	37
<b>6-10 years</b>	7	25.9	30
<b>11-15 years</b>	6	22.2	22
<b>20 and above</b>	4	14.8	15
<b>Total</b>	<b>27</b>	<b>100</b>	<b>100</b>

The highest percentage of respondents to this question was 10 people, representing 37%. These were teachers who have taught for between one to five years. The lowest was 15% representing those who have taught for twenty and above years. The difference between the two groups of teachers (highest and lowers percentages) is undesirable because it is said that experience comes with practice and therefore, teaching the deaf vocational education may be enhanced with long experience, particularly for those who did not have a prior knowledge in sign

language which is the main medium of instruction for teaching the deaf. In this vain, the teachers' skills in both sign language and other pedagogical approaches to teaching the deaf in particular and special needs children in general as far as vocational education is concerned, may become sharpen with long service. This also indicates that teachers who teach in the selected schools do not keep long in the schools.

This situation may be either as a result of factors listed by Casely-Hayford and Lynch (2003) such as long working hours, new career choices, pressure from family etc in general and other social factors such as negative attitudes towards those with disabilities and the stigma attached to vocational education. This is because the opinion is still widely held that vocational skills subjects are for people whose academic performance is insufficient to cope with a more intellectual course of study (Fafunwa, 1971). This attitude may also be a factor behind the poor remuneration attached to skill related jobs in government and the private sectors. Also relating to this is new career choices, frustration from administration, and long working hours. Although there has been a shift in attitude relating to the status of technical jobs, technical education is still ultimately regarded as a poor-even degrading-substitute for purely academic pursuits (Ansell, 2002).

Again, this confirm Avoke (2005, p. 5) explanation that "it is social attitude that largely create barriers for disables; and that the difficulties of living as a disabled person are due to discrimination and prejudices, rather than impairment". These are some of the reason why many teachers in Ghanaian schools for deaf do not serve in these schools for long.

**Table 4.4 SHS or N.V.T.I. Institute**

<b>S.H.S/N.V.T.I.</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
Senior High School	10	37.0	37.0
Vocational/Technical	17	63.0	63.0
<b>Total</b>	<b>27</b>	<b>100.0</b>	<b>100.0</b>

Though the study was carried out at the post-basic departments of the selected schools, it must be noted that only the SHT/SD at Akuapem-Mampong runs the Senior High School curriculum of the GES. The rest of the selected schools namely: Bechem Technical Institute for the Deaf and Ashanti School for the Deaf, Jamasi respectively run the N.V.T.I curriculum of the Ministry Employment and Social Welfare. The difference between the two systems apart from the curriculum is also in the mode and structure of examination. In interviews with officers of G.E.S. and the N.V.T.I. (Mr. Isaac Owusu and Madam Agnes) respectively revealed that, there are differences in supervision of the various skills training under each body.

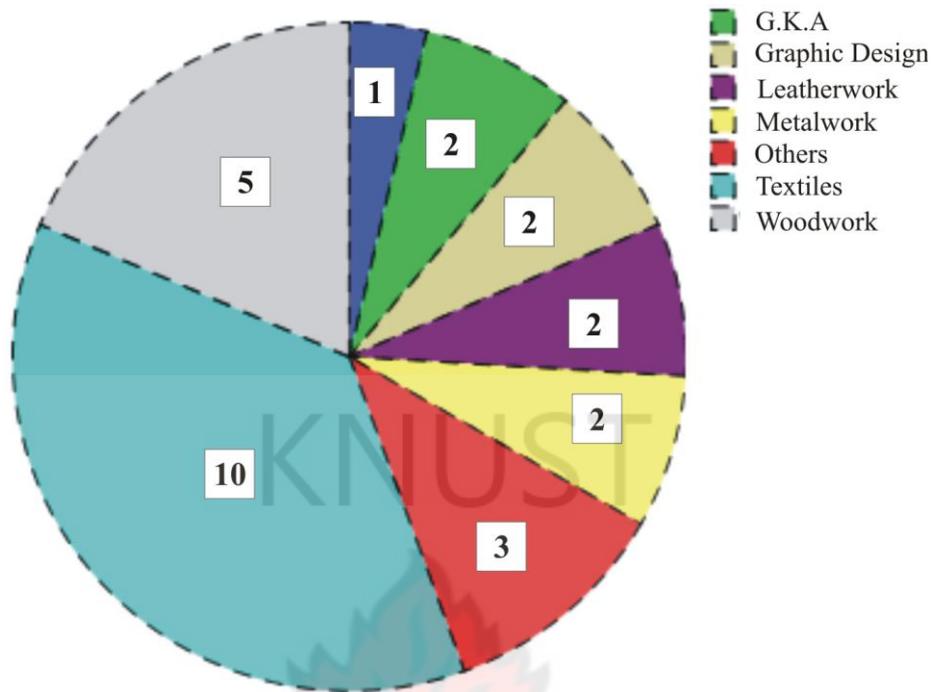
**Table 4.5 Workshops, Seminars and Conferences attended**

<b>(i)</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	6	22.2	22
<b>No</b>	21	77.8	78
<b>Total</b>	<b>27</b>	<b>100</b>	<b>100</b>
<i>(ii) If yes have the Workshops, Seminars and Conferences helped you in teaching?</i>			
<b>Yes</b>	6	22.2	22
<b>No</b>	21	77.8	78
<b>Total</b>	<b>27</b>	<b>100.0</b>	<b>100.0</b>

It emerged out of the interviews conducted with officials of the G.E.S. and the N.V.T.I. that, workshops seminar or conferences serve as refresher courses for teachers of special schools. But these are rarely organized for teachers in schools for the deaf. Therefore this question was to ascertain from the respondents whether they have attended any of such workshops, seminars or conferences before. The answers provided by respondents as shown above confirms what was said during interviews. Only 6 respondents (22%) answered Yes as against 21 representing 78% who answered No. This is a sharp contrast to the responses generated through the interviews especially with members of category A. This also shows that classroom teachers do not undergo refresher programmes which are essential to effective teaching and learning as far as special needs students are concern. Furthermore, it was found through interviews that though workshops, seminar and conferences are rarely organized for teachers, when it takes place, only few of the teachers benefit from them. This also may account for the high percentage gap between those who said No and those who answered Yes above.

Moreover, for those who responded No to that question as shown in table 4.5(i) above again answered No to sub-question (ii) representing 77.8%. But the responses of those who answered No shows that if conferences, seminars or workshops are frequently organized for teachers, it will help not only the teachers alone but also help in achieving an effective teaching and learning in schools for the deaf.

### Which vocational education subjects are offered in the school?



**Fig.4.1 Subject distribution chart**

Out of the subjects listed under vocational education in the Senior High School curriculum, those indicated in fig.4.1 above are offered in the selected schools. It must be noted that carpentry/woodwork, metalwork/welding and other textiles related subjects as shown above are the subjects which are examinable by the N.V.T.I curriculum and therefore are considered as trade subjects. From the fig.4.2 the dominating subject of study by students in the schools is textiles which constitute 37% of the respondents. This shows that textiles and its related subjects may be providing more employment opportunities for both students and teachers.

Considering the diverse material base of this subject, it also shows that with right input this area may be helpful in reducing redundancy, frustration and negative attitudes that are normally associated with unemployment. It should be noted that, with the exception of Graphic Design (11.1%), Leatherwork (7.4%) and General

Knowledge in Art (G.K.A, 11.1%) the other subjects such as Metalwork/welding (7.4%) Woodwork (18.5%), are more manual and as such they are not the preference of female students.

From observation, a subject like block Laying/Concreting which is also offered in two of the selected schools is mostly studied by male students. This may be as a result of the physical strength involved in this subject. Or, it also may be as a result of societal regard to some vocations such as block laying/concreting and metalwork as trade for men.

**Table 4.6 Suitability of Vocational Education Syllabi and Textbooks if any**

Response	Frequency	(%)	Valid (%)
Yes	5	18.5	18.5
No	22	81.5	81.5
<b>Total</b>	27	100.0	100.0

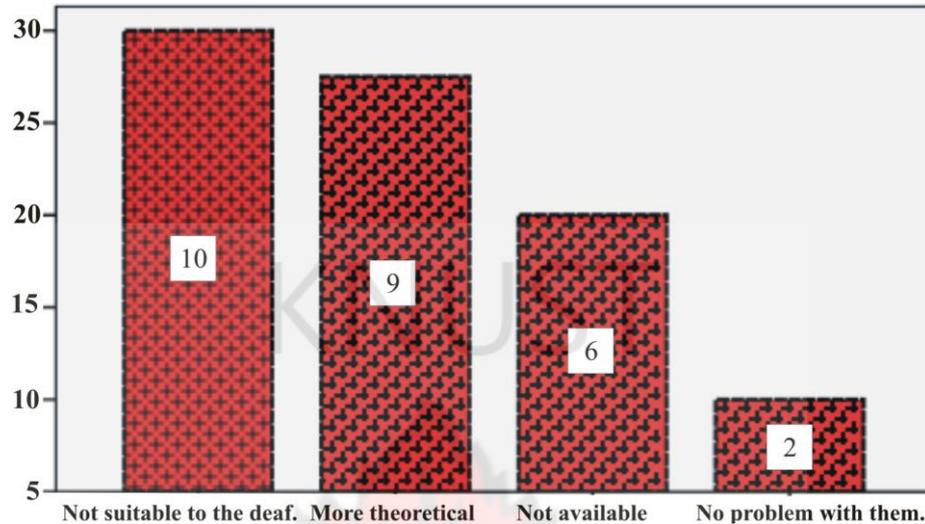
This question was asked to find out from the special need teachers whether the various vocational education syllabi including Visual Arts and its relating textbooks are best suitable for teaching the deaf. 22 of the respondents answered No representing 81.5% as against 5 (18.5%) teachers who thinks that there are no problems with the syllabi and textbooks. This disparity may be an indication that, vocational education of the deaf with the existing teaching and learning materials places the deaf at a disadvantage. This is because vocational education of the deaf is carried out with the same syllabi and textbooks used by normal students. In this vain, it also came out through observation, that adopting the syllabi and textbooks to suite the deaf was not easy in most cases, for several reasons for some teachers.

First of all, some the teachers complained in personal interaction with them that, interpretations of some technical processes with sign language were problematic for them especially for those who were not trained in sign language before they assumed their teaching role in the selected schools. It also came out that, these teachers have problem with using sign language to interpret terminologies and innovative processes in some subjects to their students. This situation leads to time wasting on some lessons.

Secondly and relating to the problems associated with syllabi and textbooks is examination. Institutions such as W.A.E.C. and N.T.V.I. that organizes external examinations for students in schools for the deaf base their questions and assessment on the approved syllabi and textbooks for schools including schools for the deaf. This creates an unfair premise on which the deaf are examined, resulting in their inabilities to perform creditably in external examinations. As a result, some of the graduates are not able to get employed in an institution where academic certificate is required.

Also, most of the deaf students are not able to progress beyond basic education and if they do, majority of them enroll on the vocational education programme in their schools or in the only Senior High Technical School for the Deaf at Akuapem-Mampong. This leads to high dropout of students between basic education level and the post-basic vocational education of the deaf. Those that dropout at this stage of their education do so without any vocational skill or knowledge about the world of work. These people therefore become burden on their families who may hold some form of negative ideas about the deaf.

To further probe the problems with existing teaching and learning materials used in vocational education of the deaf, the following fig. 4.2 indicate responses about these materials.



**Fig 4.2 Problems associated with Syllabi and Textbooks.**

Some identified problems through observation and interviews were provided for the respondents to choose from. This set of problems related to both theoretical and practical components of the curriculum. To this, 10 respondents making up 37% answered that the curriculum does not suit the deaf. The second highest percentage of 9 respondents representing 33.3% of the total respondents answered that they are more theory than practical. As to whether the syllabi and textbooks are adequately available for teaching, 6 (22.2%) respondents answered affirmatively that textbooks and syllabi are always unavailable. Only 2 (7.4%) of the respondents said that they do not have any problem with the teaching and learning materials for vocational education of the deaf.

However, when a question was put to them to find out specifically their individual problem(s) in teaching their students, 12 respondents (44%) answered No, which indicated that they don't have any problem in what they are teaching. This is

contrary to the total of 25 of the same respondents representing approximately 92% who have earlier above chosen various problems that they have with regards to the various syllabi and textbooks. These contradictions may be as a result of misunderstanding of what really the problems are with teaching and learning materials in schools for the deaf. It also shows that the teachers are not much vested in problem identification and as a result, unable to find solutions to these problems posed by the existing syllabi and textbooks.

**Table 4.7 Availability of Tools and Materials**

<b>Response</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	10	37.0	37.0
<b>No</b>	17	63.0	63.0
<b>Total</b>	<b>27</b>	<b>100.0</b>	<b>100.0</b>

The aim of this question was to solicit from the teachers, the availability of tools and materials for teaching and learning activities. 17 said no (63%) while 10 (37%) said yes. This shows that some teachers in these schools do not have access to the right tools and materials needed for academic work. This also confirmed some observations made to this effect. It was further supported by some district education officers in an interview. Moreover, this situation also indicates that the absence of tools and materials contribute to ineffective teaching and learning activities in vocational education which may result in low skills acquisition.

Furthermore, through interviews it was found out that the schools' administrators in most cases provide funds for the purchase of materials for practical skills training. However, two headmasters (Mr. Asare Thompson and Abraham

Boachie) of Bechem Technical Institute for the deaf and Ashanti School for the Deaf respectively said through interview that, these funds are normally unaccounted for by those who signed for them. Also, some of the materials provided for teaching and learning activities by the school authorities were used privately by some subject teachers in producing items for sale or themselves. Again, most movable tools were personal properties of some individual subject teachers at Ashanti School for the Deaf at Jamasi. For this reason, some students did not get the chance of actively getting involved in the use of these tools during demonstration lessons. Besides, there are a number of broken down equipment and worn out tools; limiting the remaining few for the use of many students. On his part, Ndala (2006) explains that most of the teaching and learning materials in Sub-Sahara African countries are outdated and in many cases unavailable.

**Table 4.8 Financial assistance from the School Administration**

Response	Frequency	(%)	Valid (%)
Yes	22	81.5	81.5
No	5	18.5	18.5
<b>Total</b>	<b>27</b>	<b>100.0</b>	<b>100.0</b>

Financial input into vocational education is essential to achieving the necessary goals set for vocational education. Therefore this question was asked to find out from the respondents whether the school authorities provide the needed funds for them to carry out their duties as vocational education teachers. To this question, 22 (81.5%) respondents said Yes while 5 (18.5%) said No. This is an indication that left to the teachers alone, necessary financial assistance to the

vocational/Technical education departments of the school where the study was carried is sufficient. But in the researcher's view, vocational education departments in the selected schools departments are ill-resourced financially, though all the school headmasters explain that they pay the right attention to their needs where necessary. The researcher's view is based on observation made to the effect that, with the exception of fashion students who have access to sewing machines and the Bechem Technical Institute for the Deaf where there are some workshop machines, the rest of the selected schools lack simple machines and equipment for technical subjects such as carpentry, metal works and welding, leatherwork and block laying/concreting.

**Table 4.9 Practical Skills and Entrepreneurship Development in Vocational Education.**

<b>Response</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	22	81.5	81.5
<b>No</b>	5	18.5	18.5
<b>Total</b>	<b>27</b>	<b>100.0</b>	<b>100</b>
<b>(ii) Do you teach your students entrepreneurship?</b>			
<b>Yes</b>	7	25.9	26
<b>No</b>	20	74.1	74
<b>Total</b>	<b>27</b>	<b>100.0</b>	<b>100</b>

Table 4.9 shows respondents' view on whether practical skill acquisition in vocational education is enough to empower their students economically. It further asked whether entrepreneurship skills development is part of their education. To this,

22 respondents said Yes in the first instance, which represent 81.5%, as against 5 who said No, representing 18.5%. It can be seen here that, teachers are optimistic about the way they train their students in practical skills and the economic relevance of the skills for employment purposes. This also shows that the quality of skilled personnel being turned out in schools for the deaf is not in doubt in the teachers' view. This is notwithstanding the multiple problems involved in skills acquisition in the selected schools such as, unavailable tools and scarce materials, financing absolute equipment and unsuitable teaching curricula.

Moreover, in the second instance, employment is one of the expected ends of any good vocational education system. It is also considered as the key route out of poverty of which vocational education is supposed to achieve. It is therefore important for those who are undergoing vocational education for employment purpose after secondary school or further training in a tertiary level to understand the job market and its dynamics. One way of achieving this is to prepare the students to acquire entrepreneurial initiative skills.

The subsequent question in table 4.9(ii) therefore was to find out from the respondents whether they teach entrepreneurship as part of vocational education. 7 respondents (26%) of said Yes whiles 20 of them said No, representing 74%. These figures show that an essential element (entrepreneurial skills development) in vocational education is not been effectively taught in the classroom. It also confirms the observation made that, the academic background of vocational education teachers in teaching business development skills which is more theoretical is insufficient. Again, it contradicts Crentsil (2004) idea that vocational education should have a balance between theory and practice on one hand and entrepreneurial skill development on the other.

**Table 4.10 Starting a trade after School**

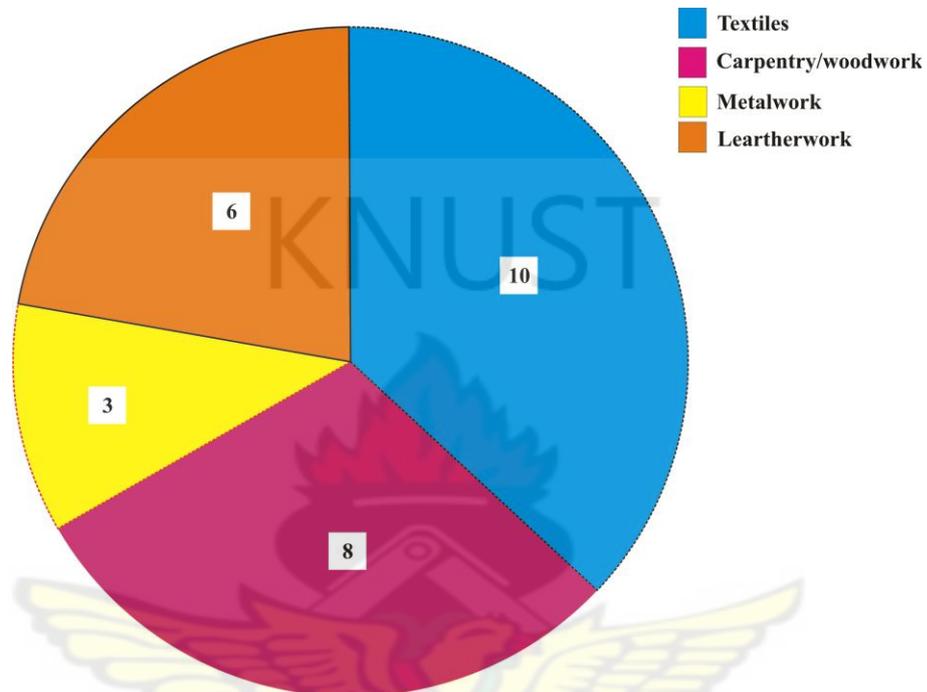
<b>Response</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	8	29.6	29.6
<b>No</b>	19	70.4	70.4
<b>Total</b>	<b>27</b>	<b>100</b>	<b>100</b>

This question was posed to find out from the teachers whether they know their students are able to start a trade with the skills that they learnt in vocational education in their school. 8 respondents (30%) said Yes while 19 (70%) said No. This may be explained that, though majority of the respondents agree that adequate skills are acquired by students before they leave the school, most of the students are not able to work with the acquired skills. This also shows that the relevance of skills training in the selected school is not sufficient for employment purposes as stated by the teachers in table 4.9 above. It also confirms the notion that lack of entrepreneurship skill development as part of vocational education in schools for the deaf also contribute to the inability of the graduates to start a trade with the vocational education they underwent in school.

Also, this problem can be linked to the absence of the sociological dimension of the pragmatic theory as explained by (Manzoor-ul-Haque, 2000 and Edusei, 2005). This dimension covers the needs of the student in the school education process as he is being trained to be able to live and work harmoniously with others and also seek the welfare of his society. This is missing in their training. From these responses and observation, it appears to the researcher that the segregated schools for the deaf have turned to make the student more fit for the schools' environment. Therefore, vocational education in school for the deaf does not prepare them for life

outside their school's environment.

Besides the above, a follow up question was asked to find out which trade the graduates mostly engage in. Lists of careers were provided for them to choose from as shown in fig 4.3 below:



**Fig 4.3 Careers graduates engage in.**

From fig. 4.3, 10 respondents answered Textiles (37%), 8 said Carpentry/Woodwork representing 30%, 3 choose Metalwork making up 11% and 6 answered leatherwork representing 22%. From these figures, it is clear that most of the graduates engage in Textiles/Fashion industry. This further show that the Textile/Fashion industry is more preferred and more lucrative in the students' view than the other vocational careers, also accounting for the high number of students (mostly females) involved in studying its relating subjects. It again indicates that, one does not need much capital to set up a small scale textile industry as compared to other trade areas.

The second preferred trade (Carpentry/Woodwork) in the teachers' view is also common in the society. However, setting a Carpentry workshop may be more capital intensive than textiles, but lesser than Leatherwork. Leatherwork was the third as shown in the fig. 4.3 above. The least was Metalwork. The Metalwork industry may be demand driven besides the high cost of machines and material resources. Moreover, it may be a more income earning venture as compared to the rest. Nevertheless, it attracts low interest by graduates because of the above mentioned factors involved in this industry.

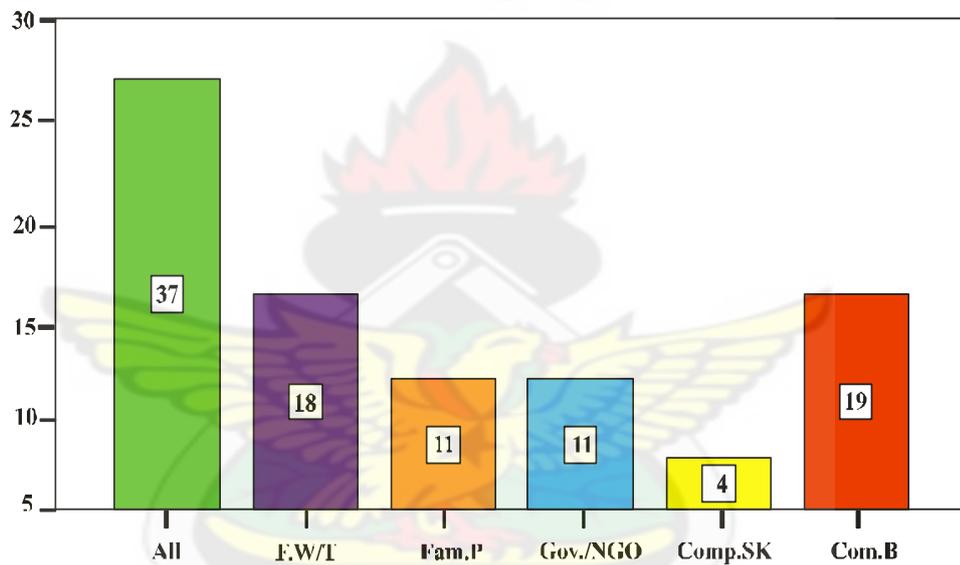
Also, interviews conducted with the headmasters suggested that, students do not fully engage in the jobs they are trained for. The major reason is that, they lack the ability to take initiative or appear not to have the confidence to compete in the job market. The few who are working with the skills they learnt in their school in the headmasters' view are being sponsored by their church or N.G.Os. They were also of the view that some employers doubt the technical ability of the deaf to work effectively and therefore refuse to employ them in their industry. This also indicates that employers' unwillingness to employ the deaf is not due to communication barriers, scarcity and mal-distribution of job opportunities as stated by (Ayensu, 1989).

Subsequently, for those who answered No to the question above, further question was asked to find out what kind of problem or problems in their view their students face after school. In doing so, some identified problems were listed for them to choose from. These were problems that were identified through literature review, interviews and interaction with some parents of the students. These were summed up and coded as follows:

1. **Fam. P.** = Their families do not help them to start a trade.

2. **Com. B.** = Communication barriers.
3. **Comp. SK** = Students do not have competent skills to start a trade.
4. **F.W/T** = There are no funds to start a trade.
5. **Gov./NGOs** = Government agencies, NGOs, traditional authorities, Religious bodies etc do not help students to start a trade.
6. **All** = All the above.

**If no, what problem(s) do your graduates face after school?**



**Fig. 4.4 Possible factors accounting for the inability of the deaf to work after school.**

From fig. 4.4 above, 37% of the respondents think all the listed problems account for the reason why the deaf graduates fail to work with the skills they have acquired. This is an indication that the graduates are not prepared adequately for work after school. It again shows that all the factors that accounts for the inability of the deaf graduate with vocational skills to find job outside the school environment arise from multiple problem including those listed by (Ayensu, 1989). 18% of respondents also think that there are no funds for the deaf to set up a small-scale

industry after completing school. This shows that the deaf students do not know the existence of financial assistance like the District Assembly Common Fund. 11% respondents are of the view that families of the graduates do not assist them to settle down with the skills they have acquired while in school. Another 11% are also of the view that Government Agencies, NGOs, Traditional authorities and Religious bodies do not help the graduates to start their trade after school.

It again indicates that clause 13 of Persons With Disability Act, 2006 (Act 715 of the Parliament of Ghana) is not adhered to especially government agencies. Particularly section (1), sub-section (b) and (c) that mandates an appropriate government agency to help provide to a person with disability, necessary working tools and materials and also assist such a person to access loan capital for that person to start a business.

The least suggestion (4%) was that, students do not acquire the right competencies and skills necessary to start a small – scale industry. This can be linked to the absent of entrepreneurship skills training which should be an integral part of vocational education of the deaf. 19% think that communication barriers in the community in which the deaf lives do not allow the deaf graduate to live and work when they finish school.

From the above breakdown, it can be seen that most of the problems identified were social based. Thus, confirming Avoke (2005) arguments that is society that disables a person but not necessary his or her handicap. This is in the sense that they these factors occur as a result of social barriers such as negative attitudes, discrimination, stigmatization and prejudices against persons with disability in Ghanaian societies. These social barriers do not only prevent the deaf from participating fully in the socio-economic life of the society but also deny them

a fair platform on which they may succeed in exploring their talents and also succeed in working with their vocational/technical skills for themselves, family and society.

#### 4.3.2 Responses from Category D (Students).

*Through interactions with some teachers and from the researcher's own observation, it was found that most of the respondents in category D (students) were more interested in answering multiple choice questions. Therefore a close-ended type of questionnaire in which the questions asked demanded that the respondents makes a choice from listed answer, was considered appropriate for them.*

**Table 4.11 Gender of Respondent**

<b>Gender</b>	<b>Frequency</b>	<b>Valid (%)</b>
<b>Male</b>	73	54
<b>Female</b>	63	46
<b>Total</b>	<b>136</b>	<b>100</b>

Out of the total number of respondents who answered the questions, 73 representing 54% were males and 63 representing 46% females. Unlike table 4.1 above, there are more male students than female students in the selected schools. This means that there is a high rate of female drop out of school from the basic level to the secondary level of education. It may indicate that less female deaf students acquire the necessary skills needed for employment purposes. Perhaps this is the reason why more females hearing impaired individuals are seen begging for alms in Ghanaian communities than their male counterparts. The lesser number of male

teachers in the schools may also show that male students will not have role models to emulate.

**Table 4.12 Type of Certificate awarded**

<b>Certificate</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>WASSCE</b>	60	44.1	44
<b>N.V.T.I.</b>	76	55.9	56
<b>Total</b>	<b>136</b>	<b>100</b>	<b>100</b>

Out of the three selected schools, the examining body of one of them is the West Africa Examination Council (WAEC). The rest, though under the G.E.S. their vocational skills students are examined by the National Vocational Technical Institute (N.V.T.I.). From the table 4.12 above, 60 respondents (44%) are studying various vocational education subjects in the Senior High/ Technical school for the Deaf at Akuapem-Mampong in the Eastern region. In the other schools, 16 respondents were at Ashanti school for the Deaf at Jamasi in the Ashanti region and 60 at the Bechem Technical Institute for the Deaf in the Brong-Ahafo region. Together 76 representing 56% respondents were undergoing vocational skills training with the N.V.T.I. syllabi.

Here, some of the students who sit for the WASSCE at the end of their school period do not leave school with a work oriented certificate as compared to those who took Trade Test administered by the National Vocational Training Institute (N.V.T.I.). Under GES senior High School system vocational education is meant to prepare the student for advance skills training a tertiary institution. Visual Arts and Home economics which are offered in the SH/TSD at Akuapem-Mampong,

in the researcher's view is not effective enough to provide adequate means of employment for the students. So, because these students are not adequately prepared for work outside the school environment through vocational education and also because they have limited chances of seeking further training at a tertiary institution or apprenticeship because of lack of access or communication barriers, then the end result becomes the inability of the deaf to work for other people or on their own making them a burden on their families and communities.

It was also noticed that majority of Visual Arts and Home Economics students do not take these subjects as vocational skills training which can serve as an income making venture for them after completing school. It therefore became necessary to find out how the students understand Visual Arts.

**Table 4.13 Choices of Visual Art vocations**

<b>Responds</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	71	52.2	52
<b>No</b>	65	47.8	48
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>100</b>
<b><i>Students' understanding of Visual Art?</i></b>			
<b>Response</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Visual art is part of vocational skills training.</b>	64	47.1	47
<b>A visual art is for hobby.</b>	72	52.9	53
<b>Total</b>	<b>136</b>	<b>100</b>	<b>100</b>

Lists of Visual Art subjects which are being offered in the selected schools were provided for the students to choose whether they are vocational skills training subject. 71 respondents said Yes, representing 52% as against 65 who said No

representing 48%. The responses show that nearly half of the students do not consider visual arts as vocational skills training. Therefore, their own attitudes toward it could affect the seriousness they attach to it as job oriented skills training. It again shows that the students were not been well oriented in the beginning about the rationale of the Senior High School Visual Arts programme.

Furthermore, in (ii) of table 4.13 above, 64 respondents said Visual Arts is part of vocational skills training subjects while 72 (47%) were of the opinion that visual art is for a hobby. This can be attributed to the fact that respondents from two schools that run the N.V.T.I. system vocational education do not have subjects labeled as Visual Arts in their syllabi. It also shows that, the students misunderstanding of Visual Arts as vocational skills training may be as a result of their negative attitude towards art and vocational education. Again, it shows that teachers do not orient students well on the importance of Visual Arts as a major entity in vocational skill empowerment and as a means of generating job opportunities for them after completing school.

**Table 4.14 Adequacy of skills acquired**

<b>Response</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	61	44.9	45
<b>No</b>	75	55.1	55
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>100.0</b>
<i>(ii) Do you have any problem(s) in your studies?</i>			
<b>Response</b>	<b>Frequency</b>	<b>(%)</b>	<b>Valid (%)</b>
<b>Yes</b>	78	57.4	57.4
<b>No</b>	58	42.6	42.6
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>100.0</b>

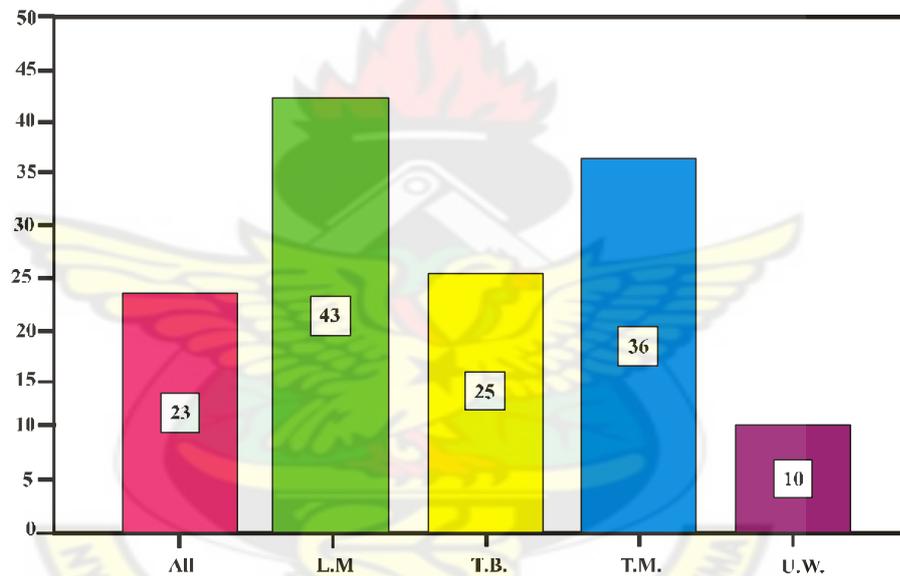
This question was asked to ascertain the students' view on skills training they are undergoing; whether these are effective enough for employment purposes after school. 61 of them answered Yes, representing 45%; while 75 said No (55%). Comparing these data to a similar question put to the teachers, the result suggests that, while most of the teachers who answered the questions believe that their students are given the necessary and competent skills for employment after school, majority of the students are of the view that, they are not well trained with the necessary skills for employment before they leave the schools' environment. These students included final year students who were preparing for their final examinations.

This reveals that, the students do not have self confidence and the urge to initiate their own work or even work for other people. Contrary to the sociological dimension of the pragmatic theory point of view, this situation indicates that skills training that the students are undergoing only prepare them to fit into the school environment. Because the students are not able to utilize the skills after school to generate employment for them and others. Subsequently, a follow up question was asked to ascertain the problem these students have with their studies.

57% of students representing 78 respondents are aware of the difficulties that are inherent in their education. 58 students representing 43% of the 136 respondents said No. It can be assumed that in every educational system, there are problems associated with it. These may include: staffing, instructional difficulties, financial, administration to mention but a few. Those problems which are directly common to educating the deaf students in vocational education in Ghana include lack of teachers, instructional difficulties, unavailable teaching and learning materials, workshop, finance and ineffective assessment (Casely-Hayford and Lynch, 2003).

To probe further from those who responded Yes, a list of identified problems were given to them to choose from those which they are identified with. The answers were coded as shown below.

1. **T.B** = Lack of textbooks
2. **T.M.**= Inadequate materials and tools
3. **UW**= Unavailable well equipped/spacious workshop
4. **L. M** = Lack of money to purchase tools and materials
5. **All** = All the above



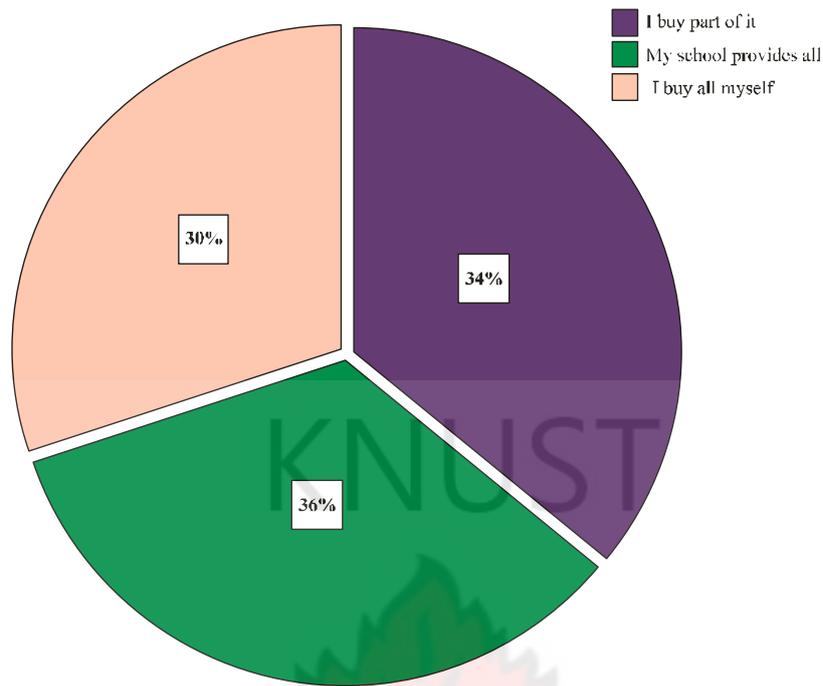
**Fig. 4.5 Some identified students' problems.**

From fig. 4.5 above, 17% of the answer provided indicates that, the respondents face all the listed problems. 31% respondents face financial difficulties in their studies. This confirms their teachers' view on instructional difficulties that are inherited in their education. 18% are of the view that their main problem is with textbooks which are not adequate and available to them. A well equipped workshop creates a good environment for teaching and learning to take place. 10 students (7%) were of the view that their main problem is well equipped workshop. It should be

noted here that, through observation, it was found that workshops and equipment for practical demonstration were not available in the selected schools. With the exception of Bechem Technical Institute for the Deaf where some machinery and equipment were available for use in teaching and learning activities, the rest of the selected schools had limited space and machines for many students. This may account for the lowest percentage of respondents who choose this option.

Moreover, 36 (27%) respondents said tools and materials are their main problems facing them in their studies. Closely relating to each other are the two highest percentages to this question; (27% and 31%) representing those who think their problems are tools and materials and money to buy them when they are not provided for by their school authority. This was found to be an obstacle to the students' skills training because some of them were found to be absent from class during various stages of observation. However, two headmasters (Mr. Abraham-Boachie and Mr. Abraham Fordwor) of the Ashanti School for the Deaf and SH/TSD, Akuapem-Mampong respectively affirmed through interviews that they do not levy or compel any student to purchase tools and materials for studying, because it is against G.E.S. regulations. The above response further confirms Ndala (2006) arguments that quality and availability of teaching and learning materials is evidently problematic in most sub-Saharan African countries.

Because of the headmasters' response on tool and materials and from the researcher's observation on practical lesson delivery in the selected schools, there was the need to find out from the students how they get tools and materials for their practical works. The following fig. 4.6 indicates how the students get these resources for the studies.



**Fig. 4.6 How students get tools and materials for practical training.**

Fig.4.6 shows how students get the necessary learning materials for practical training. Despite school authorities' responses that the students are not compelled to pay towards their training, 30% of the students said they buy all the tools and materials that they use in their practical studies. 34% said they buy part of the tools and materials themselves for practical training. Majority of respondents (36) answered that their school provides all the tools and materials that are used in their skill acquisition.

It is worth noting that quality and availability of the requisite teaching and learning materials are mostly problematic in many Ghanaian schools; with schools for the deaf no exception. Ndala (2006) suggested that many African countries have limited resources for education. He reiterates that this phenomenon does not only account for unavailable tools, but also in many cases what may be available are

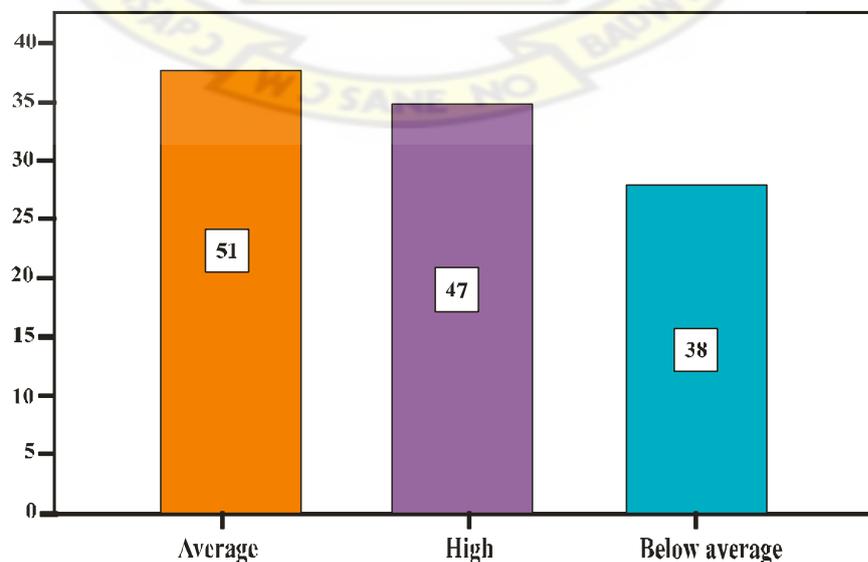
outdated. Moreover, material resources for studies are essential to quality vocational education.

**Table 4.15 Availability of Tools and Materials for Practical skills training**

Response	Frequency	(%)	Valid (%)
Yes	51	37.5	37.5
No	85	62.5	62.5
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>100.0</b>

Asante-Kyei (2006) opines that the choice of specific vocations offered in Ghanaian schools depend on the available human and materials resources in the schools' community. From table 4.15, 51 respondents (37.5%) agree that the necessary tools and materials they need for their training are readily available to them when they need them. 85 of students representing 62.5% are of the view that the tools and materials are not readily available to them when they need them. This further confirms Ndala (2006) finding that most schools in Africa do not have the necessary learning and teaching materials.

### Effectiveness of Teaching



**Fig. 4.7 Students' assessment of their teachers' performances**



To assess the teachers' performances in teaching, the students were asked to rank their teachers in three areas (High, Average and Below average) as shown in fig. 4.7 above. 47 respondents scored their teachers as High, representing 34.5% of the total sample in of students. 51 respondents scored the teachers' teaching effectiveness as average. This is approximately 37.5% of the students sample size. The lowest score was 38 students (28%) representing those who think their teachers teaching effectiveness is below average.

**Table 4.16 Establishing an Enterprise**

Response	Frequency	(%)	Valid (%)
Yes	105	77	77.2
No	31	23	22.8
Total	136	100.0	100.0

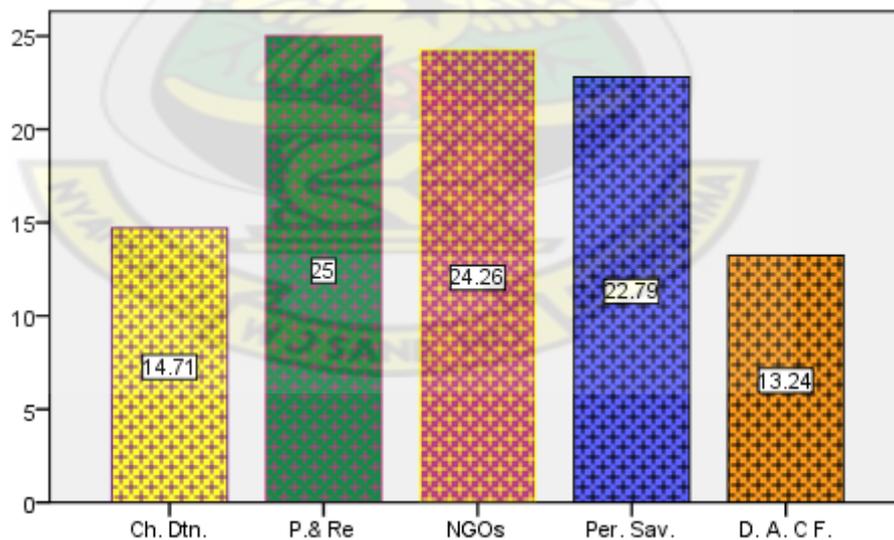
As shown in the table above, most of the respondents representing 77% have the interest of utilizing their skills through self-employment. 31 students (23%) do not have the interest of setting up a workshop after they have left school. These students may be part of those who are of the view that they do not acquire the necessary skills for employment after school as show in table 4.15 above. However, for those who said Yes or No, further questions were asked as shown below:

Despite the high interest of most students who responded to the questionnaire to embark on creating self employment themselves or work for others to earn money, there are some problems that may hinder such ambitions. Therefore, to those who responded Yes to the question above they were asked to indicate a possible sources of raising funds to start a trade. These were coded as follows:

1. **Ch. Dtn.** = Church donation;
2. **P & R** = Parents and Relatives;
3. **NGOs** = Non-Governmental Organizations;
4. **P.S.** = Personal Savings;
5. **D.A.C.F** = District Assembly Common Fund;

**Table 4.17 Sources of Funding to set-up Enterprise**

Response	Frequency	(%)	Valid (%)
Ch. Dtn.	20	15	14.7
P. & R	34	25	25.0
NGOs	33	24	24.3
Per. Sav.	31	23	22.8
D.A.C.F	18	13	13.2
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>100.0</b>



**Fig 4.8 How students will raise fund to start their trade**

From fig. 4.9 above, 20 students making up 14.71% of the respondents look forward to their religious denomination to help them raise funds to set up their workshops. These students may be members of religious bodies or churches that are

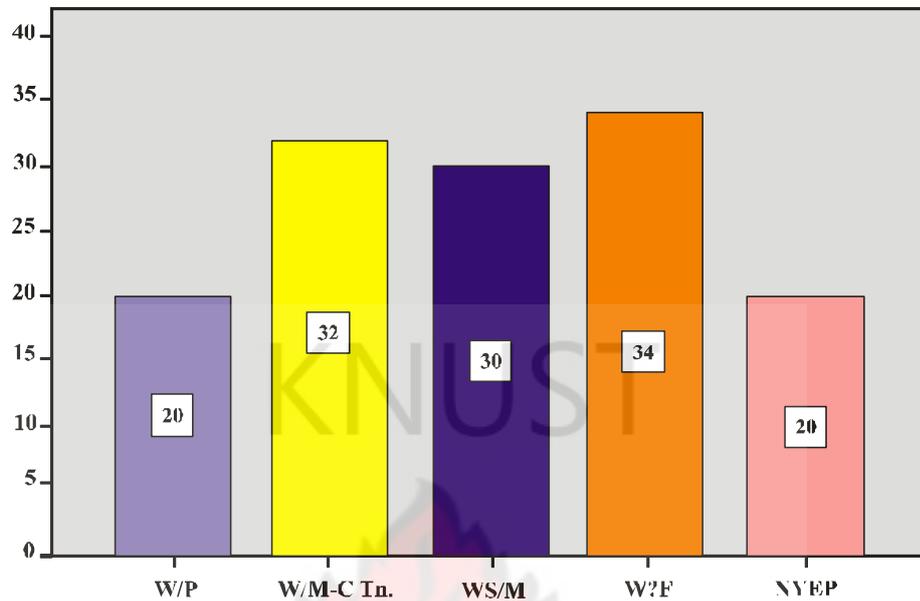
into providing social services to the disabled such as the Catholic Church Relief Service. 34 respondents (25%) believe their parents and relatives will help them to start working with the skills they are acquiring. Moreover, this group of students constitutes the largest number of respondents to this question. Therefore, most of those who answered Yes to the main question consider the family as the main social agency responsible for helping them to make a living after school with the vocational education they underwent in school.

There are Non-Governmental Organizations that help the deaf during and after their studies. Those who consider these NGOs to be of help to them after school were 33 representing 24% of the respondents. 18 respondents said they will seek funding from the District Assembly Common Fund. These respondents represent students who are aware of government's financial assistance to the disabled through the district assemblies. This means that some of the students are aware of various sources of funds and would want to take advantage of them. 31 students representing 23% said they will set up their workshop with their personal savings. These respondents represent students who actually want to make good use of vocational education they are undergoing in school.

On the other hand, for the respondents who answered No to the question above, it was important to find out how they will be able to live a meaningful life after school. Therefore some identified trades which the deaf normally engage in were listed for them to state whether they would also prefer to engage in such trades. These were coded as follow:

- (i) **W/P** = I will work for other people;
- (ii) **W/M-C Tn.**= I will join a craftsman for further training;
- (iii) **WS/M** = I will sell to earn money;

- (iv) **W/F** = I will take to farming;
- (v) **NYEP** = I will join the Youth Employment Programme.



**Fig. 4.9 Alternative career opportunities for the deaf**

From fig. 4.9, 20 of the students (15%) said they will work for other people to make money for a living. It can be seen here that these students do not have any interest in working with the skills they have acquired. It also means that these students do not take skill training as an important means of making themselves dependent, thereby been useful to their family and society as a whole.

32 respondents representing 23% prefer to join a craftsman for further training. This shows that, the respondents may not see their vocational education in school as effective training enough to be self-employed with. Considering the size of this figure, it means that fairly greater number of the students undergoing vocational education do not have interest in the various skills they are been trained in. This confirms that the vocational education subjects being taught in the selected schools as bookish. This also shows that the students are not given vocational counseling in the selected schools.

30 respondents, making up 22% of the total, prefer to sell to make money. These respondents may be prone to begging and other unfair treatment which are mostly meted to the deaf when they engage in buying and selling; because of their inability to communicate effectively with the hearing. The largest percentage in this category was 25% students representing 34 students. These students are interested in farming instead of the trade they are learning.

Moreover, considering the economic importance of agriculture to the country, agriculture education as vocational skills training can be strengthened as a means of initiating the deaf into farming and other agricultural activities. This will not only be useful to the deaf farmer and his family alone, but also further ensure food and economic security for the entire nation.

The National Youth Employment Programme (NYEP) aims at employing the vast unemployed youth population in Ghana for economic growth and poverty reduction. The deaf is aware of the opportunities that have been created through the programme and want to take advantage of it. 20 respondents representing 15% of them indicated to be part of the youth Employment Programme. This indicates that, some of the problems militating against the deaf as far as employment is concerned can be remedied with a special programme aimed at providing employment opportunities for the deaf in particular and the disabled in general.

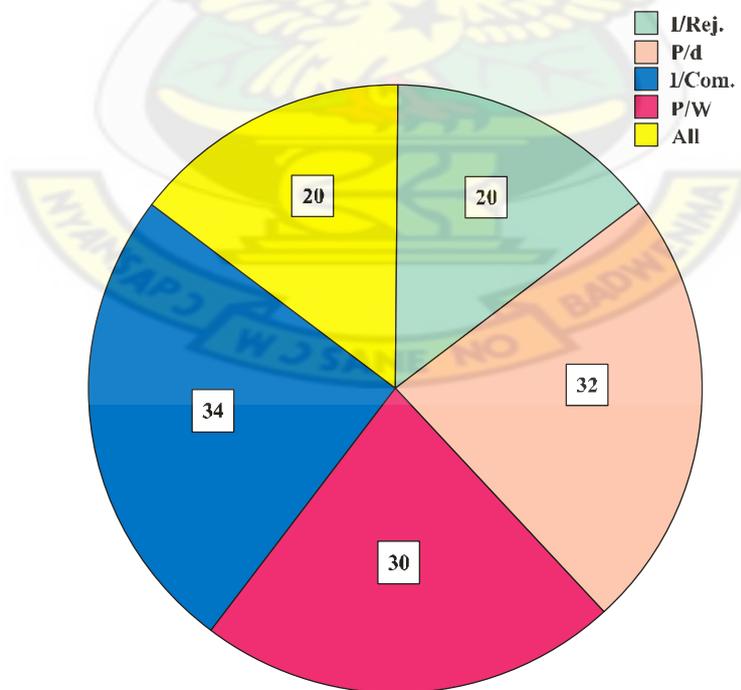
**Question:** Seeks to find out from the respondents the problems they face when they are outside the school environment.

Personal interactions with some parents and students revealed a number of problems they face when they are on vacation. The most common of these problems were listed for them to choose one or more as shown in fig. 4.10 below.

1. **I/Rej.** = I feel rejected by my family;
2. **P/d** = People look down on me;
3. **I/Com.** = I am not able to communicate well with other people;
4. **P/W** = People don't pay me for the work I do for them;
5. **All** = All the above.

**Table 4.18 Problems of the deaf in their Communities**

Response	Frequency	(%)	Valid (%)
I feel rejected by my family;	20	15	14.7
I am not able to communicate well with other people;	32	23	23.5
People don't pay me for the work I do for them;	30	22	22.1
All the above	34	25	25.0
People look down on me.	20	15	14.7
<b>Total</b>	<b>136</b>	<b>100.0</b>	<b>100.0</b>



**Fig. 4.10 Some identified problems the deaf face in their communities.**

From table 4.18 above, 20 students (15%) feel rejected when they are with their families. Also, 20 respondents feel discriminated against when they are in their communities. This may be as a result of negative socio-religious belief such as the belief that disability is caused by one's past deeds (Ocloo et al., 2002). 32 respondents, representing 23% said they cannot communicate effectively with other people outside the school environment. This reiterates the teacher's view that communication handicap of the deaf is main reason why they are not able to work for the skills they learnt in school. It again confirms Ayensu (1989) idea that communication barrier is a major hindrance to the deaf in seeking job placement. 25% representing 34 respondents said that they face the entire problems listed.

From the data discussed above, it appears that negative attitude towards the deaf as well as their inability to communicate effectively with other hearing people are the main problems facing the deaf when they are outside their protected school environment.

#### **4.4 Response from Interviews**

##### **4.4.1 (a) Financing Vocational Education.**

Response from officers interviewed attest to the fact that financial resources adversely affect the total running of vocational education in schools for the deaf. One of these cases is the inability of the district education directorate and school authorities to maintain and repair basic vocational and technical education tools, equipment and machines.

*At times the government gives grants to schools for administrative purposes. However, these monies come in bulk and are not specified whether to be used for this purpose or that, so as the headmaster, I am solely responsible for distributing it.*

*And we pay attention to their feeding first before anything else,*

(Mr. Asare Thompson, June 2008, in an interview).

Among the main challenges facing the Special Education Unit of the GES is the limited financial resources available for the development and improvement of special education in Ghana which include providing vocational and technical education for the disabled. Financial resources have been inadequate and funding for vocational and technical skills training too inadequate. According Casely-Hayford and Lynch (2003, pp. 16 and 17),

*out of the total budget estimates for Ministry of Education, the Special Education Unit receives less than 0.4% to run its entire programme. The bulk of this funding is used to provide institutional care in the form of food for children in special schools.*

There has been very little funding available for creating and supporting vocational and technical skills training and education programmes for the deaf.

Other sources of funding are been explored by schools' administrator to augment what they receive from the government. These include support from NGOs, religious organizations and financial institutions such the Catholic Relief Service, The Rotary Club of Accra East, the Tema Oil Refinery, and international NGOs.

#### **4.4.1 (b) Administration of Vocational Education**

Administration of vocational education directly affects the quality of teaching and learning and the final outcome, (the students who undergo this type of education). Responses from interviews show that heads of vocational departments are directly responsible for the day-to-day running of vocational skills training. According to (Mr. Abraham Fordwor, 4<sup>th</sup> June 2008), in an interview;

*Apart from the general administration of the school in terms of playing supervisory role on all the staff in the school including teaching and non-teaching, I also make sure that materials are available to teachers, classrooms and classroom furniture also available; the right and well qualified teachers are also employed to teach in the school, and ensuring that training materials are provided for the effective teaching of the technical/vocational students.*

From this responds, it can be seen that majority of the responsibilities of the headmaster have been delegated to the head of department to ensure the smooth running of the activities of his or her department. Information gathered from vocational education coordinators reviewed that supervisory role over vocational education activities in schools for the deaf are not effective enough to ensure judicious use of funds that are give to the schools.

#### **4.5 Main findings (weaknesses and strengths identified)**

**4.5.1 Objective one:** To examine the inherent difficulties in the vocational education of the deaf.

**4.5.2 Primary Data: Responds from observation, interviews and questionnaire**

#### **5.5.3 Difficulties in Teaching and Learning Identified**

Data gathered indicate that with the exception of General Knowledge in Art, textbooks for vocational education subjects under the GES Senior High School system as well as Vocational/Technical Skills Training under the N.V.T.I. are unavailable. What are being used are books, pamphlets and teaching notes prepared by the teachers and other publishers. With the available subject books and syllabi,

both teachers and students indicated that they do not meet the peculiar needs of the deaf students. In other words, these materials are not prepared with the deaf in mind.

Teachers and students are of the view that vocational education syllabi of the G.E.S. and N.V.T.I. are more theoretical than practical. Therefore, these materials are not working oriented type and as such, do not help much in equipping students with work oriented skills by the time they graduate. Because of these difficulties, some teachers do not follow the prescribed syllabi simply because they consider them as unsuitable for teaching the deaf. Rather, they rely mostly on pamphlets and their own prepared notes. This was more common among teachers who teach N.V.T.I. Vocational/Technical Skills Training subjects.

Response gathered from the teachers further shows that they are not able to communicate effectively in sign language with the students on some technical terms in vocational education. Also, alternative teaching and learning support materials such as illustrated charts, still and motion pictures which may aid in skills acquisition are also unavailable. Because of this, it takes them much time for the teachers to explain to their students, simple processes which shouldn't take much time to explain. This was found to be one of the reasons why some teachers are not able to cover fully what the syllabi dictate. But at the end of a lesson, teachers do not evaluate properly the lessons delivered.

Workshops in the selected schools are not spacious enough to accommodate large number of students for a lesson. Also, these workshops are not adequately equipped with modern tools and machines. With the exception of B.T.I.D., the rest of the schools selected for the study do not have basic electronic machines such as planing machines for carpentry, few sewing machines for dress making and tailoring,

welding, grinding and bending machines for metal work working tables and basic tools and materials for Visual Arts subjects. Also, classrooms serve as workshop for Visual Art subjects at the SH/TSD at Akuapem-Mampong.

In addition, materials for practical works (such as fabrics, wooden board, metal rods and sheets, leather and paints) were purchase in urban towns and cities which are far away from the location of the schools. This shows that the choice of vocational education subjects offered in these schools are not based on the materials resource found in the locality of the school, as asserted by (Asante-Kyei, 2006).

Also missing in the vocational education of the deaf are vocational orientation and counseling. These are major component of any meaningful vocational education which should not be ignored in anyway. More importantly, due to the hearing impairment and psychological make up of the deaf students, orientation into vocational education at the early stages and orientation into the job market after skills training as well as counseling in the school should be a constant services provided for the deaf students. This will not only motivate the students in school but also ensure that the students are well prepared for work outside the school environment. Again, entrepreneurial skills training as part of vocational education is not effectively taught in the selected schools. As such, students graduate with little marketing skills. This also affects the ability of the students to start a trade with their skills or find market for their products.

#### **5.5.4 Teaching Staff**

For teaching and learning to be effective, one of the important elements to consider are quality teachers around whom effective education revolves and can be achieved. Data gathered through observation, interviews and questionnaire revealed that majority of teachers posted to teach in schools for the deaf do not work for long in these schools. Most teachers posted to school for the deaf do not undergo any in-service training, in the form of workshops, seminars, and symposia on pedagogical strategies. Again, few of the teachers have the requisite academic qualification coupled with training in pedagogical strategies involved in special need education prior to their appointment as teachers of the deaf. A greater number of them for example learnt sign language on the job. This situation creates a lot of inconveniences for such teachers before they are able to build competencies in teaching strategies through the use of sign language.

Also, some teachers are teaching subjects they were either not trained in or did not have enough background knowledge in. For example, in the Ashanti School for the Deaf and Technical Institute for the Deaf in Jamasi and Bechem respective, teachers who were trained to handle basic education children were assigned by the headmasters to teacher in the post-basic vocational departments of the schools. These teachers were not trained in practical skills subjects such as those under GES and N.V.I.T. the vocational education syllabi. As such, some of them lack technical competencies in some subject areas of the subjects they are teaching. A typical case is weaving under textiles, which teachers do not teach at all because they do not have the technical know-how to demonstrate the techniques involved in it.

### **5.5.5 Students**

The deaf students enroll on the vocational education programme for skills training from basic school. This programme was started to provide basic vocational skills for the deaf who did not get the chance to enter a main stream secondary or Vocational/Technical school. Those who got good grades in the B. E. C.E. but did not have access to the only Senior High School for the deaf at Akuapem-Mampong but enroll on the vocational skills training programme available in their school, they do not have good right attitudes towards vocational skills training offered in their schools. This leads to student dropout from school without any skills. This contributes to the inability of such people to work on their own or for other people.

This coupled with parental neglect and negative attitudes by some members of his or her community force such deaf dropout into begging and other anti social activities. Example of such negative attitude towards vocational education is students offering Visual Arts. Most of these students do not consider Visual Arts subjects as part of vocational education. This is as a result of ineffective vocational orientation and counseling. Besides, some of the students have spent more time on skills training than necessary in the selected schools. This situation creates pressure on existing facilities which are not maintained well or expanded. Moreover, vocational skills students, particularly the deaf have limited chance to pursue further skills training in their chosen area at the tertiary level.

Though students are hopeful of starting a trade or find employment with skills training they are undergoing, majority of them do not know how they will get the necessary financial resource to start up their small-scale business. Again, some students lack self-confidence or confidence in the vocational skills training they are undergoing. Data gathered as shown above indicates that greater number of students

who took part of the study do not see the skills training they are undergoing as effective enough to help them live an independent life through gainful employment.

#### **4.5.6 Secondary Data: Information from Literary Sources**

Quality teachers are enabling factors in improving the quality of vocational skills training for the hearing impaired. Ndala (2006, p. 9) asserted that “only slightly more than fifty percent of secondary school teachers in sub-Saharan Africa have the proper qualification which are insufficient for achievement of quality education”. Furthermore, Casely-Hayford and Lynch (2003) reiterate that teachers trained to teach special needs students do not want to teach in special schools in Ghana. Available data collected from teachers who responded to questionnaire, interviews and private conversation confirmed Ndala (2006) assertion.

Both Pragmatist and Re-constructionist theories of education place premium on the needs of the learner. Edusei (2005) and Quansah (2000) have stressed that education should be practical oriented and towards problem solving. Furthermore, Edusei (2005) and Manzoor-Ul-Haque (2000) categorize three main components of the pragmatic theory of education, (the psychological, sociological and logical dimensions). Information collected indicates that vocational skills training in schools for the deaf lack the requisite tools, materials and the right environment in which quality teaching and learning can take place. On the psychological dimension, it appears that the psychological make up of the deaf is not considered in what is prescribed for them to learn.

Again, the necessary resources and facilities such as workshop, equipment, tools and materials they need to aid their learning are either limited or unavailable to

them. On the logical dimension, data gathered indicate that various vocational education syllabi and its relating textbooks are unfriendly to the needs of the deaf. Teachers and students alike are of the view that these resources are not designed to suit the peculiar needs of the deaf.

Unavailable or limited materials for practical lessons may be as a result of limited funding and the location of the schools and the material resources available within the community in which the school is located. This does not reflect Asante-kyei (2006) statement that the choice of vocational skills subject should be based on the personnel and material resources available in the locality of the school. Both teachers and students have indicated that syllabi and textbooks are theoretically oriented and therefore do not support preparing students for the job market.

**4.6 Objective 2:** To find out the problems militating against the employment needs of the hearing impaired vocational skills graduate.

#### **4.6.1 Primary Data: Response from Questionnaire and Interviews**

Data provided by both teachers and students indicate the following.

Some students said that they feel rejected by their families. Response from interviews also confirms this. Some headmasters said some of the parents of students do not give their hearing impaired children the necessary parental care. They also said that some parents do not visit their children in school and do not care whether they come home or not even when their schools are on vacation. Because of this, such parents do not pay attention to helping their children in either starting a trade or find employment in an existing one after school. Apart from the family, other social and government agencies such as the church, District Assemblies, Department of

Social Welfare, Education and Employment Ministries, NGOs and individuals do not provide help to the deaf beyond the school environment.

Again, only few of the students are determined to start a trade with their personal savings. This is an indication that majority of the deaf students have little or no self-initiating attitude towards working with the skills they are learning. It also shows that vocational counseling for the disabled is also not effective enough in Ghanaian schools for the deaf.

Communication between the deaf and the hearing also contributes to the inability of the deaf to get employed with the skills they have acquired after leaving school. In view of this particular problem, the students have become more acquainted to the school environment than their own communities. This is also as a result of the segregated nature of schools for the deaf. The schools with special facilities and protection are far removed from the larger society that cannot be found in the students' communities. This very good environment does not help integrating them well into their communities when they finally complete school, more especially when these facilities are not present in their communities.

There are limited sources of funds for the deaf to apply for financial assistance to help them start up their trade with the vocational skills they acquire from school. Where there are financial assistance available such as the District Assembly Common Fund, most the students are either unaware or do not know how to apply for such funds.

#### **4.6.2 Secondary Data (Information from Literary Sources)**

Information gathered from literary sources show that, the main problems that hinder the employment needs of the deaf are negative attitudes, superstition, stigmatization, communication barriers, segregated schools, ineffective skill acquisition, financial resources and lack of parental/family care.

First of all, theories reviewed emphasized on preparing learners to be problem solvers. Authors have also reiterated that education should be directed towards developing the learner to acquire vocational skills and to work well individually and harmoniously with others. Definitions of education as cited from Agyeman (1986), Curzon (1996), Farrant (1980) and Abosi and Brookman-Amisshah (1992) explain education as social initiating process. Through its' initiative processes, the final result of education, they explained should also include producing a fully fledged social member capable of adapting to societal change. This comprise of people who have both theoretical and practical knowledge necessary for survival of their society and in sustenance of their chosen field of skills.

Some social behaviour shown towards the deaf such as scorn also contribute to the reason why they are not able to live and work in their communities. Again, because of this, when some of them succeed in getting employed with the skills they have learnt, people do not buy from them and those who do, normally do not pay them well or at all for the goods bought or service provided.

Ayensu (1989) is of the view that the problem of the deaf to get employed arises out of scarcity and mal-distribution of job opportunities as well as lack of adequate skills. He further states that communication handicap of the hearing impaired have generally placed limits to their choice of occupation that depend on mainly spoken language skills. He reiterates that segregated schools for the deaf turn

to make the students acquainted more to the school environment than the home. Therefore, it takes a long difficult time for them to settle down in their community. It was found that the deaf find it difficult to get employed in occupations where they are likely to work with hearing individuals. Also the choices of subjects they can study in school are limited by their impairment.

#### **4.7 Strength Identified**

Though very little have been achieved through vocational education of the deaf, there are identified strengths in the programme which can be improved on further to help find lasting solutions to the inherent problems found and listed above.

1. Segregated schools for deaf such as those in which this study was conducted though have contributed to social exclusion for its students; it has also helped to create an environment in which inclusion education can be fostered. This can be done by extending the vocational education programme in these schools to the vast number of J.H.S. leavers who did not get the chance of entering Senior High Schools and would want to pursue skills training.
2. There is a growing awareness of the abilities and potentials of the deaf within the community in which the schools are situated. This is reversing some of the notions some people have about the deaf in particular and the disabled in general.
3. Quality of products made by students of the vocational and technical departments is good if not better and comparable to those made by other professionals found in the open market. This shows that with the right financial input, materials provision and administrative supervision, the

programme will not only help solve unemployment problems faced by the deaf, but also make them contribute economically to national development through sustainable work culture and job creation.

Since the weaknesses of vocational education of the deaf outweigh the strengths identified, it can be concluded that the programme has not achieved in full the purpose for setting it up.

#### **4.8 Test of Hypotheses**

It is generally accepted that effective vocational education for students can help to make them useful members of society (Akyeampong, 2002). In setting the hypothesis for the study, two things were considered. These were the alternative hypothesis (used in collecting and analyzing) and a null hypothesis that permits statistical testing. Lisa (2008) argues that to avoid the disadvantage of a null hypothesis that rarely expresses the researcher's expected results based on insight and logic, a researcher can set two hypotheses. One is a declarative hypothesis that express the researcher's expectation and a statistical null hypothesis.

##### **4.8.1 Declarative Hypothesis**

An effective vocational skills education for the deaf can help make them employable.

##### **3.8.2 Null Hypothesis**

The inabilities of the deaf to utilize skills they have acquired from school are caused by inherent problems in their education and negative social attitudes

towards them. Therefore, in testing the null hypotheses, the following questions were asked.

- 1) Why are the graduates not able to work with the skills they acquired from school?
  - a) Is it from teaching and learning, finance and administrative problem? (objective one); or
  - b) From social factors such as negative attitudes and neglect towards the deaf? (Objective two).

Findings made so far from research instruments and literary sources indicate that, the inability of the deaf student who completed vocational skills training to work with his or her acquired skills include the following.

1. Available syllabi and text books are not suitable for teaching the deaf;
2. Absence of subject orientation and vocational counseling;
3. Lack of financial and material support;
4. Communication is a major problem facing the deaf when they are outside the school environment;
5. Parents, government, NGOs, religious bodies do not support the deaf graduates to set-up their workshop or find work in an established one;
6. Segregated nature of schools for the schools does not help social integration as such, the deaf are not able to fully function in their communities even after completing school;
7. There is scarcity and mal-distribution of job opportunities for the deaf as well as the lack of adequate skills in the commercial and technical fields (Ayensu 1989).

From the above, it has been confirmed that the inability of the deaf to utilize skills

they have acquired from school are caused by inherent problems in their education as well as negative attitudes, superstition, financial problems stigmatization, prejudice, discrimination, communication barriers etc towards the deaf.

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## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary

This research sought to:

1. To examine the inherent difficulties in the vocational education of the deaf;
2. To find out the problems militating against the employment needs of the deaf vocational skills graduate.

The first chapter describes the background to the study and the statement of the problem that necessitated the research work. Generally, the Ghanaian societies have witnessed an increasing phenomenon of unemployed deaf people turning into begging and other anti-social vices such as stealing. Despite decades of providing school based vocational education for people with deaf to help them develop and contribute meaningfully to their families, community and the nation, there is still the problem of huge unemployment among the deaf in general, and in particular those who went through vocational education in schools for the deaf.

Therefore, this research commenced to find out the problems that are associated with vocational education in Ghanaian schools for the deaf, which is widely seen as part of the causatives of unemployment of the deaf who have been trained in vocational skills. Three schools for the deaf namely Bechem Technical Institute for the Deaf, Ashanti School for the Deaf, Jamasi, and Senior High/Technical School for the Deaf at Akuapem-Mampong in the Brong-Ahafo, Ashanti and Eastern regions of Ghana respectively, were selected as case study centres.

Chapter two covers review of related literature on the study. It includes review of theories of education that are considered when the planning curriculum school education in Ghana. It also includes definitions and concepts of education, special education, attitudes towards the disabled and vocational education. Empirical studies were also reviewed.

Chapter three deals with research methodology; qualitative method of research was used in conducting the study. Library visits were made to collect information on related issues on the study. The population and sampling techniques are stated. Tables, maps and figures have been used to explain further various areas on the study. The data collecting tools used were interviews, questionnaire and observation. In all, five (5) out of six (6) people were interviewed. Out of hundred and forty three (143) copies of questionnaire recovered from students, one hundred and thirty eight (136) were considered as accurate. Also, out of forty five (45) copies of questionnaire administered to a target of twenty seven teachers, all twenty seven copies were recovered. Together, a total of one hundred and seventy copies of questionnaire and interviews were used for analysis and discussion. Observation checklist was made to observe teaching and learning of vocational and technical activities. During this period, the researcher introduced students and teachers to new forms of skills and products. Photographs of students at work and products made were also taken.

Chapter four is made up of presentation and discussion of findings. Data gathered through data collecting instruments were assembled in the form of tables, graphs, charts and figures. This was done to ascertain the inherent information in them. Chapter five presents the summary, conclusions and recommendations.

## 5.2 Conclusions

Based on the findings of the study, the following conclusions are made:

1. Vocational education syllabi and textbooks are made without considering the learning needs of the deaf students. Therefore, they are unsuitable for teaching the deaf.
2. Teachers are not to prepare their students adequately for work outside the schools' environment because they are not able to complete their subject syllabi on time because of communication difficulties, unavailable textbooks and absence of teaching and learning materials.
3. Teachers do not follow prescribed syllabi because of poor monitoring and supervision by educational authorities.
4. Workshops for practical skills training in schools for the deaf are not well resourced to ensure effective skills development for work after school.
5. Scarce material resources for vocational education in schools for deaf in Ghana lead to ineffective vocational education.
6. Most deaf students who complete vocational education in Ghanaian schools for the deaf will not work with the skills they learnt in school because of inexistence vocational counseling, orientation job and lack of self confidence on the part of the students.
7. Majority of teaching staff for vocational education in Ghanaian schools for the deaf do not have the right academic qualification in either teaching the deaf or the subjects they are handling.
8. Negative attitudes such as scorn, discrimination, superstition and fatalistic belief shown towards the deaf by some members of their family and communities hinder the chances of the deaf to self employment or finding

jobs.

9. Difficulties in communication between the deaf vocational skills graduate and hearing individuals lead to isolation and therefore limit their chances of working with hearing individuals.
10. Funds for vocational education in schools for the deaf in Ghana are inadequate to ensure effective education especially in practical skills training.
11. There is growing awareness of the abilities and potential of the deaf within the communities in which the selected schools for the deaf are located.

In addition, this study attempted to find out the problems that contribute to unemployment among people with hearing impairment particularly those who have undergone vocational education in schools for the deaf. It is observed that, vocational education in schools for the deaf will prepare the deaf student for self employment or paid job and thus enhance his or her personal, community and national development. Educational policies such as UNESCO's EFA have been strengthened through educational reform of 2007 and Persons with Disability Act 2006 (Act 715) of the Republic of Ghana.

Notwithstanding these the study noticed that, regardless of policies implemented, and the efforts of government, educational authorities, religious bodies, NGOs and individuals who are concerned with general and vocational education for the deaf persons, there exist some challenges in teaching and learning, which directly or indirectly affect the effectiveness of vocational education in schools for the deaf. The effects also extend to the lives of those who undergo vocational education in these schools after graduation.

Finally, considering the quality of practical skills exhibited by the deaf

students during the study, the researcher is of the view that with adequate provision of suitable teaching and learning materials funding and entrepreneurial skills development, the aim of vocational education of the deaf will be achieved.

### **5.3 Recommendations**

In view of the conclusions drawn above, the following recommendations are being put forward by the researcher for the attention of educational authorities, parents, and all who are concerned with the education and development of the deaf.

The current syllabi and textbooks for vocational education of the deaf should be remodeled to suit the peculiar needs of the deaf students. The GES and N.V.T.I. should join up and write subject textbooks for vocational education or remodel the current vocational and technical skill subjects' syllabi to suit the needs of the deaf. This will ensure that the peculiar needs of the deaf are catered for by the syllabi such that, there will be equilibrium between their disability and the content of the syllabi.

It is recommended for the government to become concerned with the quality of teachers for vocational education in Ghanaian schools for the deaf. The Ministry of Education through should embark on series of training programmes where more qualified specialist teachers in special education would be trained in vocational education subjects to teach in schools for the deaf. Also, the ministry should ensure the provision of in-service training for existing teachers to update the knowledge on special education strategies. Such teacher-training programmes should include training in sign language to enhance effective communication with the deaf. Again, incentives for teachers of the deaf should be looked at to attract, retain and encourage teachers to give their best to the deaf students.

Monitoring, supervision and evaluation of vocational education of the deaf should be strengthened by the GES and N.T.V.I. to ensure that the right syllabi are used by subject teachers. Also, there should be an effective monitoring mechanism as well as proper accounting procedure to ensure judicious use of funds meant for vocational education activities. Again, workshop facilities for vocational education in schools for the deaf should be expanded and resourced to accommodate more students and also provide the right environment in which effective skills training can be ensured. The Ministry of Education can do this by sourcing funds from private institutions and NGOs.

To ensure effective vocational education, the choice of vocational skills subjects offered in schools for the deaf should be based on materials resources in the schools' location. There should be Guidance and Counseling officer in schools for the deaf. This officer should be trained to offer counseling to the deaf students on vocational choices. He or she should also be tasked to ensure that the students are well oriented into vocational education when they enroll on the programme and on the job market before they leave the school. Again, this officer should be able to assist the students to acquire practical knowledge through attachment in established industries. He should also assist the teachers to bring to the school, resource persons who will serve as motivation and a source of information to the deaf students on the world of work.

Furthermore, to help eliminate negative attitudes towards the deaf, there should be a vigorous public education through the mass media on the abilities and potential of the deaf. This education should also include creating awareness on the potentials and aptitudes of the hearing impaired for national development. The government, educational authorities, teachers, parents, traditional authorities,

religious leaders and students alike should join in this effort. Particularly, parents who have hearing impaired children should be educated on causes of their children's impairment and how to avoid hearing impairment. They should be made to understand that their deaf children are equally good as their hearing children if they give them the right care and support.

It will be appropriate if 10% of Special Education Budget be channelled into providing vocational education in schools for the deaf. This would make a tremendous difference in vocational education of the deaf and also ensure that the skills acquired by the deaf students become more useful to them, their society and the nation at large. The school authorities can also collaborate with NGOs to source funding towards purchasing modern machines, tools, and equipments and also put up more spacious workshop for vocational education activities.

The policy of Inclusive Education by UNESCO should be implemented speedily to help integrated the deaf well into their community schools. Also, in the immediate term, hearing students who do not have access to main stream secondary schools in the communities in which schools for the deaf are located, could be integrated into these schools for the deaf to pursue vocational and technical skills training. This will close the perception gap between the deaf and the hearing.

Agriculture education should be focused on as vocational skills training in Ghanaian schools for the deaf. In the researcher's view, crop and animal farming hold an effective remedy to unemployment faced by the deaf after schooling. Therefore, refocusing agriculture as vocational education will help diversify vocational education opportunities for the deaf. This can be done by establishing school based farms in schools for the deaf where the deaf students would be trained

in practical crop and animal farming, farm management, disease and pest control in their schools. And upon completion, the deaf students should also be assisted in land acquisition, and financial assistance in the form of loans with flexible terms of payment under an instituted Deaf in Agric Programme by the Ministry of Food and Agriculture. The ministry can set-up an agency to oversee this programme. Alternatively, there can be a Ghana Disables Empowerment Fund from which soft loans can be given to people on the Deaf in Agric Programme. Contribution to this fund can be sourced from both public and private funds as well as development partners.

In the researcher's view, if the above recommendations are fully considered and implemented, vocational education of the deaf in schools for the deaf, and the lives of the deaf graduates after school can be improved. Also, problems which are associated with the deaf and live of the deaf after school such as unemployment that leads to over dependency, begging and mockery can be remedied.

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## APPENDICES

### Appendix A

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
COLLEGE OF ART AND SOCIAL SCIENCES  
DEPARTMENT OF GENERAL ART STUDIES  
QUESTIONNAIRE FOR TEACHERS

Dear Sir/Madam,

These questions seek from you the problem(s) associated with vocational and technical skills training and the reason(s) why in your view some of your graduates are not able to work with the skills they learnt while in school. Your responses will be kept confidentially. Thank you very much.

Name of school.....

#### SECTION A (BIODATA)

*Please tick the appropriate responds below.*

1. Gender: *Male* [ ] *Female* [ ]
2. (i) Qualification: *Degree* [ ], *Diploma* [ ], *Specialist certificate* [ ], *Teachers' certificate* [ ], *others (please state)*.....  
(ii) Number of years taught: *1-5* [ ], *6-10* [ ], *11-15* [ ], *20 and above* [ ].
3. Name of subject(s) you teach (i) .....  
(ii).....  
(iii).....
4. In which system do you teach? (i) *S. H. S.* [ ], (ii) *N.V.T.I.* [ ]
5. Do you often attend workshop, seminar, and conferences on teaching the deaf vocational skills? *Yes* [ ], *No* [ ].
6. If yes, have the workshop, seminar and conference helped you in your lesson delivery? *Yes* [ ], *No* [ ].

SECTION B

7. Which of the following subjects are offered in your school? **Woodwork** [ ], **Metal work** [ ], **Graphic Design** [ ], **Leather work** [ ], **General Knowledge in Art** [ ], **Textiles** [ ], **Building construction** [ ], **Carpentry** [ ].
8. Does the vocational skills syllabi and text books suitable for teaching the deaf students? **Yes** [ ], **No** [ ].
9. To you, what is the problem(s) with the syllabus/text book you use in teaching the deaf?
- a) *It does not suit the peculiar needs of the deaf* [ ];
  - b) *It is more theory than practical* [ ];
  - c) *They are not adequate* [ ];
  - d) *There is no problem with it* [ ].
10. Do you have problem(s) with what you are teaching? **Yes** [ ], **No** [ ]
- If yes, what are the problem(s)?**
- (i) *Lack of text books* [ ]
  - (ii) *Inadequate of tools and materials* [ ]
  - (iii) *Lack of well equipped workshop* [ ]
  - (iv) *Students are uncooperative in class* [ ]
  - (v) *Students don't have money to buy needed tools and materials* [ ]
11. In the case of tools and materials are they readily available? **Yes** [ ], **No** [ ]
- If yes, list SIX or more of them in the table below:**

<u>TOOLS</u>	<u>MATERIALS</u>
1.	
2.	
3.	
4.	
5.	
6.	

12. Do you get financial assistance from your school administration for practice demonstration? **Yes** [ ], **No** [ ].
- a) If yes, please rate the finance assistance to your subject(s). **High** [ ], **Average** [ ], **Low** [ ].
  - b) If no, how do you buy tools and materials for practical demonstrations in class?
    - 1) .....
    - 2) .....
    - 3) .....

SECTION C

13. Does vocational skills training offered in your school enough to provide employment for your students after school? **Yes** [ ], **No** [ ]
14. Do you teach your students entrepreneurship? **Yes** [ ], **No** [ ]
15. Are your graduates able to setup their workshops after school? **Yes** [ ], **No** [ ]
- If yes, which of the following careers do your graduates engage in?**

*Batik/tie and dye [ ], Woodwork [ ], Ceramic [ ], Metal works [ ], Leather work [ ], Graphic design [ ], Picture making [ ], Carpentry [ ], Masonry [ ], Metal work [ ],*

16. Are you graduates able to set up their workshops after school? *Yes [ ], No [ ]*

***If no, what problem(s) do you know your graduates face after school?***

- 7. *Their families do not help them to set up their workshop [ ];*
- 8. *Students are not well accepted into their community only [ ];*
- 9. *Students do not acquire competent skills to start a small-scale industry only [ ];*
- 10. *There are no funds to start a workshop trade only [ ];*
- 11. *Government agencies, NGOs, traditional authorities, Religious bodies etc do not help students to start their workshops only [ ];*
- 12. *All the above [ ].*

**OTHER COMMENTS/SUGGESTIONS (please give four recommendations to improve vocational skills training in your school).**

**(i)**.....

**(ii)**.....

**(iii)**.....

**Note:** *SHS, Voc/Tech, WASSCE, N.V.T.I. = Senior High School and Vocational/Technical West Africa Secondary School Certificate respectively.*

**THANK YOU VERY MUCH!!!!**



## Appendix B

KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
COLLEGE OF ART AND SOCIAL SCIENCES  
DEPARTMENT OF GENERAL ART STUDIES  
QUESTIONNAIRE FOR STUDENTS

Dear student,

These questions seek to find out from you any problem(s) you are having with your studies in vocational or technical skills. Please you are requested to respond to the following questions. Your answers will be kept secretly. Thank you.

Name of school.....

### SECTION A (BIODATA)

*Please tick the appropriate responds below.*

1. (a) Gender: **Male** [ ], **Female** [ ]
2. (b) Age : **10-15** [ ], **16-20** [ ], **20 and above** [ ]
3. (a) Which certificate are you pursuing? (i) **WASSCE** [ ] (ii) **N.V.T.I.** [ ]  
(b) Class/form: (i) **SHS 1** [ ], **2** [ ], **3** [ ]. (iii) **Voc/Tech 1** [ ], **2** [ ], **3** [ ]

### SECTION B

4. Which of the following subjects is offered in your school? **Woodwork** [ ], **Metal work** [ ], **Graphic Design** [ ], **Leather work** [ ], **General Knowledge in Art** [ ], **Textiles** [ ], **Building construction** [ ], **Carpentry** [ ].
5. Do you consider the following subjects as vocational in nature? **Basketry**, **Ceramic**, **Graphic Design**, **Leatherwork**, **Textiles**, **sculpture**, **Picture making**. **Yes** [ ], **No** [ ].
6. How do you understand visual arts?
  - a) *Visual art is vocational skills training.* **Yes** [ ], **No** [ ].
  - b) *Visual art is for hobby.* **Yes** [ ], **No** [ ].
7. Would you be able to work with the skills you are learning? **Yes** [ ], **No** [ ].
8. Do you have problem(s) in what you are studying? **Yes** [ ], **No** [ ]
  - (a) *If yes, what are they?*
    - a) *Lack of text books* [ ]
    - b) *Inadequate of tools and materials for practical* [ ]
    - c) *Lack of well equipped/spacious workshop* [ ]
    - d) *I don't have money to buy needed tools and materials* [ ]
9. How do you get tools and materials for your work?
  - a) *I buy them myself* [ ]
  - b) *My school provides them* [ ]
  - c) *I do not buy anything* [ ]
  - d) *My school provides all* [ ]
10. Are your teachers providing effective teaching? Please mark them below:  
**High** [ ], **Average** [ ], **Low** [ ].

11. Is it difficult to get tools and materials for your practical work? Yes [ ], No [ ]

a) Are they readily available? *Yes* [ ], *No* [ ].

b) **If yes, list SIX or more of them in the table below:**

<u>TOOLS</u>	<u>MATERIALS</u>
1.	
2.	
3.	
4.	
5.	
6.	

12. Do you sell your practical works? *Yes* [ ], *No* [ ].

**If yes, how do you sell them?**

- a) .....
- b) .....
- c) .....
- d) .....

**SECTION C**

13. Would you set up your own workshop or you will work for someone for pay after school? *Yes* [ ], *No* [ ].

**If yes, how will you get money to set up your workshop?**

- a) *Through church donation* [ ].
- b) *Through my parents and relatives* [ ].
- c) *Through NGOs* [ ].
- d) *Through my personal savings* [ ].
- e) *Through my district assembly* [ ].

**If no, how will you take care of yourself?**

- a) *I will work for other people* [ ]
- b) *I will join a master craftsman for further training* [ ]
- c) *I will sell to earn money* [ ]
- d) *I will take to farming* [ ]
- e) *I will join Youth Employment Programme* [ ]

14. How will you sell your finish works?

- a) *people will come to me to buy* [ ]
- b) *people will ask me to produce for them* [ ]
- c) *I will take them to the market to sell* [ ].

15. How do you feel when you are at home with your family?

- a) *I feel rejected by my family* [ ];
- b) *I am not able to communicate well with other people* [ ];
- c) *People don't pay me for the work I do for them* [ ];

- d) *People look down on me [ ]*;
- e) *All the above [ ]*
- f) **Note:** *SHS, Voc/Tech, WASSCE, N.V.T.I. = Senior High School and Vocational/Technical West Africa Secondary School Certificate respectively.*

THANK YOU VERY MUCH!!!!!!

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## Appendix C

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
COLLEGE OF ART AND SOCIAL SCIENCES  
DEPARTMENT OF GENERAL ART STUDIES  
INTERVIEW GUIDE FOR G.E.S. OFFICERS/HEAD MASTERS

### **Introduction**

Training in vocational and technical education is geared towards equipping students with employable skills for job creation. Vocational and technical skills education in Ghanaian schools for the deaf face several problems. As a result, a high number of deaf students who complete vocational skills training in schools for the deaf are not able to work with the skills they trained in. These questions seek from you, your views on vocational education as it is administered in your district/school respectively and the reasons why students are not able to find work after school. You are kindly requested to study these questions carefully and be adequately prepared to answer them on the scheduled date. Thank you very much.

### **QUESTIONS**

1. Can you please give brief background information on your duties in relation to vocational education?
2. Please tell me, what is your role in administering vocational and technical skills training in this district/school?
3. How many vocational and secondary school(s)/departments are under your jurisdiction?
4. Do you have logistic problems with supervising vocational and technical skills training in the district/school?
5. Please, do you organize workshops, seminars etc for teachers in your district?
6. Please in your view, is vocational skills currently being run in school(s) in this district effective enough to offer employment for students after completing school?  
*. If yes, are the students able to start a trade after leaving school?*  
*. If no, what are the problems militating against students after school?*
7. What are the problems facing your school(s) in terms of vocational education?
8. How are you helping find solutions to these problems? .
9. Is the provision of text books and other materials such as syllabus and Teaching and Learning Materials regular to schools in this district?
10. Have you ever have complain on the syllabus use by vocational skills teachers such as not suitable for the teaching the deaf?
11. In your view, does the current syllabus on various subjects meet the specific needs of the deaf?  
*If no, would you agree if separate syllabi are designed for the deaf students?*
12. To what extent does the vocational skills curriculum place the deaf students at a disadvantage?

13. Would you agree that an effective theoretical and practical knowledge in vocational and technical skills training can help provide employment opportunities for the deaf student after school?
14. What are the major problems that the school(s) under you faces with vocational studies?
15. How do you help finance vocational skills training in your schools?
16. Do you have inter-organizational relationship with NGOs, and other institutions and agencies outside the GES in connection with vocational education?
17. Does the GES provide funds for administering vocational skills training in this school?  
*If yes, is it enough and regular?*
18. To what extent do they help in training students?
19. Does the district directorate assist in acquiring tools and materials for teaching and learning?
20. How do you help graduating students in starting their trades?
21. Do you have a problem with students enrolling into the vocational section after completing JHS?
22. Do you pay particular attention to the schools for the deaf under your supervision?
23. How would you compare the performance of the deaf student to the hearing student?
24. What are some of the social problems facing the deaf after school, do you know any?
25. What do you consider as the most singular achievement or failure of the schools for the deaf pertaining to its strategic function of proving quality education to the deaf?
26. Is there any comment-or suggestion you want to add, please?

THANK YOU VERY MUCH!!!!!!!!!!

**Appendix D**  
**OBSERVATION CHECKLIST**

<b>ANGLES OF OBSERVATION</b>	<b>ATTRIBUTES</b>	<b>REMARKS</b>
<b>Is Vocation Education well organized?</b>	<ol style="list-style-type: none"> <li>1) Does the school have workshops? (if yes, are they well equipped</li> <li>2) Do all students participate during lesson time?</li> <li>3) Do teachers have access to teaching support materials?</li> <li>4) Is funding enough for vocational education?</li> </ol>	
<b>Do the input (teachers, learning materials) generate maximum students participation in class?</b>	<ol style="list-style-type: none"> <li>1) Are there enough teachers for vocational education?</li> <li>2) Are there enough text books for all vocational skills subjects?</li> <li>3) If yes, are they readily available?</li> <li>4) Do teachers have access to tools and materials?</li> <li>5) Do teacher have adequate teaching support materials?</li> <li>6) Are students allowed to have a hand-on practice whiles lesson are on-going?</li> <li>7) Do students have equal access to tools and materials?</li> <li>8) Do teachers and students show positive attitudes towards vocational skills?</li> </ol>	

	<p>9) Is practical skills effective enough to enable the students generate employment from it?</p> <p>10) Is adequate time allocated to both theory and practice of vocational skills subjects?</p> <p>11) Do teachers show competencies in both subject areas and sign language?</p> <p>12) Is there any chance of introducing new techniques and products to teachers and students?</p>	
<p><b>Can articles made by students generate interest and patronage in the market?</b></p>	<p>1) Are articles made well executed in form and ergonomically?</p> <p>2) Are articles made aesthetically pleasing?</p> <p>3) Do you consider works by students to be durable enough?</p>	
<p><b>Effects of students' disability on their studies.</b></p>	<p>1) Do students show any sign of disinterest in vocational education?</p> <p>2) How do students respond to theoretical lessons?</p> <p>3) Does segregation have any impact on the students?</p> <p>4) How friendly are the students?</p> <p>5) Are there identifiable problem with individual students?</p>	

## Appendix E

### AN INTERVIEW TRANSCRIPT

**(Abraham K. Fodwor, Headmaster Senior High/Technical School for the Deaf, Mampong-Akuapim)**

**Kwame:** Good afternoon sir!

**Abraham K. Fodwor:** Good afternoon; you are welcomed

**Kwame:** Thank you sir!

#### **Introduction**

*Please sir, as we scheduled earlier, the information I am collecting is to find out the problem associated with vocational skills training for the deaf in this school and why some of the graduates are not working with their skills. Thank you very much for making time for me and allowing me to carry out this research in this school. We will go straight ahead to the main issues at hand.*

**Question:** *Please, first of all give me a brief background of yourself.*

**Response:** I am Abraham J.K. Fordwor. I joined special education, specializing in Education of the deaf in 1996. I was posted to Sekondi School for the deaf and after that I was transferred to Somanya to be the district special education Officer in the district education office. Then from there, I was appointed and transferred to this place as the head master in October 2006.

**Question:** *Before assuming your current position where you teaching?*

**Response:** I taught at the Sekondi School for the deaf from 1996 to 2004 before going to Somanya as the district officer for special education.

**Question:** *Currently, what role do you play as the head of the school in connection with the Technical/Vocational education?*

**Response:** I coordinate the activities of the department. I find out their needs and try as much as possible to satisfy them. That is all that I do.

**Question:** *When it comes to your administrative role, how often do you attend workshops, seminars or conferences of administration?*

**Response:** That one there is no specific time. When they find it necessary, then they invite us for a workshop. In my two year stay, I have gone for not less than six to eight workshops.

**Question:** *Have they been helpful to you in your work?*

**Response::** very, very much!

**Question:** *This place being the only public Senior High school for the deaf, is the vocational/Technical skills training here enough to offer employment for your students after they leave this school?*

**Response:** No, I am saying no because they don't pay fees here. So we depend solely on government's funding. And funds needed for the purchase of items for the practical training are not available. Also the parents normally do not give much attention to their children because they think they are deaf and so they cannot be of any use to them. But they are very, very good. The little works we do here, we see that they are very good in practical work. Because we don't have enough materials, the training taking place here cannot offer them any meaningful job.

**Question:** *What are the major problems facing vocational training here?*

**Response:** It is the acquisition of necessary materials and tools like industrial sewing machines, natural and synthetic leather, boards and adhesives and fasteners. These ones are mainly for visual arts, but when you talk of vocational training in general, it is the acquisition of the necessary tools and materials for practical skills training; because I believe that the theoretical work can not give them any meaningful employment.

**Question:** *How are you solving these problems?*

**Response:** The government sometimes comes to our aid. Sometimes too we appeal to Non-Governmental Organizations for financial assistance to purchase few items for practical training. Sometimes parents also come in but the money they offer is always not sufficient. So, we do the practical works whenever we have the money.

**Question:** *When we talk about text books and syllabi do you have enough of them in this school?*

**Response:** For the syllabus, there are enough. But for text books, I am afraid they are not enough.

**Question:** Does *the current syllabus meet the needs of the deaf?*

**Response:** Well, for the syllabus, education in Ghana is geared to particular goals and the syllabi are designed to meet those goals. So, if we get the materials and tools for the practical, I think the syllabi will not be too difficult for them. Because when it comes to hand work, I think they will over excel the hearing if they catch up with the practical training.

**Question:** *Would you agree that an effective theoretical and practical training will offer employment for the deaf?*

**Response:** That one is true. Especially the practical aspect, when it is very effective it will help in their employment.

**Question:** *How do you finance vocational education?*

**Response:** Sometime we go to the banks for financial assistance. And also people come from outside the school and abroad and we appeal to them to help us which sometimes some of them respond to our call.

**Question:** *What about NGOs?*

**Response:** Actually they don't come in so much with help for vocational skills training but they sometimes do other things.

**Question:** *How do you acquire tools and materials for practical training?*

**Response:** As I said before, we sometime fall on the banks and also the little help we get from the government.

**Question:** *Does that mean that you don't levy the students in any way?*

**Response:** No, not so much. Here it is difficult to levy a student because it is purely a non- fee paying institution. So if you the administrator wants to levy the students, it will be contrary to the regulation. So if something comes in at all, it is the parents who decide on that. That is the P.T.A. levy themselves towards specific projects.

**Question:** *Does the G.E.S. provide funds for administrative activities?*

**Response:** Yes, They give us a monthly F.E. and also money for lodging and feeding. In fact every burden is on the government that is why the government is sometimes found wanting in certain aspects.

**Question:** *A part from the banks do you get help from any other NGOs such as the C.R.S., World Vision or Rotary?*

**Response:** The C.R.S. especially has been very helpful to us. Actually their supplementary feed they give us is of great help to us. For Rotary, recently we had a letter from one of their clubs that they want to come and help us.

**Question:** *When student finishes, does the N.G.O or the school help them with tools and other things to help them start up something?*

**Response:** No, this is a secondary school so when they finishes, they just leave here.

**Question:** *When you receive G.E.S. funding to your school, what percentage is put into practical training?*

**Response:** That one, sometimes they give some fund for teaching and learning materials. So that money goes into teaching and learning and tools and materials for the department.

**Question:** *Enrolment from the Junior High school to the Senior High school how is it like?*

**Response:** It has improved greatly, because this school started with twenty students and now they are over two hundred. So there is an improvement. Last year admission sent by the computerized system was about one hundred and twenty. It has never been so.

**Question:** *After leaving this school, how are your students accepted into their communities?*

**Response:** I cannot answer this question very well because normally I don't follow them to their communities. But in general you can see that they feel more lively when they come back to the school.

**Question:** *In your view how would you compare the deaf to the hearing on the job market?*

**Response:** I have met some few of them who did visual art and what they produce is very nice. As to how much they get from what they do, I cannot tell. They cannot organize themselves very well so they are not able to market themselves well.

**Question:** *What about academics?*

**Response:** Practically they are comparable to the hearing but in theory, sometime they find things difficult.

**Question:** *Is it because of their disability?*

**Response:** Yes; according to literature the immediately you loose your sense of hearing, you loose about 80% of the ability to learn especially in academic and that is a big problem for them some of them.

**Question:** *Please what do you consider as the most significant achievement of this school?*

**Response:** The school has been able to produce some university graduates, teacher training graduates, and we are working hard to help them live a meaningful life. So in general, they are able to achieve something in life but for employment, it is not easy for them at all.

**Question:** *And is there any failure?*

**Response:** We are not 100% so there are some few cases of like that. We don't have a Ghanaian sign language. It is now coming into the system. What is there is the English and American sign languages. In that particular area we have not done well because deaf education has been over fifty years in Ghana but we have not been able to developed a standardized language for them.

**Question:** *Please is there any other thing you want to add to what we have discussed so far?*

**Response:** Yes; if NGOs or individual philanthropist can come to the aid of these children, they will be beneficial to them. The parents also have to be educated. Finally what I am advocating for is for the parents to form a national association to fight for the rights of their children.

*Please sir that will be enough for now. Thank you very much for your time and attention.*

**Response:** You are always welcomed.

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