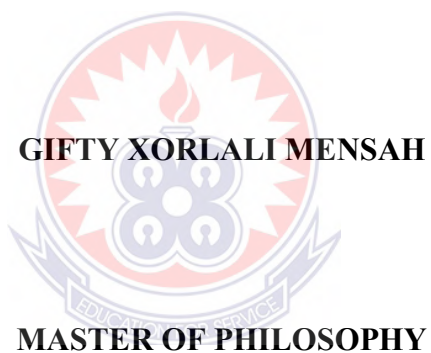


UNIVERSITY OF EDUCATION, WINNEBA

**ACADEMIC EXPERIENCES OF STUDENTS WHO ARE DEAF AT
ODUPONGKPEHE M/A INCLUSIVE BASIC SCHOOL KASOA, GHANA**



2023

UNIVERSITY OF EDUCATION, WINNEBA

**ACADEMIC EXPERIENCES OF STUDENTS WHO ARE DEAF AT
ODUPONGKPEHE M/A INCLUSIVE BASIC SCHOOL KASOA, GHANA**



**A thesis in the Department of Special Education,
Faculty of Educational Studies, Submitted to the School of
Graduate Studies in Partial Fulfilment
of the requirements for the award of the degree of
Master of Philosophy
(Special Education)
in the University of Education, Winneba**

SEPTEMBER, 2023

DECLARATION

Student' Declaration

I, Gifty Xorlali Mensah hereby declare that this work is the result of my own research, carried out in the Department of Special Education, University of Education, Winneba. Also, all sources that I have used or quoted in this work have been fully acknowledged by means of complete references. I also declare that as far as I am aware, this work has not been submitted to any academic institution for a certificate or a degree.

Signature:

Date:



Supervisor's Declaration

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

Dr. Samuel K. Amoako-Gyimah (Supervisor)

Signature:

Date:

DEDICATION

I dedicate this work to my research participants at Odupongkpehe M/A Inclusive Basic School and to all Friends of Jesus Club Kasoa District.



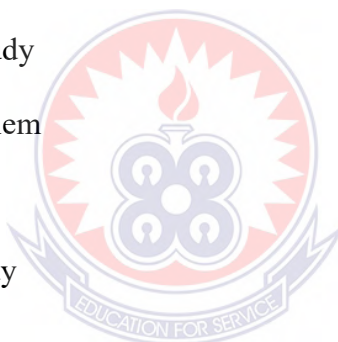
ACKNOWLEDGEMENTS

Developing a research paper of this kind requires hard work and dedication. I am most grateful to the Almighty God for giving me the strength, wisdom and knowledge to come out with this detailed research paper. I also want to express my massive indebtedness to our lecturer, Dr. Samuel Amoako-Gyimah for keeping me on my toes and aiding me to complete this research paper. I would also like to express my profound gratitude to Rev. Nana Akua Appiah who took active part in my research work, without her support and encouragement I would not have come this far.

A special note of appreciation goes to the Odupongkpehe M/A Inclusive Basic School for their warm reception and cooperation throughout the entire interview session. In carrying out the field work I relied largely on the information they fed me with. I would like to use this opportunity to humbly acknowledge the invaluable services of Dr. Daniel Fobi and the entire department for equipping me with the required tools of how to conduct a research. Finally, I wish to emphasize that, I carry the responsibility for any errors detected in this research work. I also welcome comments, suggestions and constructive criticisms meant to generate further investigation as part of the learning process.

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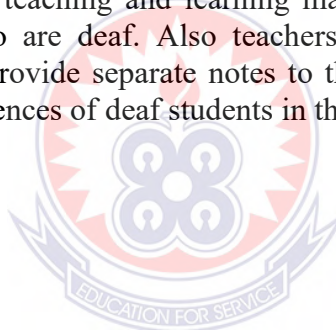
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ABSTRACT

The purpose of this research study was to explore the teaching and learning, interpreting services, assessment and note taking services experiences of students who are deaf at Odopongkpehe M/A Inclusive Basic School, Kasoa. Eight students who are deaf from Junior High School (JHS)1 and 2 were homogeneously sampled for the study. Semi structured interview guide and observation checklist were used to collect data. Data were coded and analyzed using a thematic approach. Results of the study indicated that participants had some concern about teaching and learning that goes on in the school. Students who are deaf were actively involved in teaching and learning activities during lessons. They always participate in assessment tests conducted in the school and during examination, interpreting services and special attention in the form of extra time is given to them during exams. However, interpreting services rendered to students who are deaf in the absence of interpreter during lessons was not the best because students who are deaf had to rely on the notes of their hearing colleagues in order to gain access to information in the absence of their interpreter during lessons. More so, provision of interpreter was inadequate and no official note taker was provided to assist deaf students academic work and this has made teaching and learning difficult for both the interpreter and students who are deaf. The study recommended that school authorities of Odopongkpehe M/A Inclusive Basic School should provide adequate teaching and learning materials for effective teaching and learning of students who are deaf. Also teachers and interpreter should organize additional tutorials and provide separate notes to the level of deaf students so as to improve academic experiences of deaf students in the school.



CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

From many categories of disabilities, deafness, the key concern of this study, is one of the sensory impairments which is well recognized all over the world as one hindrance to education access (Kyere, 2009). In theory, deafness is the total loss of the ability to hear in one or both ears caused by damage to or deformity of one or more parts of the ear (Rafi, 2008). People who are deaf ordinarily have profound hearing loss, which implies very little or no hearing. They often use sign language for communication (WHO, 2014). This group of people suffer from communication problem because majority of hearing individuals do not understand and practice their medium of communication.

More so, in the history of Ghanaian deaf education, the restructuring of Ghana education system has been in operation even before independence with the notion of making it meet technological, sociological, economic, educational and cultural needs of the people of Ghana (Kyere, 2009). Education of persons with disabilities in Ghana started with the blind in 1936 at Akuapem-Akropong in the Eastern Region (Avoke, 2001). And in 1957 there was an introduction of school for the Deaf at Osu in Accra, which further expanded basic education for the deaf all over the country (Cudjoe, 2020). Some of these schools started vocational education for their students in order to empower them with basic economic skills in order to reduce the rate of over dependence on their families and to have good social skills with one another in the society (Kail, 2007; Kyere, 2009). In our society, the language officially used by individuals who are deaf is the Ghanaian Sign Language (GhSL). The sign language is a major force that binds deaf people together. With the Sign Language, the reaction

of what is said, viewed, felt and thought of or spoken is through the use of the eye and gestures of hands and body. The sign language is a basic natural language for the deaf, particularly for those who were born deaf and belong to the deaf community. It is one of the means by which the world of the deaf can be explored by the hearing and that of the hearing by the deaf.

In Ghana, majority of individuals who are deaf have hearing parents, only a few have parents who are deaf. The majority of deaf individuals grew up in families where sign language was not used by the hearing members. In a situation where hearing members could not take their time to communicate using sign language or when hearing impaired finds it difficult to lip read hearing ones, it creates communication barrier between both the hearing and deaf individuals and eventually leading to isolation of the hearing impaired within the family.

This unfortunate incident often occurs also in most inclusive schools practicing Deaf education, in a situation where communication in sign language is seen to be the best means of transferring knowledge to deaf children. Here, students who are deaf are taught with spoken language instead of the Ghanaian sign language in the absent of sign language interpreter. Though the language policy of Ghana states that children should be taught in their own local language, sign language is not recognized as the local language of the deaf in this regard. Some inclusive schools teach their students who are deaf with the structure of English Language which is different from the structure of Ghanaian Sign Language because both hearing and students who are deaf are put in the same classrooms receiving education together. This creates a barrier to basic teaching and learning for students who are deaf right from the start of their education and make academic experiences difficult in their educational achievement.

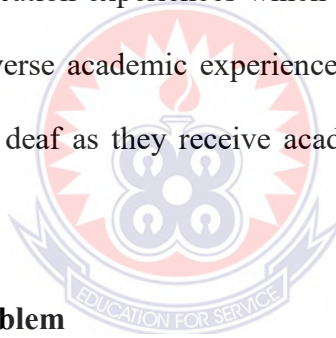
Education plays a major role in serving a long lasting effect on individual's mind and ability. It is a powerful instrument of social change that often initiates upward mobility in the social structure in every society. As, described earlier, the main aim of education is to assist individuals to acquire the necessary knowledge and skills to make them self-reliant, self-confident, and to enable them to contribute meaningfully to society. Nevertheless, Boadi (2016) believes that individuals with hearing impairment are often denied access to education because they are seen as people who are cursed, people who have low intelligent and do not have the capability to positively contribute to the society (Agbengyega, 2003).

The basic support services offered to students who are deaf at all levels of education that practice inclusion are personnel of sign language interpreting and note taking. Because the presence of these professionals in the classrooms allow students who are deaf get involve and actively participate in the teaching and learning environment (Fobi & Opong, 2016).

Kasoa Odupongkpehe M/A Inclusive Basic School is one of the famous established institution that provide education for both the hearing and pupils who are deaf in the Awutu-Senya East Municipality located in Central region of Ghana. The school was established in 1968 under Winneba District Council which used to run Morning Sessions only due to low population. However, over the years due to high population of the school, the school authorities introduced double track system which allowed students to be divided into two different departments namely Odupongkpehe A/C and Odupongkpehe B/D Primary Schools. With respect to the double track system, the school introduced weekly shift-running system which allowed Odupongkpehe A/C and B/D attend weekly Morning and Afternoon sessions respectively. In 2011 academic year, on the 1st September, the school introduced Deaf Education with one

deaf student and one sign language interpreter from University of Education, Winneba under the auspices of Mr. Edward Nti-Nsoawah.

The school is doing well in terms of number of students who are deaf, the total population of students who are deaf and are receiving education at Kasoa Odupongkpehe M/A Inclusive Basic School is 39 students who are deaf. 31 students who are deaf are at the Primary Department and 8 students who are deaf are at the JHS Department with 5 Sign Language Interpreters. The school provides teaching and learning, communication, interpreting, assessment and support services for students who are deaf through the help of teaching and non-teaching staff. For these reasons individuals who are deaf might have diverse teaching and learning, interpreting, assessment and communication experiences which they might share with researchers and intellectuals. The diverse academic experiences might be satisfactory or hostile for the students who are deaf as they receive academic knowledge and skills in an inclusive setting.



1.1 Statement of the Problem

The academic experiences of students who are deaf in inclusive schools cannot be voiced out without hearing from them the significance they make out of what they go through. Moreover, their daily experiences cannot accurately be seen from a distance without paying attention to how they perceive it.

Visits to the school and interaction with some students who are deaf at Odupongkpehe M/A Inclusive Basic school, indicate that students who are deaf are not adequately involved during lessons. Again, in a preliminary visit to the school indicated that interpreting and note taking services in the school are not the best. This has therefore led to a situation where some of the deaf students have lost interest in the school and have resorted to absenteeism. During assessment, students who are deaf do not

perform well because they do not have language skills that will help them to express themselves adequately.

From the ongoing discussion, this study sought to explore the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School.

Finally, in this study the problem relates to the teaching and learning, interpreting services, assessment and note taking experiences of students who are deaf, at Odupongkpehe M/A Inclusive Basic School at Kasoa.

1.2 Purpose of the Study

The purpose of this study was to explore the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School.

1.3 Objectives of the Study

The objectives of the study were:

1. To explore the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School.
2. To explore the interpreting experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School.
3. To explore the assessment experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School.
4. To explore the experiences of students who are deaf on note taking at Odupongkpehe M/A Inclusive Basic School.

1.4 Research Questions

The study is guided by the following research questions:

1. What are the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School?
2. What are the concerns of students who are deaf on interpreting services at Odupongkpehe M/A Inclusive Basic School?
3. How do students who are deaf go through assessment at Odupongkpehe M/A Inclusive Basic School?
4. What are students who are deaf individual disposition towards note taking at Odupongkpehe M/A Inclusive Basic School?

1.5 Significance of the Study

The findings of this study would reveal the academic experiences of students who are deaf in relation to teaching and learning, assessment, interpreting services and note taking in an inclusive education setting at the basic level. Because the academic success of these students seem to be a major concern for parents, guardians, and teachers in the municipality. Again, students and other researchers who are interested in researching into a similar subject may use this study as a source of reference material.

Finally, this study would provide some relevant recommendations to policy makers so they may pay attention to areas they can help to promote in relation to deaf education at Odupongkpehe M/A Inclusive Basic School.

1.6 Delimitation of the Study

This study focused on students who are deaf at Odupongkpehe M/A Inclusive Basic School, Kasoa. Also, the study only explored the academic experiences of students

who are deaf considering their experiences in relation to teaching and learning, sign language interpreting services, academic assessment and note taking services.

1.7 Limitation of the Study

There are two major limitations in this study that could be addressed in future research. First the study interviewed only students who are deaf at Odupongkpehe M/A Inclusive Basic School without giving opportunity for the contributions of hearing students and sign language interpreter in the school. Secondly, the findings of the study cannot be generalized due to the sample size of the respondents of the study.

1.8 Operational Definition of Terms

In order to appreciate the terminologies used in this study some definitions are provided below:

Experience: as cited in Cudjoe (2020), (Cilesiz (2011) defined experience as active involvement in events or activities leading to the accumulation of knowledge or skills. Similarly, experience used in this study describes the events that students who are deaf at Odupongkpehe M/A Inclusive Basic School are familiar with over a period of time that leads to an increase in knowledge and skills.

Students who are deaf: they are individuals whose level of hearing aptitude range from severe to profound and depend on Sign Language interpreting services for academic information.

Inclusive school (IE): refers to various schools that recognize and respond to the diverse needs of their students as well as accommodating the different styles of teaching and learning in ensuring quality education to all through appropriate programs.

Assessment: Assessment plays a vital role in the development of students. It is also used to determine whether or not a student is ready to move up to the next grade (Borghouts, Slingerland, & Haerens, 2017). Assessment used in this study stands for both internal and external examination systems used to determine the academic abilities of students who are deaf for their next level of education.

Sign Language: refer to a wonderful silent language which involves the use of the hands, face and body that is rich in nuances, emotions and beauty (Costello, 1995). More so Ghanaian sign language used in this study refers to standardized sign language used by Ghanaian deaf community in formal setting.

Sign Language Interpreter: refers to a person who uses sign language in an unrestricted school setting for the purpose of facilitating communication between users and non-users of sign language and who is fluent in the languages used by both deaf and non-deaf persons. (Colorado, 2002). In addition, the term sign language interpreter used in this study refers to a qualified individual who has the ability to facilitate communication and understanding among deaf and hearing persons in an educational setting.

1.9 Organization of the Study

This research is divided into five chapters. The first chapter presents the background to the study, statement of the problem, purpose and objectives of the study, research questions, significance of the study, limitations of the study, operational definition of terms and general layout of the study.

The second chapter focuses on the existing literature in the area of the study. It discusses and teases out some of the relevant arguments that exist on this phenomenon. It covers broad topics taking into an account the objectives of the study

and most importantly the theoretical underpinnings and conceptual frame work of the study.

Chapter three presents information on how data was collected. It also provides justification of the methods employed in the study covering sub-topics like the research design, sample size and technique, sources of data, the study area, ethical considerations and the data collection procedures. Chapter four presents data presentation, analyses of data collected during the interviews and discussions of findings.

Chapter five which is the last chapter of the research focuses on summary of the study, conclusion and recommendations of the study. The summary will be a brief writing on the entire work, it will also summarize findings which will briefly address the objectives of the study.

1.10 Summary of Chapter

The chapter one presented the introduction to the entire study. The introduction explained that only a few numbers of studies have been conducted on the experiences of students who are deaf in our country. The present study tries to show the experiences of students who are deaf in relation to assessment, teaching and learning, interpreting services and note taking of students who deaf at Kasoa Odupongkpehe M/A Inclusive Basic School.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviewed related literature on the experiences of students who are deaf in relation to teaching and learning, assessment, interpreting services as well as note taking in an inclusive education setting at the basic level. The literature reviewed include research articles, journals, and books. The literature reviewed also included empirical studies and the theoretical framework supporting the main issues addressed in this study.

2.1 Theoretical Framework

This study was guided by Bronfenbrenner (1993) theory of ecological system to explain the academic experiences of students who are deaf. According to the theory, children grow within multiple social systems which influence every aspect of their lives including education. Components within the various systems potentially influence the capability and educational outcomes of children with special needs. Bronfenbrenner argued that various immediate and distant forces of the system affect individual's development. He classified these systems into five layers; namely, the *microsystem*, *mesosystem*, *exosystem*, *macrosystem*, and *chronosystem* in which the first four are linked together in a system of nested and interdependent structures (Bronfenbrenner 1993). Bronfenbrenner believed that development involves a shared and dynamic relationship between all these five systems, in which each developing person is significantly affected by interactions between numbers of overlapping systems. The microsystem consists of interpersonal relationships and pattern of activities as experienced by individual in a given society of specific physical and

material features (Bronfenbrenner, 1995). This layer has direct contact with the individual as it contains structures, relationships and interactions within the person's immediate environment such as family, school and neighborhood and therefore has the most influence on the individual experiences (Berk 2000; Paquette & Ryan, 2001). The mesosystem which is the second layer directly affects the child and is within the child's immediate environment characterized by direct relationships and interactions. For example, the teacher in the classroom plays an essential role in the school system since he/she is one of the key persons who can help students. With reference to (Allodi, 2000) on interaction between psychosocial aspects and teachers' attitudes, teacher's attitude has an effect on the environment in the classroom with respect to students' learning. Again, it came out that children achieve more in an academic environment where they feel happy since the classroom environment is controlled directly by the teacher. More so, the teacher is seen as a role model upholding the values and standards of education hence children modeling his/her behavior. Furthermore, according to Donald et al (2001), what happens at home and amongst peers can influence a learner's reactions in school. These interactions have a remarkable influence on adopted teaching practices. Berk (2001) also stated that in the case of children with disabilities, their self-efficacy and educational outcomes are in the first instance influenced by the family in the home setting as beliefs and practices of these primary people in the child's life have a direct bearing on the child's development. Beyond the micro and mesosystem, is the exosystem. Bronfenbrenner explained it to be consisting of the settings or events that do not directly involve the child but still influence the people the child has close relationships within the microsystem. That is, the indirect effect impacts the child through the other people in the child's life. For example, if there is financial crisis in a

country, it affects the child's parents who may not be able to meet the needs of the family, there may be stress on the family due to financial insecurity.

The macrosystem refers to the layer which comprises of political, social, economic and cultural patterns which has great influence throughout the interactions of all other layers. It may be thought of as a societal scheme for a particular culture, or a broader social context. For example, the constitution of Ghana serves as a blueprint and makes provision for operations of all educational institutions in Ghana. The constitution guarantees equal access to and a non-discriminatory attitude towards education for all learners. Thus, from the ecological perspective, the constitution of Ghana influences the operations of all the other systems within the ecosystem. This suggests that a broader policy change in the educational system affects other layers in the ecosystem and the application of policies developed has influence on the practice and management of inclusive education. The macrosystem is out of reach of the children but has influence on them (Paquette & Ryan, 2001). It looks at policy makers, educational policies, beliefs and perceptions of persons with disabilities by community members. These predispositions set the context for the kind of education they receive which could affect the academic performance of students who are deaf. For instance, according to Melander (2008), "The negative stereotypes and attitudes the majority of hearing people in Ghana have towards deaf people produce inequalities in education that contribute to lower school performance levels" (p.2).

The last system is the chronosystem, which describes the time frame of development. Swart and Pettipher (2005) describe it as a developmental time frame that crosses through and affects interaction between systems and in turn their influences on individual experiences. Swart and Pettipher (2005) further indicated that a change in any part of the system may affects other systems and individuals since they are

interconnected. Elements within this system can be either external, such as the timing of a parent's death; or internal, such as the physiological changes that occur with the ageing of a child (Paquette & Ryan, 2001). This means that the age of onset and detection of hearing loss and even the time made available for studies which constitute the chronosystem of students who are deaf can influence their academic performance.

2.2 Implications for the Study

The implications of Bronfenbrenner (1993) theory of ecological system for this study are that the academic experiences of students who are deaf in an inclusive setting may be affected by interactions between numbers of overlapping systems. Example, microsystem is the actual social setting in which students who are deaf live, it is the layer closest to the child with which he/she has direct contact. Example include the family, school, peers, neighborhood environments. The interpersonal relationships and pattern of activities of these elements may have influence on the academic experiences of students who are deaf as they have contact with them. For example, the teacher in the classroom plays an important role in the school system since he/she is one of the key persons who can help students who are deaf. Allodi (2000) indicated that, attitudes of teachers have effect on the environment in the classroom with respect to students' learning. Children who are deaf achieve more in an academic environment where they feel happy and comfortable with the academic assistance given to them.

Donald et al (2001), discovered that, what happens at home and amongst peers can influence a learner's responses in school this is because Bronfenbrenner clarified that if there is financial crisis in a country, it affects the child's parents who may not be able to meet the needs of the family, there will be stress on the family due to financial

insecurity. Within this study, these settings or events can be identified as school policies, interactions within the school, community and other stakeholders such as the parents, counselors and other professionals. Even though there is no direct involvement of the child and teacher in these interactions or decision making processes, it has impact on deaf students because as noted by Bronfenbrenner (1995), it could affect children's academic performance due to its direct contact with the component of their microsystem.

2.3 Conceptual Framework of the Study

Conceptual framework of a study is the end results of bringing together a number of related concepts to explain and give broader understanding of the phenomenon under study (Imenda, 2014). It also organizes the key concepts in the study in order to define the focus and direction for the study. The key concepts that are used to explain the conceptual framework of this study are academic experience of students who are deaf, teaching and learning, interpreting services, assessment and notes taking services. These concepts were derived from reviewing the related topics and phrases existing in literature.

Figure 1 above shows a conceptual framework revealing that students who are deaf academic experiences are influenced by factors relating to teaching and learning, interpreting services, assessment and notes taking services.

In terms of interpretations, the conceptual framework shows that when:

- a. Teaching and learning facilities such as text books, subject teachers, projectors and resource centers are adequately provided for the teaching of students who are deaf, their academic experiences would be improved.
- b. Interpreting services are effective in terms of adequate trained number of sign language interpreters and attitudes of interpreters in relation to punctuality, sign language proficiency, the academic experiences of students who are deaf would be satisfactory.
- c. Assessment organized for students who are deaf are improved in terms of language, time and motivations the academic experiences of students who are deaf would be enhanced.
- d. Qualified note taking personnel who will provide simplified notes for students who are deaf, their academic experiences would be optimistic.

In conclusion, when all the above academic facilities are successfully met in providing education to students who are deaf, their academic experiences would be satisfactory.

2.4 Teaching and Learning Experiences of Students who are Deaf

Attitudes of teachers towards inclusion of students who are deaf in a regular school is an important component for successful inclusion, and this determines how the teacher treats the students who are deaf and the whole processes of teaching and learning (Reed *et al.* 2008). Avoke *et al.*, (1998) revealed that, an increasing number of

students who are deaf are granted access to education in both developed and developing countries in inclusive educational settings with special support from teachers who are trained in deaf education (Marschark, et. al., 2015).

The understanding and language development are very important to students who are deaf in discovering their environment and the world around as well as the interaction that goes on within them. The major mechanisms of teaching and learning a language include listening, speaking and signing, writing and reading and these components apply to both hearing and individuals who are deaf (Heaton, 1988). Gudyanga, et. al., (2014) indicated that students who are deaf in inclusive schools are more or less excluded from the teaching and learning that goes on unless measures are put in place to make sure that both hearing students and students who are deaf are fully included in an inclusive setting. An outcome of a research conducted in Kenya on educating students who are deaf in an inclusive setting reveals that teachers must learn how to use the latest techniques and materials for instruction when working with students who are deaf (Adoyo, 2008). Also, more importance should be laid on showing the practical things to students who are deaf so that they can easily understand and participate in a lesson when teaching and learning is in progress, also the more diagrams and other practical materials are being utilized, discrimination against students who are deaf in an inclusive setting would be curtailed.

Facts about the challenges faced in an inclusive education are obvious, however, little knowledge is known about the success of support services such as note-taking, sign language interpreting services for students who are deaf (Stinson, Elliot, & Kelly, 2017; Lang, 2002). According to Rawlings, et. al., (1991) approximately, 75% of students who are deaf and hard-of-hearing students do not graduate from post-

secondary educational institutions due to the fact that these institutions fail to provide the necessary academic support to students who are deaf and who are enrolled in relation to inaccessibility of inclusive education curricula (Department of Education–South Africa (DOE–SA, 1997, 1998; DHET, 2018; FOTIM, 2011). The major barriers faced by students who are deaf are peculiar to the audibility and accessibility of their primary mode of communication (Khan, 2012). In addition, FOTIM (2011) supports that the barriers faced by students who are deaf in an inclusive setting may include inability to hear or lip-read teachers and instructors when teaching and learning is in session, also difficulty when participating in class discussions as well as high levels of background noise and poor sound quality especially in large space or classroom. (DHET, 2018).

Furthermore, Cawthon (2001) postulates that teaching and learning methods for students who are deaf in inclusive classes should engross individualized approaches of teaching that consider the differences and needs of each learner so that every learner could learn effectively because the success of students who are deaf depend on the amount of time devoted to academic curriculum. Again, Adoyo (2004) shows that poor performance of students who are deaf is attributed to inappropriate teaching and learning methods and communication difficulties across the academic curriculum. For this reason, a report on teacher development management strategy conducted by (URT, 2008) shows that education curriculum and teaching related activities such as inappropriate teaching methods, inadequate qualified sign language instructors and others can be barriers to students who are deaf during their learning process.

Attitude of teachers towards inclusion is an important component for successful inclusion and it contributes greatly to academic performance of students. Reed et al.

(2008) considers that this determines how teacher treats their learners and the whole processes of teaching and learning. On the other hand, UNESCO (2009) report on policy guidelines on inclusion in education reveals that teachers' positive attitude towards inclusion depend strongly on their experience with learners who are perceived as disabled, teacher education, the availability of support within the classroom, class size and overall workload of teaching in inclusive classes. Again, Communication problems have become the biggest challenge in the teaching and learning process of students who are deaf in an inclusive setting. The hearing loss of individual does not have a direct impact on the person's development, but then inappropriate exposure of individuals who are deaf to communication obstructs and weakens the ability to access a daily conversation with family and interactions with others (Marschark, 1997). The language acquisition of severely and profound deaf individuals are learned quickly and fully through visual gestures and sign language (Marschark et al., 2002), while individuals with less deafness like slight and moderate may develop their language through spoken language (Knight and Swanwick, 1999). According to Swanwick, & Watson, (2005), the level of proficiency in deaf children play a significant role in language and learning development, this means that when deaf children operate in two languages, such as sign language and spoken/written language at the same time, their level of proficiency affects the range of skills they master. Also, studies have established that many students with hearing impairment develop literacy skills at a slower rate than that of their hearing peers (Gearheart, Weishahn, & Gearheart, 1996). Reading process which associates meaning with sounds and written symbols may be a difficult language learning area for students who are deaf. Luckner & Friend (2006) support the ideology that reading is a complex skill for students who are deaf and these students

may experience difficulty with passive constructions as they appear to persist in interpreting all sentences in terms of the basic English simple sentence, with subject-verb-object order (Andrews et al., 2004). Writing is very complicated for students who are deaf because they often use shorter and simpler sentences, repetitive and less-flexible word order; example could be the structure of Ghanaian Sign Language which is different from the structure of English language in terms of grammatical rules (Luckner & Friend, 2006).

Vocabulary is another area that students who are deaf face difficulties with. Students who are deaf are likely to show less variation in the use of lexical items in their writing of English to indicate the act of consistency (Andrews et al., 2004). Many studies show that students with hearing impairment more often tend to have fewer friends in inclusive schools and they are at risk of experiencing loneliness because the social interactions they have with their hearing peers are limited (Kauffman & Hallahan 2002; Luckner & Friend, 2006; Moores, 2001).

Wilson (2005) shows that lack of resources on the part of authorities concerned determine the academic success of students who are deaf in an inclusive setting. In an inclusive setting the experiences of students who are deaf may be influenced by inadequate supply of specially trained teachers and interpreters in teaching and learning of deaf students, absence of medical care, vocational programs, legal and social services for students who are deaf. Furthermore, Nydal (2008) is of similar view that the practice of inclusive education in Tanzania and other countries face limited resources and inadequate facilities, lack of teachers and other qualified staff. The provision of teaching and learning facilities in inclusive schools are important in teaching individuals with hearing impairment to capture their understanding of a

lesson and these practices go together with teaching and learning methods used by teachers in the classrooms.

2.5 Interpreting services experiences of students who are deaf

World Federation of the Deaf (1993) indicated that Sign Language Interpreting (SLI) is a service which is delivered by a group of hearing individuals to a group of people who are deaf and hearing people who do not understand a common language. The provision of individuals into Sign Language Interpreting Services (SLIS) in many public sectors such as inclusive education is quite recent development in many Africa countries especially Ghana.

Generally, the number of students who are deaf and are entering basic education institutions in Ghana is increasing (Cudjoe, 2020). This increase is in response to demands made by the government and the constitutional obligation to increase access to the education system (Asante, & Sasu, 2015). In order to accommodate diversity of learning needs through addressing barriers to learning, education institutions are required by the government to provide education support services to learners (Asante, & Sasu, 2015). Basic education institutions like Diamond Kids Inclusive School Complex, University Practice Inclusive Basic School, Winneba and Odupongkpehe M/A Inclusive Basic school and other basic education institutions are also known to offer support services such as Ghanaian Sign Language (GhSL), interpreters and academic support services to students who are deaf and hard of hearing. Despite these services, students who are deaf still encounter many difficulties and challenges at the basic level (Cudjoe, 2020). In Ghana, individuals who are deaf are entitled to a full-time interpreting services from the basic level up to any level of education, and the Ghana Association of the Deaf advocates that (GhSL) should be employed exceptionally in the education of students who are deaf (Ghana Association of the

Deaf, 2022). However, a lack of teachers and other educational professionals fluent in Ghanaian Sign Language happen to be the challenges faced in many inclusive schools with students who are deaf (Cudjoe, 2020).

The presence of Sign Language Interpreters in our human institutions seem to be relevant to many people especially students who are deaf. These sign language interpreters are believed to have a thorough knowledge about the language and culture of Deaf Community, be able to comprehend and deliver the meaning of what is being said and be able to improvise in challenging situation in order to overcome unforeseen problems when dealing with students who are deaf (Gerver et al, 1989). Because individuals who are deaf would need support in diverse areas like communication and interaction, cognition and learning, behavioral, emotional and social development, and sensory or physical aspect of development (Agomoh & Kanu, 2011; Marschark, et al., 2013). Total communication involving Sign language interpreting services (SLIS) would help individuals with deafness to gain access to education, employment, health care and the justice system, as well as political participation in our societies (Maertie, & Hilde, 2019). Furthermore, a study piloted by Adoyo (2008) in Kenya on educating individuals who are deaf in an inclusive setting publicized that teachers and sign language interpreters ought to use the latest techniques and teaching materials for instruction when working with students who are deaf. In addition, more emphasis should be placed on showing the practical things to students so that they can easily understand the lesson as well as diagrams should be utilized on the writing boards for explaining concepts to deaf students for more clarifications.

Sign Language interpreters in many societies have unique struggles as they work with the minority population who are handicap in oral communication. All over our social institutions, there are deaf individuals who are among the minority groups both

socially and linguistically, these individuals who are deaf always experience oppression in one way or the other when engaging with others (Bauman, 2004). Our Society needs to have good motives and intentions about the practice of deaf education in the country. In order to safeguard the educational rights of students who are deaf in our various inclusive schools, (Slee, 2011) believes that there is a need for both teachers and sign language interpreters to develop a good mindset and positive attitude towards the practice of deaf education. As people develop positive attitudes towards deaf education, implementing and practicing it becomes easier for authorities concerned and students. Also, people need to know the importance of deaf education for children with hearing impairment, they need to be educated about it and the reasons why they need to develop good behavior towards students who are deaf in an inclusive setting.

Furthermore, Sign Language Interpretation is a required service for students who are deaf in a welcoming inclusive learning environment because communication plays a pivotal role in developing students' positive self-esteem and quality of life (Skjorten, 1996). It is important to secure a favorable learning environment for these children so that these children can constructively learn and compete with other hearing peers.

More so, there is a variety of teaching and learning strategies that can assist all students to learn however there are some specific strategies that are more appropriate in teaching a group which includes deaf students in inclusive classes. According to Cawthon (2001), encouraging students who are deaf to seat in front of a class when lesson is in progress where they would have uninterrupted access to learning is good. Furthermore, this approach is particularly important if the student is a participant of total communication mechanism using an interpreter, lip-reading or using a hearing aid which has a limited range. Again, there is need to provide written materials to

supplement all lessons, materials like tutorials and laboratory meetings to students who are deaf in an inclusive setting are recommended (Bagree, 2011). Announcements made regarding class times, activities, field work should be given in writing as well as other possible mechanisms in order to facilitate teaching and learning of students who are deaf in an inclusive setting (Mpofu, and Sylod, 2013, Myers and Bagree, 2011).

2.6 Assessment Experiences of Students who are Deaf

An assessment plays an important role in the development of students as well as in the education system. It is often used to measure the abilities of students for the next level of education (Goldstein & Leckie, 2016; Lau & Tam, 2017; Borghouts, et al., 2017). Also in the view of Agbeti (2014), assessment plays a fundamental role in any educational system in the sense that the collection of data through examination exercises provide information necessary for informed decisions making. And in order to achieve this outcome, valid and reliable scores have to be generated in order to determine whether learning is really taking place within the classroom (Euphrasia et al., 2014).

More so, assessment in education is often seen as a tool for measuring how much students know and can demonstrate by answering the questions posed in examinations. Its symbol is also intended to grade students and thereby placing a value on them in terms of the level of knowledge they possess (Ecclestone & Pryor, 2003).

According to Broadfoot, & Pollard (2000) the collective conditions under which all students are expected to participate in classroom assessments in the forms of quizzes, tests, exercise, end of term examination, cannot be compromised for students especially those who are deaf when discussing the academic success of students.

However, due to the high rewards placed on excelling in exams, students in recent times employ all that they can to pass their examinations. Since the gate way that leads to the next educational ladder is guarded by examinations. The reward for success and penalty for failure in these examinations has become a major concern for parents, school authorities and students (Peter, 2005). More so, in societies today, more often than not examination results decide individual's future forgetting the fact that every individual is unique, some may excel academically while others can rely on hands-on expertise. The high grades obtained by students are all that matters in an examination-oriented education and this affects the academic achievement of students who are deaf when placed in an inclusive school with their hearing peers (Peacocks, 2011). Research has shown that examination oriented teaching is becoming a matter of global concern (Bray, 2003; Buhere, 2010). In some developed countries like Egypt, India and other Asian and African countries where education is prized, more attention is placed on the effects of examination oriented teaching in their education systems (Bray, 2003). However, the most fundamental problem associated with exam-oriented education system is that the examination distorts students' motivation and learning by over emphasizing the importance of the scores as outcomes and measures of students' abilities (Travelers, 2011). Again Travelers (2011) continued to say that when test scores become the goal rather than self-regulated learning, students invest uneven value and effort in examinations. They may tend to rely on private tutors for everything including homework and exam tips.

According to Republic of Kenya (2011), a research conducted on Findings of a task force on the Framework for Education and Training emphasized that the current education system is examination oriented, it selects students for higher education and often exclude the minority group especially individual with disabilities because these

individuals are often portrayed as failures when included in the academic activities of inclusive education. Good grades obtained at all level of education are indicators of an individual's academic ability and those who do well are held in high esteem by teachers, parents and the public at large (Peter, 2005). For this reasons teachers and parents will do anything at their disposal to ensure good grades are attained, therefore putting the teachers and students in many inclusive primary and secondary schools under great pressure to produce good results without paying much attention to those who are deaf.

Furthermore, several research studies have shown that examinations have some influence on the learning and teaching experience of students and that such influence could either be positive or negative (Irfan, & Mumtaz, 2019). Buhere (2010) suggests that, too much emphasis laid on the output of examinations undermines effective learner assessment because the goal of many inclusive school overburdens students with frequent continuous assessment, extra tuition, remedial teachings and loads of assignment overlooking the presence of students who are deaf whether they are ready to meet the high expectations of the school with their abilities. Some are enrolled for private tuition by parents over the weekend and holidays in order to meet the demands of schools whose core aim is to gain excellent result in order to project the name of their schools. More so, external assessment conducted by independent bodies is therefore considered as a neutral activity that has no impact on teaching and learning but only measures and reports students' level of knowledge and skills. It is known that external assessment, especially the external examination conducted by external bodies like Ghana Education service (GES) in collaboration with West Africa Examination Council (WAEC) in Ghana have higher expectation for candidates and other stakeholders because the results of students determine their placement and

programmes in their next level of education, most often these expectations tend to have a strong influence on what is taught and how it is taught as well as how students learn and what they actually learn (Popham, 1987; Resnick & Resnick, 1992).

Phelps (2000) shows that external assessment has turned out to be the preferred government response to the perceived low quality of education in many countries worldwide. Generally, the justification for introducing external assessment programmes is to pressurize the classroom teachers to improve their practice and students' learning outcomes in the form of upgraded test scores (Amrein & Berliner, 2002; Broadfoot & Pollard, 2000; Black & Wiliam, 1998). Assessment is thus being used as a tool for implementing education reforms that is aimed at improving the quality of education in an inclusive setting because it has some influence on teaching and learning of students. Despite their many benefits, public examinations are criticized for promoting examination-oriented pedagogies as the results of these examinations determine the quality and standards of the schools (Islam, 2016; Kirkpatrick & Zang, 2014). Research suggests that those institutions where examinations are conducted by external bodies and whose performance and reputation are associated with the results usually promote examination oriented teaching practices (Aftab, Qureshi, & William, 2014; Kirkpatrick & Zang, 2014; Rehmani, 2003; Adegoke, 2010).

The introduction of formal assessment in an inclusive setting has more or less placed students who are deaf at a disadvantaged due to the fact that these individuals encounter so many challenges in academic and social setting. Asrat (2013) opines that in our existing social context, children with even minimal hearing loss are at risk academically compared to their normal hearing peers. Undoubtedly, in all-inclusive schools averagely, students who are deaf had a lower grade point average than their

hearing school mates (Carrington, & Robinson, 2006). Another research conducted by Hear-it, (2012) also emphasized that students who are deaf were found to have lower average grades than children with normal hearing in inclusive schools.

Currently, English has become the language of communication and instruction for students in various educational settings and many government policies acknowledge its indispensable role in education. More specifically, it has become a compulsory subject for all students including students who are deaf in grades 1 to 12. And it is used as a medium of instruction across the curriculum for various other subjects. According to (MoE), Ghana Education Service (2007) the admission conditions into higher levels of education totally depend on good passes in English Language. Thus, failure in English language with regards to assessment at any level of Ghana education system impedes one's educational advancement and students who are deaf are not exceptional. Students who are deaf in Ghana are therefore expected to have full access to linguistic content of the education provided for them in inclusive schools. They are also expected to do well in the same English language just as their hearing peers as if they have no exceptionalities. However, measures need to be put in place in order to mitigate the spoken language difficulties of deaf students for them to have the same level of education access and opportunities. The structure of English language used for teaching and assessing students who are deaf in various inclusive settings has to be reevaluated for students who are deaf so that they can effectively compete with their hearing peers in examination.

More so, unlike hearing students who use their good hearing sense to derive lessons accessible in English language even in written form and therefore can master and use English language effectively, students who are deaf do not have the same access to the rules of English language (Easterbrooks & Stoner, 2006) as their hearing peers do.

By the nature of their disability, students who are deaf do not have the same basis for spoken language acquisition just as their hearing counterpart in regular schools. Majority of students who are deaf have not heard sound before and therefore cannot fully access the linguistic content of the education provided for them in their textbooks. The sign language they use which is visual gestural in form, has its own linguistic properties different in form from the English language they are mandated to master. Due to this many students who are deaf find it difficult to compete with their hearing peers in an inclusive school.

2.7 Experiences of Students Who Deaf concerning Note Taking

The subject of deafness in recent times has more or less turn out to be the major phenomenon which is being addressed in many inclusive schools today. Because it affects many abilities of students who are deaf including communication and social functioning. Access to sign language enables students who are deaf to communicate and when the language is made available unto them, these students who are deaf would less be restricted in any social sense (Watermeyer et al., 2006).

Note taking is one of the basic service that facilitates the academic success of many students who are deaf in a class designed for students with normal hearing. Many authors have attested to its importance (English, 1993; Saur, 1992; Osguthorpe, Wilson, Goldmann & Panara, 1980; Wilson, 1996). Having an interpreter guarantees equal access to the classroom but having a note taker guarantees equal access to the information from the class discussions (Wilson, 1996). Formal note taking services was introduced around the late 1960's (Stuckless, 1999), before that deaf and severely hard of hearing students in college tended to do without notes. They rely exclusively on the textbook for assessment. Sometimes they fall on portable audiotape recorders; that is, they record their lessons and ask someone to transcribe them on paper. In

some instances, they would ask a hearing fellow student if he/she might borrow the classmate's notes. Notes are central to the success of a student in the education system, but the problem is that many deaf and hard of hearing students find it difficult to take and rely exclusively on their own notes. Note taking services, like other services such as interpreting, teaching and the use of assistive listening devices, assist students who are deaf in gaining equal access to information from the classroom.

Note taking cuts across all disciplines, it serves as a source of reference for students who may need better understanding on a subject. It also helps students develop the skills of academic writing. Note taking is an essential tool in many information-transmission situations. At the basic level, note taking allows students to gain access to the scope of their syllabus, gather information from teachers, books, or any other situation that they will later have to memorize or use in order to successfully complete their academic program (Saur, 1992).

For many students, an important means for learning is through notes that summarize and record information during the class sessions. Hearing students are able to take notes for themselves. In contrast, students who are deaf often rely on notes taken by others because it is difficult if not impossible, for them to simultaneously attend to their interpreter and take notes (Hastings et al., 1997). Generally, peer and certified note takers handwrite the notes that are provided to mainstream students after classes. Research on note taker's notes indicates that students who are deaf view these notes as a valuable study aid (Hastings et al., 1997). These note takers' notes provide students with opportunities to study information from class, to actively reorganize the information to fill in missed information and to clarify misunderstood material taught in class (Hastings et al., 1997). In considering the note taking and studying of hearing

students, Kierwa et al. (1991) discussed that students review notes in order to remember what happened in class.

According to Lewis, Farris & Greene, (1994), equally students who are deaf in mainstreamed settings use note taking services than any other available support service. For this reason, more expectation is always required from note takers due to the roles they play in the academic success of students who are deaf. Henderson, et al., (1994) wrote that note takers must possess the following qualities:

- A good listener
- Intelligent
- Reliable
- Has excellent attendance and punctuality
- Be able to produce legible, clearly and organize accurate notes for their readers
- Has understanding of the language issues faced by many deaf and hard of hearing students
- Has the ability to maintain confidentiality
- Has the ability to maintain a good rapport with the student and their interpreters.

2.8 Summary of Chapter

This chapter reviewed related literature on the research topic, the theoretical framework and conceptual frame work. The chapter was discussed under the following strands: the theoretical framework and conceptual framework, teaching and learning experiences, experiences on interpreting services, experiences concerning the assessment and note taking of students who are deaf at Odupongkpehe M/A Inclusive Basic School. From the literature reviewed, no study explored the academic

experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. Hence, this study intends to fill the gap in the literature that is related to experiences of students who are deaf in relation to teaching and learning, interpreting services, assessment and note taking.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the research methodology, and discusses the justifications for the approach used in the study. The chapter also presents the study area, research approach and design, population, sample size, sampling technique, instruments for data collection, data collection procedures, data management and ethical considerations.

3.1 Study Area

The study was conducted at Odupongkpehe M/A Inclusive Basic School for deaf and hearing pupils. The school used to be a regular setting for its students since 1968 until September, 2011 when inclusive education was introduced. The school is located in the Awutu Senya East Municipality along the Accra-Cape Coast Road behind the Kasoa Old Market. Odupongkpehe M/A inclusive Basic School is the only school among all the public schools in Awutu Senya East Municipality providing education for both students who are deaf and those who are hearing. The inclusive education was introduced in the school as a result of the scarcity of basic schools for deaf individuals in the district. The medium of instruction used among teachers and students who are deaf is Signing Exact English Language. This strategy was adopted to bridge the communication gap between teachers and students who are deaf, and to equip students who are deaf to have knowledge about the structure of English Language since they would be competing with their hearing colleagues in assessment tests. Also,

The total enrolment of students who are deaf in the school was 39, comprising 20 boys and 19 girls. The Primary and the JHS departments consist of 31 and 8 students who are deaf respectively with 5 Sign Language Interpreters and one Resource Person.

3.2 Research Approach

Qualitative approach was adopted to examine the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School, Kasoa. Qualitative research approach was adopted for the study because the study sought to explore students who are deaf lived experiences within the academic setting. Students who are deaf would express their academic lived experiences in relation to teaching and learning, interpreting services, assessment and note taking in an inclusive setting. This procedure allowed data to be collected through focus group interview and observation. Sherry (1999) postulated that the qualitative research design is mainly used to gain deep understanding of experiences, reasons, opinions and motivations of issues under study.

The qualitative research approach using semi-structured techniques in data collection (Dykema et al., 2010), allows probing and questioning of respondents based on their responses, and also captures both verbal and non-verbal gestures, symbols. This in turn clarifies the experiences of the respondents and helps to reveal their true behavior and perception about a phenomenon being researched (Neuman, 2012). In qualitative research, words are emphasized in the process of data collection and interpretation, (Creswell & Creswell, 2018) described qualitative research as an approach that is applicable for social science inquiry, particularly that which deals with human behavior and experiences. The goal of most qualitative studies is not about generalization, but rather, to bring together a rich, contextualized understanding of

some aspect of human experiences through the intensive study of particular issues (Creswell & Clark, 2011). Therefore, for this study, the qualitative research was proven to be the most appropriate method since it allowed the researcher to collect primary information from students who are deaf at Odupongkpehe M/A Inclusive Basic School.

3.3 Research design

This study employed a phenomenological design because it focused on the commonality of lived experiences of students who are deaf in an inclusive setting. The objective of the approach was to arrive at a description of the nature of the particular phenomenon (Creswell, 2013). Ary, Jacobs, Sorensen, & Razavieh (2010) explained that phenomenological studies are meant to explore participants' lived experiences of a phenomenon.

Therefore, this study allows students who are deaf to share their lived experiences in an inclusive school environment at a basic level at Odupongkpehe M/A Inclusive Basic School.

3.4 Population

The population for the study consisted of 8 students who are deaf at Odupongkpehe M/A Inclusive Basic School. Students who are deaf were chosen from the Junior High School (JHS) 1 & 2 levels. This is because there was no deaf student in the JHS 3 class and students chosen from the JHS 1 & 2 classes were all deaf students who could use sign language very fluently. The only exclusion criteria for the study were students who are not in the JHS department. Eight (8) of these students who are deaf were purposively sampled for the study because they all belong to the JHS department.

However, information about the deafness of my target population was not given because no assessment has been conducted on the degree of hearing loss on the students. Parents were asked to take their children for hearing assessment but no results have been given to the school to work with.

Table 1: Target population for the study

Form	Population	Male	Female
JHS 1	4	2	2
JHS 2	4	0	4
Total	8	2	6

The target population for the study was eight students who are deaf in the Junior High School (JHS) 1 & 2 at Odupongkpehe M/A Inclusive Basic School. JHS 1 comprised of 4 students who are deaf; who were two males and two females. JHS 2 comprised of 4 students who are deaf and these students were all females.

3.5 Sample Size

The sample size for the study was eight students who were deaf, because they were the only available students who were in the JHS department. These students consisted of two males and six females aged between 15 and 19 years. They were sampled from the Junior High School level, precisely JHS 1 and 2.

Table 2: Sample Size of the Participants

Form	Sample Size	Male	Female
JHS 1	4	2	2
JHS 2	4	0	4
Total	8		

The target population was used as the sample size for the study because they were all students who are deaf. The sample size was eight students who are deaf in the Junior High School (JHS) 1 & 2. JHS 1 comprised of 4 students who are deaf; who were two males and two females. JHS 2 comprised of 4 students who are deaf and these students were all females.

3.6 Sampling Technique

Homogeneous sampling technique was used to select eight (8) deaf students who are deaf for the study. Homogenous sampling is a purposive sampling technique whose core aim is to achieve a similar sample, that is, a sample whose components share the same or similar characteristics or traits such as group of people that are similar in terms of age, gender, background, status. This study chose homogeneous sampling technique for data collection because the research questions being addressed are specific to students who are deaf at Odupongkpehe M/A Inclusive Basic School.

3.7 Instrument for Data Collection

3.7.0 Semi-structured Interview Guide

Semi-structured interview guide was used to gather firsthand information from respondents who had personal experiences related to a particular research topic of interest. The study used a semi-structured interview guide as data collection instrument to elicit data from the participants because it allowed the researcher to

explore the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. Also, it allowed the researcher to obtain in-depth information and evidences from the participants.

The semi-structured interview guide was designed strictly in line with the research questions which sought information from respondents on their academic experiences in relation to teaching and learning, interpretation services, assessment and note taking experiences at the JHS level. The language for constructing the semi-structured interview questions was English Language because that is the official language of instruction for students who are deaf at Odupongkpehe M/A Inclusive Basic School.

3.7.1 Observation Checklist

An observation checklist is a data collection instrument that enables an observer to record whether a phenomenon is existing or not in a particular setting. In this study, an observation checklist was used to gather information in the class rooms of students who are deaf at Odupongkpehe M/A Inclusive Basic School during lessons. This is because it created opportunity for the observer to record information as it occurred in the class rooms.

The observation checklist that was used to record information from the class rooms during lessons was designed strictly in line with the research questions which sought information on respondents' academic experiences in relation to teaching and learning, interpretation services, assessment and notes taking experiences of students who are deaf at the JHS level. Also, the observation checklist was structured into four sub-headings, each heading contained at most five questions addressing the research questions of the study. The language used for developing the observation checklist was English Language because that is the language of instruction for students who are deaf at Odupongkpehe M/A Inclusive Basic School.

3.7.2 Validation of Instruments

The semi-structured interview items for focus group interview and observation checklist for data collection were developed by the researcher which was further shown to colleagues from the Special Education Department of University of Education, Winneba for corrections before discussing it with the researcher's supervisor, a professional in the field of Deaf Education for final comments before they were administered for data collection. Both data collection instruments covered the key themes raised in the research questions.

3.7.3 Pre- Testing

The semi-structured interview guide for the collection of primary information from the research respondents was first pre-tested among three Junior High School Students who are deaf at University Practice Inclusive Basic School, Winneba. This was because respondents had the characteristic relevant to the study. This also allowed for the modification of the interview questions as well as clarification of the semi structured interview guide.

3.8 Trustworthiness

Trustworthiness refers to the degree of confidence in data, interpretation and methods used to ensure the quality of a study (Pilot & Beck, 2014). In order to establish trustworthiness in this study, the four elements of trustworthiness which include credibility, transferability, dependability and confirmability were used in the research procedures (Guba, 1992).

3.8.0 Credibility

Credibility in research reveals whether the findings of a study are correct and accurate. It also involves how well a researcher establishes confidence in research

findings based on research approach, respondents and context. For the researcher to achieve credibility in this study, a qualitative approach was employed to explore the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. Taking into considerations the research questions of the study, a semi-structured interview guide and observation checklist as data collection instruments were used to elicit primary information from students who are deaf at Odupongkpehe M/A Inclusive Basic School. A thematic approach was then used to categorized data collected on the field through coding for analyses and then discussed with supporting literature.

3.8.1 Transferability

Transferability refers to the extent in which the findings of the research can be generalized or transferred to other contexts. One way of establishing transferability is to provide a stable description of the population studied by describing the demographics and geographical boundaries of the study. For this study, the researcher tried to meet that by providing an explanation and description of the data collection, participants and context of the study. Additionally, the researcher provided quotations to give the reader a clear perspective of the original data. The researcher presented verbatim expressions from the participants' interviews, this was important to avoid making claims without any evidence.

3.8.2 Dependability

Dependability in research means that outcomes from instruments used in collecting data are stable and consistent (Creswell, 2012). That is, scores should be nearly the same when researchers administer the instrument multiple times at different times. To ensure the dependability of the interview items, the interview guide was discussed

with the researcher's Supervisor; a Professional in the field of Deaf Education before it was administered. Competent sign language users who are interpreters at Odupongkpehe M/A Inclusive Basic School assisted the researcher to administer and collect information from the research respondents needed by the researcher. One of the interpreters served as an interpreter interpreting the research questions to the respondents while the other person functioned as a note taker writing down the responses of the participants of the study. Also, after the data collection process, the two sign language interpreters together with the researcher watched the videos recorded during the interviews with the notes taken in order to ensure accuracy and consistency of the findings.

3.8.3 Confirmability

Confirmability in research refers to the ability of a researcher to demonstrate that data gathered during the study represent the participants' responses and not the researcher's biases or perspectives (Polit & Beck, 2012; Tobin & Begley, 2004). For this study, the researcher demonstrated confirmability by recounting how analyses were established. The data analyses of the study were the findings that were derived directly from the participants' responses. In reporting a qualitative research like this study, direct quotes from the participants were used to depict each emerging theme.

3.9 Procedure for Data Collection

3.9.0 Interview

To begin the data collection process, a permission to enter the school for the study was requested from the Headmistress of Odupongkpehe M/A Inclusive Basic School, Kasoa. To make this permission possible an Introductory Letter was obtained from the Head of Special Education Department of University of Education Winneba,

introducing the researcher as an MPhil student of the University of Education, Winneba. Also, because the research involved students with special needs, a written consent letter was sent through the Headmistress to Parents Teachers Association (P.T.A) Chairman and parents of students who are deaf in order to give their consent for the respondents to participate in the study.

To administer the interview guide to the participants the researcher visited the school to explain the purpose of the study to the Headmistress, teachers and participants. Participants were assured of the confidentiality of all information they would give to the researcher. The researcher explained how to administer the semi structured interview guide to two sign language interpreters of the school who served as research assistants. These interpreters were teachers who had acquired a bachelor degree in Special Education at University of Education, Winneba. These two research assistants were chosen because they use the sign language (SL) fluently. The two research assistants assisted in the administration of the interview one served as an interpreter while the other a note taker. The interpreter helped to arrange for a venue where the focus group interview was held, mobilized the students who are deaf to participate in the study. She also interpreted the research questions on the semi structured interview guide to the respondents for the focus group interview.

More so, the presence of the note taker did a great service to the success of the study. This is because she was present throughout the focus group interview writing down the responses of the participants. Since Signing Exact English Language which follows the Grammar of English Language is the official language of communication between interpreters and students who are deaf at Odupongkpehe M/A Inclusive Basic School, the note taker did not encounter any challenge with respect to language, so there was no transcription for the study.

The research assistants were oriented on the purpose of the study and intention of each item on the semi structured interview guide. The researcher used a focused group interview to elicit information from the participants. All participants were put together in a group consisting eight (8) participants. The researcher used one (1) day to conduct the focus group interview. The discussion was held in the school's Library with permission from the head teacher. One of the research assistants issued instructions to participants on how to respond to the questions on the semi structured interview guide while the other research assistant served as a note taker. The note taker was there to write down verbatim responses of the participants. The interview sessions lasted between 120 minutes and because participants needed more time to provide their responses.

The participants were allowed to express their feelings and experiences without undue pressure on them. The interview was conducted using Signing Exact English Language because that is the official language of instruction for academic purposes among students who are deaf in the school. Videos recorded during the interview by the researcher were watched and compared to notes taken at the end of the focus group interview by research assistants for validity and later translated into Microsoft word under each research question by the researcher for analyses.

3.9.1 Observation

After focus group interview, two observations schedules were carried out by the researcher in the classrooms in order to confirm or disconfirm what the respondents said during the focus group interview. An observation checklist developed by the researcher based on the research questions was used to confirm or disconfirm information given by students who are deaf in the class room during lessons.

The researcher's observations primarily took place in the classrooms observing the teaching of English Language. Although the researcher was present during teaching and learning, she did not participate fully in the lesson either as a teacher or as a student. However, she was not completely detached from the setting because during the lesson, she took notes of how students who are deaf were involved in teaching and learning process, how they asked and answered questions in class as well as their interaction their hearing colleagues and sign language interpreter.

The availability of teaching and learning materials and how they were put to use during the lesson was also an area of concern. The researcher observed that the available teaching and learning materials used for teaching students who are deaf in the school was text books. In every lesson, as the hearing teacher delivered the lesson the sign language interpreter was present to interpret the lesson to students who are deaf. Furthermore, the language used for instruction was crucial to note and how it influenced effective communication between the sign language interpreter and the learners. While sign language was the preferred language of instruction, it was important to note which sign language was used between Ghanaian Sign Language, a mixture of Ghanaian Sign Language signs and American Sign Language signs. However, it was surprising to the researcher to discover that the language used for instruction was neither Ghanaian Sign Language nor a mixture of Ghanaian Sign Language and American Sign Language but Signing Exact English Language which follows the rules of English Language. Generally, observation as a research tool was useful in this study because it made it possible for the researcher to confirm or disconfirm what the respondents said with respect to their academic experiences in the classrooms setting rather than just relying on what was said by deaf students during focus group interview. Issues that participants may have thought were insignificant

and may have gone unreported were captured during the observations. For instance, the researcher observed that the interpreter was the only person rendering academic services to students who are deaf. For instance, she interpreted lessons for the deaf students, went round correcting students' notes after each lesson, and ensured that students' class exercises were submitted and marked.

It was also observed that the use of chalkboard has positive impact on the academic experiences of students who are deaf as compared to just finger-spelling and signing. It was only after observing them that the researcher noted the extent to which it contributed to their involvement in the teaching and learning process and how it created a sense of fulfilment when others in the class saw what they were capable of doing.

Finally, after the data collection, the respondents together with their head teachers, interpreters and other individuals who contributed positively were appreciated for their warm receptions and information given for the success of the study.

3.10 Data Analysis

The researcher used semi-structured interview guide and observation checklist to obtain primary information from the respondents. The researcher collected the data which were written down during the interviews by the notes taker and later translated into Microsoft word on the researcher's personal computer under each research question. After the data was collected, the researcher ensured that the information was kept locked away from others in order to ensure the confidentiality of the information given. The data were read thoroughly by the researcher to identify common theme that run through them for categorization into themes in relation to the research questions. Evidences from the observation checklist together with quotes from respondents were used to support the respective themes that emerged. The researcher

developed codes with the emerging themes from the data collected. Coding allows for the categories and patterns emerging from data to be decided in advance and it facilitates the interpretation of smaller units (Bogdan, & Biklen, 2007.)

The data were analyzed using a content analysis to themes that came up during the data collection. The themes that emanated from the data provided were discussed based on literature.

3.11 Ethical Considerations

According to Cahana (2008), ethical consideration is very relevant in research because it promotes respect for the dignity of research participants, helps researchers obtain full consent from their participants prior to the study, ensures the protection of the privacy of research participants, helps to promote the avoidance of any deception or exaggeration about the aims and objectives of the research as well as any possible conflicts of interests.

This study acknowledged the ethical considerations in research because it allowed respondents' participation on the basis of informed consent. Informed consent involved providing sufficient information about the implications of participation and freely giving respondents the decision as to whether to participate or not without any pressure or coercion. For this reason, the researcher sought consent from the participants, their head teacher, parents and their PTA chairman before the study commenced. The respondents were also assured that the study was for academic purposes only, and that any information given would be handled with confidentiality. They were also assured that at any point of the research they could withdraw from the research if they felt uncomfortable participating in it.

The use of offensive, discriminatory, or other unacceptable language were avoided in the formulation of the semi structured interview guide used for participants. Finally,

the acknowledgement of the works of authors, expressions, statements, arguments among others, used in any part of the study was duly cited.



CHAPTER FOUR

PRESENTATION, ANALYSIS OF RESULTS AND DISCUSSIONS OF FINDINGS

4.0 Introduction

The purpose of the study was to explore the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School, Kasoa. Specifically, the study explored the academic experiences in relation to teaching and learning, interpreting services, assessment and note taking services. In order to achieve these objectives, the researcher used semi-structure interview guide and observation checklist to gather information from students who are deaf at Odupongkpehe M/A Inclusive Basic School, Kasoa.

This chapter provides the analyses of the findings of the study. Four research questions that guided the study were used.

Research Question 1: What are the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive basic school, Kasoa?

The themes that emerged from the analyses of research question 1 were:

- Involvement of students who are deaf in teaching and learning process
- The academic assistance students who are deaf receive from their hearing colleagues
- Experiences on teaching and learning materials used by teachers in teaching students who are deaf in the school.

Involvement in Teaching and Learning

Concerning the first theme which was how students who are deaf are involved in teaching and learning process, the following comments indicate what the students said.

One student said:

Majority of the teachers do involve us in class activities. Our Math teacher will always ensure that he asks each of us a question before his class ends. So I prepared before going to his class. (A verbatim expression of student B)

Another student indicated:

With our participation in class, some of the teachers encourage us and allow us to respond to question in class and they give a detailed clarification to questions we ask. Some make sure that we have a group when we are given something to do in the classroom. (A verbatim expression of student G)

Another replied:

I write class exercises, answer questions in class; sometimes our Math teacher calls me to work the answers on the board. (A verbatim expression of student A)

Another student added:

Some of our teachers ask us if we understand or have some questions for them before we move on to a new topic. (A verbatim expression of student C)

The above responses indicate that the students who are deaf were involved in the teaching and learning process. Students who are deaf are not isolated in the teaching and learning process of the school. They are given the opportunity to express themselves during lessons. For example, the Mathematics teacher and other teachers ensured that students were involved in class activities. And students were also encouraged to attempt to questions and ask questions for further clarifications.

Academic Assistance by Hearing Colleagues

Regarding the second theme which revealed the academic assistance students who are deaf receive from their hearing colleagues in class, the following comments were made.

One student said:

When the teacher is teaching and I don't understand the assistance I get from my hearing colleagues is that they give me exercises to practice at home. (A verbatim expression of student D)

Another student added:

The hearing colleagues in my class have been involving me in project works. They always inform me of the time and place of the meeting even though we always meet at the library whenever we have a group task to perform. (A verbatim expression of student F)

Another student opined:

My hearing friends have always tried to help me out when I need help. Some give me their notes to copy whenever I missed class. It's fun, I thought they will isolate themselves when I came to school but they are so free with all the deaf. (A verbatim expression of student B)

another student narrated:

Some of our hearing colleagues encourage us to attend group discussions. Even though we may not have anything much to bring on board, they want us to be there so that we can also listen to whatever they will say and learn together. I must say I learn much from such interactions so I don't miss such opportunities. (A verbatim expression of student F)

The above comments show that most students who are deaf at Odupongkpehe M/A Inclusive Basic School feel happy and comfortable when interacting with their hearing colleagues within and outside the classroom. The academic contributions of hearing students in the lives of deaf students encourage deaf students to feel

comfortable in the learning environment. For instance, students who are deaf ensured that any time there is group discussion they would attend just to have interactions with their hearing colleagues.

Teaching and Learning Materials

The last theme that emerged from the research analysis of research question one was the experiences of students who are deaf on teaching and learning materials used in the school. The following comments were made by the students.

One student said:

Sometimes when class is in session and our science teacher is teaching from our text book, I find it difficult to understand. (A verbatim expression of student E)

Another student added:

Some of the expressions in our text books are very difficult to comprehend when studying alone. (A verbatim expression of student G)

Another student opined:

Because I'm not familiar with some of the words in our text books, I find it difficult to understand the information in my text books and sometimes our interpreter finds it difficult to explain things to us. (A verbatim expression of student B)

Another student added:

The materials used in teaching Social Studies and English Language in the school are good for me although sometimes I don't understand some expressions from the text book. (A verbatim expression of student C)

From the above expressions, the understanding on the teaching and learning materials especially text books used in teaching students who are deaf at Odupongkpehe M/A Inclusive Basic School happen to be unsatisfactory. This is because students who are deaf find it challenging to understand the contents of the text books recommended for

teaching students in the school. They sometimes struggle to understand even if they rely on their interpreter for further clarifications.

Research Question 2: What are the experiences of students who are deaf concerning interpreting at Odupongkpehe M/A Inclusive Basic School, Kasoa?

With regards to research question 2, the themes that emerged from the data analyses were:

- How students who are deaf access information in the absence of interpreter
- The proficiency of sign language interpreter
- Punctuality of sign language interpreter
- The kind of academic assistance rendered to students who deaf by interpreter
- Sign language proficiency of hearing teachers.

Access to Information in the absence of Interpreter

Concerning the first theme that emerged from research question 2, which was how students who are deaf have access to information during lessons in the absence of interpreter, the following comments were made by the students.

One student said:

Whenever our interpreter is not in class, I revise my notes to answer questions in class (A verbatim expression of student C)

Another student added:

Sometimes, I access instructions through lip-reading to obtain some hints as to what the teacher is saying. Although I find it difficult to get what the teacher says. (A verbatim expression of student D)

Another student expressed:

Sometimes I look at the examples given by the teacher on the blackboard and copy them into my note book. (A verbatim expression of student H)

Another student added:

In the absence of the interpreter, I get help from my hearing colleagues by collecting their notes after class. (A verbatim expression of student A)

The above comments indicate that in the absence of an interpreter during lessons, students who are deaf were not left idle they employed possible communication means such as lip-reading to access information in class. Majority of them relied on the notes of their hearing colleagues after lesson in order to gain access to what was taught in class in the absence of their interpreter.

Sign Language Proficiency of Interpreter

The second theme that emerged from the data analyses was the proficiency of sign language interpreter in class, the comments below were made by the students.

One student narrated:

Their services are not always effective. The reason is that, if the interpreter is good, we enjoy the class but if the interpreter is not good the class becomes boring. (A verbatim expression of student F)

Another student said:

Sometimes we don't understand what the interpreter signs. (A verbatim expression of student C)

Another student added:

The interpreting service provided by our Sign Language interpreter helps us to improve upon our academic work. For example, during English Language lessons, since our interpreter uses the structure of English Language for interpreting the lessons to us we understand the lesson. (A verbatim expression of student G)

Another recounted:

When the interpreter interprets during English and Social Studies I understand to some extent. (A verbatim expression of student B)

The above comments indicate that students who are deaf were not happy about the sign language proficiency of their interpreter. Some of them described the proficiency of their interpreter as ineffective to some extent because they find it difficult to understand their interpreter when teaching and learning is in process. However, others acknowledged the role of their interpreter as satisfactory because it was commented that sign language interpreter helped students understand English and Social Studies during lessons.

Punctuality of Sign Language Interpreter

Another theme that emerged from the data analyses was that the interpreter was regular in class whenever she had class. The students reported the followings.

One student narrated:

Our interpreter is always punctual to class. (A verbatim expression of student D)

Another student added:

She is regular. Whenever she is in school she makes sure she attends to us when teaching and learning is in progress. (A verbatim expression of student H)

With the above comments as narrated by the students the interpreter's attitude to class is satisfactory because she was not only punctual and regular in class and also attended to deaf students learning needs during lessons.

Learning Assistance by Interpreter

Concerning assistance given to students who are deaf by their sign language interpreter with regards to their homework, class exercises and project works. The students narrated the followings.

One student said:

Anytime we find it difficult in answering our homework, we make a video call with our interpreter on mobile phone for further clarifications. (A verbatim expression of student A)

Another student added:

When we are given class exercises after lesson the interpreter comes to us individually to explain the difficult questions to us and how to answer the questions. (A verbatim expression of student C)

Another student added:

With our project work we are always put in groups so the interpreter goes round to interpret the difficult word to us. (A verbatim expression of student G)

The comments above indicate that the academic assistance rendered to students who are deaf by their interpreter is satisfactory because the interpreter was always available to attend to the academic needs of her students. For instance, during class exercises and group works she assisted the students who are deaf understand what they need to do. More so, anytime the students contact her through a video call on the phone with regards to students' home work, she always made herself available to her students.

Sign Language Proficiency of Hearing Teachers

Finally, concerning the sign language proficiency of hearing teachers at Odupongkpehe M/A Inclusive Basic School, the following comments were made by the students.

One student said:

The hearing teachers we have in the school don't know the sign language. (A verbatim expression of student D)

Another student added:

Some will write the questions on paper or blackboard in class. (A verbatim expression of student A)

Another student added:

Even though hearing teachers use signing to communicate with us but it is difficult to understand them. I wish they were deaf teachers because they can help communicate better than the hearing teachers. (A verbatim expression of student C)

The comments above indicate that the sign language proficiency of hearing teachers at Odupongkpehe M/A Inclusive Basic School is unsatisfactory. Students who are deaf indicated that hearing teachers could sign to some extent but their signing was ineffective.

Research Question 3: What are the assessment experiences of students who are deaf at Odupongkpehe M/A Inclusive basic school, Kasoa?

With regards to research question 3, the following themes emerged from the data analyses:

- How often is assessment conducted in the school
- Any special attention given to students who are deaf in examination
- Difficulties encountered with respect to language used in answering examination questions
- The structures of examination questions on question papers

Degree of Assessment conducted in the school

Concerning the first theme that emerged in research question 3, which was how often is assessment conducted at Odupongkpehe M/A Inclusive Basic School, the following comments were made by the students.

One student said:

At the end of every lesson our teachers often give us class activities and homework to do in our exercise books. (A verbatim expression of student)

another student added:

Our end of term exams is written 3 times a year which is at the end of every academic term. (A verbatim expression of student)

Another student opined:

We also write assessment test at the end of every month especially Mathematics and Integrated Science. (A verbatim expression of student G)

The above comments indicate that the rate at which assessment is conducted in the school for students who are deaf at Odupongkpehe M/A Inclusive Basic School in measuring students' academic ability is encouraging. For example, teachers often ensured that class exercises, homework were given to deaf students after every lesson. Also, the Mathematics and Integrated Science teachers ensured that students write assessment tests at the end of every month.

The structure of examination questions

Also, on the structures of examination questions found in the question papers of students who are deaf, the students narrated the following.

One student said:

During our end of term examination, I see different types of exam questions on our question paper. Such as essay type questions, multiple choice questions, true/false, fill-in questions. (A verbatim expression of student D)

Another student added:

We normally write examinations which are structured into two forms; objective questions in "Section A" and essay questions in "Section B" during class test and end of term examination. (A verbatim expression of student E)

The above comments show that the structure of examination questions used in assessing the academic ability of students who are deaf at Odupongkpehe M/A Inclusive Basic School is quite adequate. Students who are deaf indicated that during examination they find several types of assessment questions such as essay type questions, multiple choice questions, true/false, fill-in questions.

Any Special assistance given to deaf students during assessment

Concerning theme that emerged on attention given to students who are deaf in examination, the following comments were made by the students.

One student said:

During examination, time allocated to our paper is enough for us to answer our questions. Additional one hour is added to our time. (A verbatim expression of student C)

Another student added:

Before we start our end of term exams, the interpreter comes to inspect whether we have all the materials needed for the paper. She goes ahead to explain the rules and regulations of the exams and difficult questions to us to understand. (A verbatim expression of student B)

From the above comments, academic assistance given to students who are deaf in assessment is quite satisfactory. For instance, students who are deaf indicated that during examination, some sort of academic assistance such as extra time, interpreting services by interpreter, etc. were given to them in order to finish writing their exams.

Language used in writing Examination Questions

Concerning the language used in writing examination questions, the following comments were made.

One student said:

I wish we would be asked to sign the essay questions in exams. (A verbatim expression of student G)

Another student narrated:

Me sometimes I understand the questions but my problem is how to express myself with the English language to pass. (A verbatim expression of student D)

Another student reported:

Since we are included with our hearing colleagues, we are graded with the English Language structure because of that we don't perform well in the exams (A verbatim expression of student E).

The comments above indicate that most students who are deaf find it difficult expressing themselves with English Language during examination because of the language experience that they have been exposed to. Some indicated expressing themselves in English Language during examination seem to be more challenging

than their native sign language this has been a major contributing factor to poor performance of students who are deaf at Odupongkpehe M/A Inclusive Basic School.

Research Question 4: What are the experiences of students who are deaf on note taking at Odupongkpehe M/A Inclusive Basic School?

Concerning research question 4, the following themes emerged from the data analyses:

- The effectiveness of note taking services rendered to students who are deaf at Odupongkpehe M/A Inclusive Basic School.
- How students who are deaf access information in the absence of notes taken during lessons in class at Odupongkpehe M/A Inclusive Basic School
- Support services that are given to students who are deaf at Odupongkpehe M/A Inclusive Basic School

The effectiveness of note taking services

Concerning the first theme that emerged in research question 4, which was the effectiveness of note taking services rendered to students who are deaf at Odupongkpehe M/A Inclusive Basic School, the following comments were made by the students.

One student said:

The school don't have any official notes taker for students who are deaf in this school, but our interpreter helps us. (A verbatim expression of student H)

Another student added:

Our interpreter sometimes makes some notes for us in our note books after lessons but not into detail. She only goes through our notes to make some corrections. (A verbatim expression of student A)

The comments above indicate that there is no official note taker for students who are deaf at Odupongkpehe M/A Inclusive Basic School when it comes to providing clarified notes to students who are deaf. However, the interpreter of the school has become a resource person providing note taking services for students who are deaf during lessons.

Access to Information in the absence of interpreter as a note taker during lessons

The second theme that emerged from data analyses was access to information in class by students who are deaf, the respondents gave their accounts as follows:

One student said:

When the interpreter is not there I copy note from my text books. (A verbatim expression of student D)

Another student added:

From class three I have been writing my notes so I can cope without note taker. (A verbatim expression of student G)

Another student reported:

In the absence of an interpreter, I sit and wait to collect notes from my friends to copy after class. (A verbatim expression of student C)

Another student expressed:

Sometimes, I access instructions through lip-reading to obtain some hints as to what the teacher is saying but I find it difficult to understand what the teacher is saying. (A verbatim expression of student F)

The above comments show that in the absence of the interpreter who sometimes performs the role of note taker, students who are deaf have to copy and make their own notes from their textbooks others lip-read from hearing teachers since the school does not have any official note taker who will assist students who are deaf have access to classroom information during lessons.

Support Services

Concerning the theme that emerged on support services rendered to students who are deaf at Odupongkpehe M/A Inclusive Basic School, the following comments were made by the students.

One student said:

Our sign language interpreter is not enough for us, we need more sign language and if possible, a note taker who can provide some short notes for us. (A verbatim expression of student H)

Another student narrated:

I wish we have projectors and resource room because sometimes I don't understand when the teacher is teaching. (A verbatim expression of student G)

The above comments indicate that the provision of teaching and learning facilities such as sign language, note taker, teaching and resource center is inadequate. Because students who are deaf complained about inadequate provision of teaching and learning equipment and resource center as well as sign language and note taker. Students who are deaf wish more sign language interpreters and other forms of support services such as notes takers, projectors, resource center, and photocopies are provided in order to enhance their academic experiences at Odupongkpehe M/A Inclusive Basic School, Kasoa.

Observation

Two observations were carried out by the researcher in JHS 1 & 2 for two days during lessons in order to confirm and disconfirm what the respondents said during focus group interview. The observations primarily took place in the classrooms, with the observation checklist the researcher observed the following:

Experiences on teaching and learning

With respect to deaf students' experiences on teaching and learning at Odupongkpehe M/A Inclusive Basic School, it was observed that the involvement of students who are deaf in teaching and learning process in the school is satisfactory. Deaf students were seen answering and asking questions, they participated in class exercises as well. Also, academic assistance rendered by hearing colleagues to students who are deaf is satisfactory. Hearing students were seen giving their notes and exercises to students who are deaf to copy, one student even gave a pen to one of the deaf students during lessons. However, deaf students' understanding on school's text books for teaching and learning was unsatisfactory. Because the sign language interpreter took more time interpreting a concept in Mathematics to students who are deaf during lessons.

Experiences on interpreting

Concerning the academic experiences on interpreting at Odupongkpehe M/A Inclusive Basic School. It was confirmed that the proficiency of sign language interpreter of the school was ineffective as opined by deaf students during interview. During observation, it was noticed that finger spelling was predominantly used by the interpreter during teaching and learning. More so, the sign language interpreter was regular and punctual to class during lessons. Finally, academic assistance rendered to students who are deaf by interpreter in class exercises, project work was satisfactory.

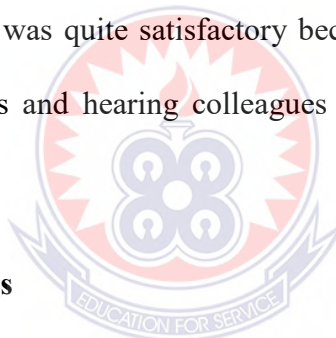
Experiences concerning assessment

Regarding assessment experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School, it was confirmed that the rate at which assessment is conducted in the school is satisfactory. Class exercises, homework, project work, quizzes etc. were frequently organized for students who are deaf before and after

lessons. Also, special attention such as time, interpreting services given to students who are deaf during assessment was quite satisfactory. Finally, English Language ability of students who are deaf in assessment was unsatisfactory because students who are deaf found it difficult to express themselves with English Language when their class exercise books were inspected by the researcher after class.

Experiences on note taking

Concerning the experiences on note taking, it was confirmed that the effectiveness of note taker at Odopongkpehe M/A Inclusive Basic School was unsatisfactory. Because the school do not have any official note taker who would help provide clarified notes to students who are deaf. More so, access to information in the absent of notes taker was quite satisfactory because students who are deaf often relied on their own notes and hearing colleagues offered their notes to them after lessons.



4.2 Discussion of findings

Research Question 1: What are the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School?

Research question one explored the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. The following results reveal the major findings of the study:

The findings of the study indicate that practically all the students who are deaf at Odupongkpehe M/A Inclusive Basic School are not isolated in the teaching and learning process that goes on in the school. Participation between teachers and students is essential in the process of teaching and learning because students' participation in the classroom warrant success of learning process. The analysis of the

interview and observation data indicated that participation of students who are deaf at Odupongkpehe M/A Inclusive Basic School is satisfactory and students were involved in the teaching and learning process through class participation in the form of writing class exercises, answering and asking questions in class. This finding is in line with (Cudjoe, 2020) who opined that one indicator of successful learning in inclusive classes is group activities. As students who are deaf are encouraged to actively participate in classroom activities such as asking questions, writing notes, giving opinion or answering questions, it promotes the interaction that exist between students who are deaf and those without hearing impairment in the school. Finding of the study on teaching and learning experiences shows that deaf students at Odupongkpehe M/A Inclusive Basic School were actively engrossed in the teaching and learning activities in the classroom during lessons. This has contributed positively in the academic experiences of students who are deaf as they are given the opportunity to participate in classroom activities.

Again, the analysis of the interview and observation data indicated that majority of students who are deaf feel comfortable with the learning environment of the school. Some deaf students recounted that they feel relaxed when interacting with their hearing colleagues and this shows that the attitude of hearing students towards students who are deaf in inclusive setting is turning to be positive (Mantey, 2011). More so, practitioners of deaf education are more concerned about the social outcomes and academic experiences of students who are deaf in general school programs with their hearing colleagues because of the challenges associated with peer communication and interaction (Kluwin, et al., 2002).

More so, the analysis of the interview and observation data on deaf students at Odupongkpehe M/A Inclusive Basic School indicated that hearing students demonstrate some kind of love and support for students who are deaf in their academic accomplishments. Hearing students rendered some level of academic assistance in the form of involving students who are deaf in group discussions, assisting students who are deaf to copy notes in the absence of their interpreter among others. This indicates that the school environment is truly accommodating as everyone accepts and embraces individual differences (Agbenyega, 2007; Lee, 2013). Hence demonstrating a positive attitude towards individuals with special needs such as students who are deaf is key towards academic success of students who are deaf in an inclusive setting.

Also, analysis of the interview and observation data indicated that deaf students' experiences on teaching and learning material such as text books used in teaching deaf students is unsatisfactory. Students who are deaf find it difficult to understand the language used in writing their learning materials. English Language is the official language used in teaching and learning and for other instructional purposes for all students at Odupongkpehe M/A Inclusive Basic School. The students who are deaf raised concerns about the challenges faced with the English Language when learning text books provided to them by the school. Some of the students who are deaf commented that the contents of their text books are complex for them to comprehend and to retain due to the language used in writing the learning materials. This finding of the study agrees with (Musayaroh, &Aprillia, 2018) who argued that students who are deaf in inclusive classes have difficulties following and understanding learning materials provided for teaching and learning. The poor performance in education subjects like English language has become a hindrance to many promising deaf

students who could perform well in their academics (Agengo, 2019). Even though Odupongkpehe M/A Inclusive Basic School is using Signing the Exact Language for educating students who are deaf, students find it difficult following and understanding majority of the things taught in school because of the language used. More so, students who are deaf language of communication seems to be more encouraging when used among them than the spoken language.

Research question 2: What are the experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School toward interpreting services?

Research question two explored the experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School toward interpreting services. The following discussions point out the major findings of the study:

The analysis of the interview and observation data indicated that students who are deaf at Odupongkpehe M/A Inclusive Basic School find it difficult to access classroom information when interpreter absents herself from school. It was also reported that the type of education provided to students who are deaf at Odupongkpehe M/A Inclusive Basic School in relation to access to information by students who are deaf in the absence of interpreter was unsatisfactory because the school do not have any official note taker and resource center that will assist students who are deaf improve academically. This finding is in line with (Gudyanga, Hove, & Wadesango, 2014) a research conducted on challenges faced by students with hearing impairment opined that there is a risk of students who are deaf being excluded from the teaching and learning that goes on in the classroom in the absence of an interpreter. Even in a situation where an interpreter is present to interpret class room activities to students who are deaf, students who are deaf find it challenging coping with the academic activities because they find it difficult to simultaneously attend to

the interpreter and take good notes during teaching and learning (Hastings et al., 1997). There is a need for teachers and interpreters to reflect on their classroom practices with students who are deaf and adopt effective strategies of managing them in inclusive schools. In the absence of the interpreter during lessons teachers can use the modern techniques such as written handout, visual aids or interpreted videos and materials for instruction when working with students who are deaf. More emphasis should be laid on showing the practical things such as diagrams on the chalkboard or projectors for explaining lessons to students so that they can easily understand the lesson.

Sign Language proficiency means having the knowledge to interpret and produce meaningful signs which are appropriate to a linguistic context. The analysis of the interview and observation data on the sign language proficiencies of interpreter at Odupongkpehe M/A Inclusive Basic School indicated that deaf students receiving education from sign language interpreter find it difficult to comprehend information transmitted to them. The interpreting services provided to deaf students is ineffective and this affects the academic achievement of students who are deaf. The findings agree to what (Glacer, & Van Pletzen, 2012) publicized; they believed that internationally, the most important contributing factor to poor academic performance of students who are deaf is the use of the wrong medium of instruction between them and their teachers. Even though sign language interpreter at Odupongkpehe M/A Inclusive Basic School is not significantly proficient in the use of sign language, the results of the present study reveals that her services improve academic work of students who are deaf as she provides notes and assists her students with their academic works.

Again, the analysis of the interview and observation data indicated that the academic assistance that deaf students receive from their interpreter with regards to class exercises and homework is quite satisfactory. Because during class exercises, group work, project work she was always available to supervise her students with their academic works.

Again, the analysis of the interview and observation data indicated that there was inadequate sign language interpreter for students who are deaf in the school. The Junior High Department was being managed by only one interpreter. Even though she was the only interpreter for JHS she was always punctual and regular to class during lessons. (Fobi, & Oppong, 2016) found that some deaf students at the university sometimes go to lecture halls in the absence of sign language interpreter and those who sometimes have interpreters too do not understand the lectures because the subject for discussion is difficult for the interpreters to decode and sign for them. Though their findings contradict the current findings which revealed that even though sign language interpreter is the only personnel for JHS department in the school she was always regular to class.

Research question 3: What are the experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School on Assessment?

Research question three of the study explored the examination experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. The following discussions are on the major findings of research question three:

The analysis of the interview and observation data indicated that almost all students who are deaf participated in examinations conducted in the school and special attention in the form of extra time was given to students who are deaf in examination in order to write their exams successfully. Time allocation in an examination is crucial

for academic success of students. Deaf students must know how and where to spend their time, they need to prioritize the little time they have in order to accomplish any important tasks laid before them. Effective time management skills are required of them because effective time management skills lead to higher academic performance. This supports what (Chaturvedi, 2016) argued, he revealed that time allocation especially for students who are deaf is quite essential as it help to enhance their productivity and grades in academic setting.

The analysis of the interview and observation data indicated that almost all the students who are deaf find it difficult to use the Grammar of English Language in answering examination questions. English Language proficiency plays a crucial role for students in completing their studies in English-medium institutions like schools. Individuals with deafness would be uncomfortable expressing themselves with the English Language because their first language is not English language rather sign language. (Li et al., 2010; Wardlow, 2016). This ascertains similar findings of a research which displays that children do well at school when they are instructed in the language they best understand, especially the primary language they have acquired from home (Obosu, et al., 2016).

Research question 4: What are the experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School concerning Notes Taking?

The last research question of the study talked about the experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School concerning effective note taking services that are rendered to them in the school. The following discussions are on the major findings of research question four.

The analysis of the interview and observation data indicated that students who are deaf at Odupongkpehe M/A Inclusive Basic School do not have any official note

taker. Having a note taker guarantees equal access to information for individuals who are deaf because the presence of note taker in the class room handwrites the notes that are provided to mainstream students after class to students who are deaf. However, students who are deaf in this study do not enjoy the services of note taker due to inadequate special education personnel posted to the school. Students who are deaf sometimes make their own notes when teaching and learning is in progress; their sign language interpreter sometimes functions as a note taker making short notes for her students after class. Often times teachers of various subjects give notes to the class prefect to copy on the board for students who are deaf to have access to some class room information to copy after class but these managing strategies cannot be compared to a trained note taker whose duty is to provide accurate and clarified notes to deaf students during lessons.

Again, the analysis of the interview and observation data indicated that in the absence of the interpreter who sometimes functions as note taker, majority of the students who are deaf depend on their friends' notes in order to get access to what was taught in class. (Hove, & Gudyanga, 2014) are of the opinion that there is a risk of students who are deaf to be excluded from the teaching and learning that goes on in the classroom because resource persons who would help engage these students who are deaf are limited in supply in some inclusive schools.

Again, it is understood that it cost to employ more special education resource persons into both private and public schools however. It was surprising to find out that in the whole Awutu Senya East Municipality there is only one inclusive school for students who are deaf with four sign language interpreters and the discouraging finding was that the school do not have any official note taker who would help in the teaching and

learning processes of students who are deaf in the Municipality because more qualified special education personnel have not been posted into the school.

Finally, the analysis of the interview and observation data indicated that lack of resource center was another challenge for hearing impaired students at Odupongkpehe M/A Inclusive Basic School. Resource center is educational center which is equipped with specific materials and assistive devices as well as staffed with professionals to give support to special education needs students, teachers and neighboring schools (Carrington, & Robinson, 2006). However, arrangement of this resources center was not implemented and students who are deaf get less support from the limited staff in the school.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Summary

The study was conducted at Odupongkpehe M/A Inclusive Basic School for the deaf and hearing pupils, located at the Awutu Senya East Municipality. The purpose of the study was to explore the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. Four research questions guided the study and they are listed below:

- What are the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive basic school, Kasoa?
- What are the experiences of students who are deaf concerning interpreting services at Odupongkpehe M/A Inclusive basic school, Kasoa?
- What are the experiences of students who are deaf concerning assessment at Odupongkpehe M/A Inclusive basic school, Kasoa?
- What are the experiences of students who are deaf on note taking services at Odupongkpehe M/A Inclusive basic school, Kasoa?

The study adopted a qualitative research approach. The population for the study was 8 deaf students, all 8 students who are deaf were sampled for the study and they were made up of 2 males and 6 females. Homogeneous sampling technique was used to sample the participants because of the similar characteristics they possess in relation to social demographic characteristics. Data were collected using semi structured interview guide and observation checklist. Data collected were thoroughly read by the researcher before coded and analyzed using a thematic approach. The following summarize the major findings of the study.

Research question 1: What are the teaching and learning experiences of students who are deaf at Odupongkpehe M/A Inclusive basic school, Kasoa?

On the experiences concerning teaching and learning of students who are deaf at Odupongkpehe M/A Inclusive Basic School, the following depicts the major findings of research question 1:

1. The involvement of students who are deaf in teaching and learning process was satisfactory. Deaf students were engaged in class participation through class activities, group discussions, home assignments, asking and answering questions in class etc.
2. The main medium of communication among them was Signing Exact English Language which follows the Grammatical structure of English Language.
3. Deaf students depended on class exercises and notes of their hearing colleagues for information in the absence of interpreter so as not to lag behind in class.
4. Students who are deaf find it difficult understanding the contents of their text books provided for teaching and learning.

Research question 2: What are the experiences of students who are deaf concerning interpreting services at Odupongkpehe M/A Inclusive basic school, Kasoa?

On the experiences concerning interpreting services of students who are deaf at Odupongkpehe M/A Inclusive Basic School, the major findings are summarized below:

1. Access to class room information in the absence of sign language interpreter happens to be quite satisfactory, because students who are deaf rely on the

notes of their hearing colleagues for teaching and learning information after class whenever the interpreter is absent.

2. Sing language proficiency of interpreter of the school in terms of rendering teaching and learning interpretations to deaf students during lessons is ineffective for students who are deaf.
3. The academic assistance rendered to students who are deaf by their interpreter is quite satisfactory because interpreter always assist students who are deaf in school exercises such as homework, class works and project works.

Research question 3: What are the experiences of students who are deaf concerning assessment at Odupongkpehe M/A Inclusive basic school, Kasoa?

On the assessment, experiences of the students who are deaf at Odupongkpehe M/A Inclusive Basic School, the major findings are summarized below:

1. The participation of students who are deaf in assessment conducted in the school together with special attention given to students who are deaf in the form of extra time, interpretation service during examination is satisfactory.
2. English Language proficiency of deaf students in assessment such as class quizzes and examination are unsatisfactory.
3. The rate at which assessment is conducted in the school deaf students at Odupongkpehe M/A Inclusive Basic School in measuring students' academic performance is satisfactory.

Research question 4: What are the experiences of students who are deaf on note taking services at Odupongkpehe M/A Inclusive Basic School, Kasoa?

On the experiences concerning notes taking services of students who are deaf at Odupongkpehe M/A Inclusive Basic School, the major findings include the following:

1. Deaf students at Odupongkpehe M/A Inclusive Basic School do not have any official note taker this has been a challenge to both interpreter and students who are deaf in the school.
2. The students copy notes prepared by their class teachers during teaching and learning.
3. In the absence of the interpreter who sometimes functions as note taker, majority of the students who are deaf depend on their friends' notes in order to get access to what was being taught in class.

5.1 Conclusion

This study has revealed the academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School. It is evident from this study that students who are deaf experience some academic challenges with respect to basic education rendered to them. These academic challenges include poor English Language proficiency in assessment by deaf students, lack of note taker, inadequate supply of qualified interpreter, poor access to classroom information in the absence of interpreter. This situation therefore compels some of the students who are deaf at Odupongkpehe M/A Inclusive Basic School to stay at home and others to drop-out from school. Basic education for all is a human right which must be enjoyed by every child irrespective of disability. For this reason, there is a need for the removal of barriers restricting access to basic education by students who are deaf in the Awutu Senya East Municipality. This study has contributed in a way by helping stakeholders

to know what is happening at Odupongkpehe M/A Inclusive Basic School as far as the inclusion of students who are deaf is concerned in the country.

5.2 Recommendations

With respect to the findings of this study in line with set objectives, the following recommendations were suggested to improve academic experiences of students who are deaf at Odupongkpehe M/A Inclusive Basic School:

1. The school administrators should contact Special Education Department of University of Education, Winneba for assistance in providing in-service training for all teachers and the sign language interpreter in the school for effective teaching and learning.
2. The head teachers of Odupongkpehe M/A Inclusive Basic School through the Awutu Senya East District Education Directorates should contact Special Education Headquarters for more qualified interpreters to be posted to the school.
3. Heads of the school should provide adequate teaching and learning materials especially in classes where deaf students are placed for effective teaching and learning.
4. Teachers and the sign language interpreter should come down to the level of deaf students in the teaching and learning process.
5. The heads of the school should encourage the hearing students and the sign language interpreter to continue assisting deaf students in any way they can as far as the academic assistance of deaf students is concerned in the school.

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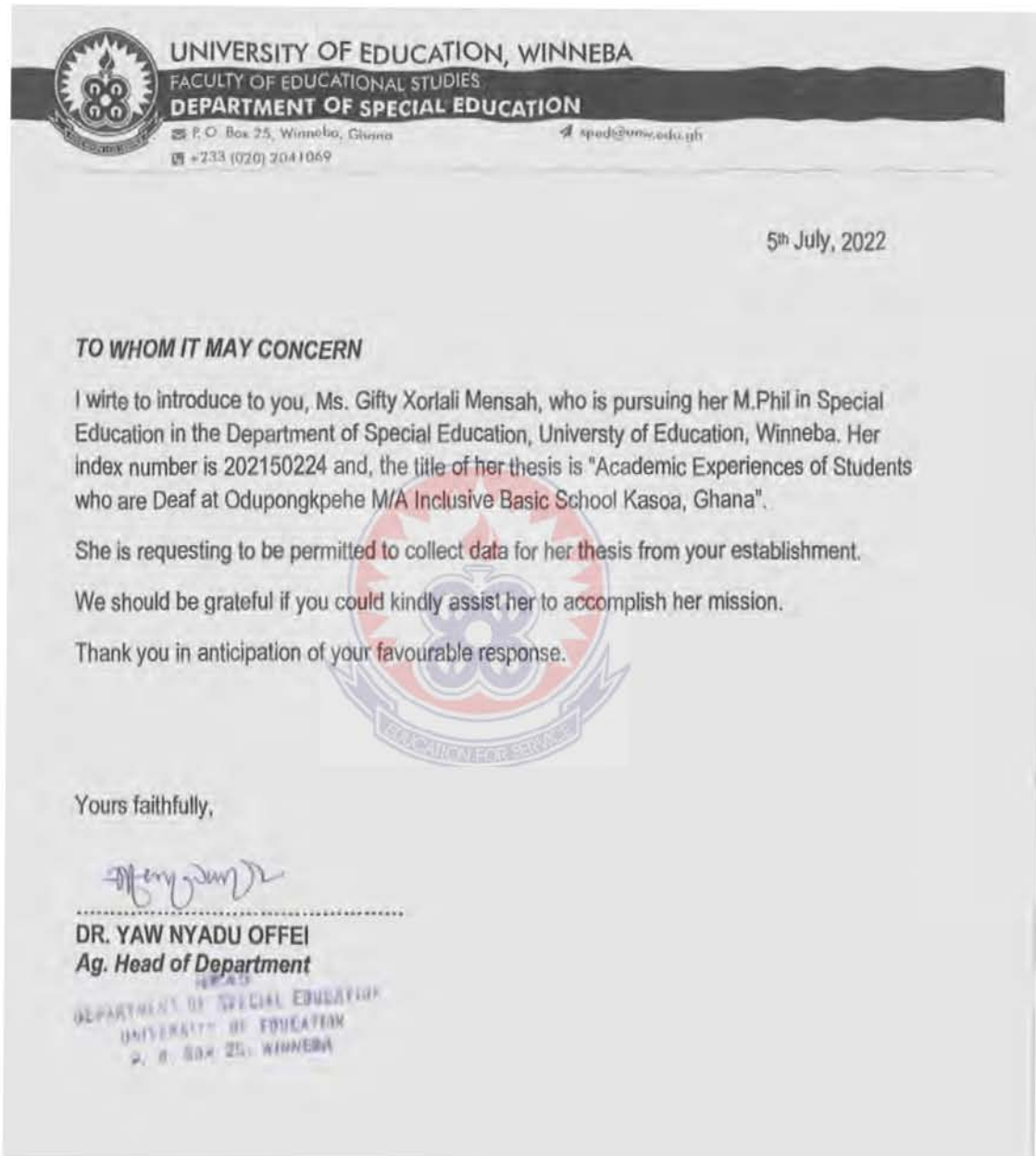
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APPENDICES

APPENDIX A

INTRODUCTORY LETTER



APPENDIX B

CONSENT LETTER FOR PARENTS OF STUDENTS WHO ARE DEAF

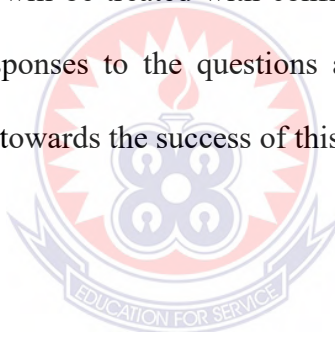
PARENT'S CONSENT FORM

My name is Gifty Xorlali Mensah I am a final year student at the Department of Special Education of University of Education, Winneba. I am conducting a research on the topic 'The Academic Experiences of Students Who Are Deaf: The Case of Odupongkpehe M/A Inclusive Basic School, Kasoa' in partial fulfilment of the requirements for the award of the Degree of Master of Philosophy.

Your ward's participation in this study is voluntary and he/she is free to withdraw from the study at any point without any consequence. I also assure you that any information they provide will be treated with confidentiality and not be disclosed to anyone. Your ward's responses to the questions are to be honest as they will be contributing significantly towards the success of this study.

Thank you

Parent's Signature _____



APPENDIX C

CONSENT LETTER FOR STUDENTS WHO ARE DEAF AT ODUPONGKPEHE M/A INCLUSIVE BASIC SCHOOL.

UNIVERSITY OF EDUCATION, WINNEBA



CONSENT FORM

My I am a final year student at University of Education, Winneba. I am conducting a research on the topic ‘The Academic Experiences of Students Who Are Deaf: The Case of Odupongkpehe M/A Inclusive Basic School, Kasoa’. The purpose of this study is for academic assessment and any information collected will not be disclosed. Respondents are assured that their names and personal identities would not be published and information obtained is strictly confidential. The respondents have the right to withdraw from the study at any point in time without any consequences. Please be honest in your answers and there is no wrong or right answer.

Thank you

Students who are deaf Signature _____

APPENDIX D

A. FOCUS GROUP INTERVIEW GUIDE FOR STUDENTS WHO ARE DEAF

Interview guide for focus group discussion for students who are deaf at Odupongkpehe M/A Inclusive Basic School

1. Experiences on teaching and learning at Odupongkpehe M/A school

- a. How will you describe the way you are involved in the teaching and learning process in the school?
- b. How will you describe the way you ask and answer question in class?
- c. How will you describe the academic assistance you receive from your hearing colleagues?
- d. How will you describe your understanding on the materials you use in learning in class?

2. Experiences concerning interpreting at Odupongkpehe M/A school

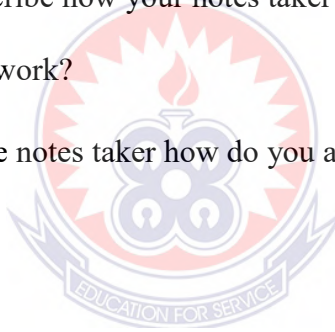
- a. How will you describe the proficiency of your sign language interpreter?
- b. Are they regular during lessons (do they report on time, late, absent)?
- c. How will you describe how the interpreters help you in your homework, class exercises, project work?
- d. In the absent of the interpreter how do you access information during lessons?
- e. How will you describe the sign language ability of your hearing teachers?

3. Experiences concerning assessment at Odupongkpehe M/A school

- a. How will you describe the way examination is conducted in the school?
- b. How often are examinations conducted in the school?
- c. What are the type of examination conducted in the school?
- d. What special assistance is given to students who are deaf in examination?

4. Experiences on note taking at Odupongkpehe M/A school

- a. How will you describe the appropriateness of your notes takers?
- b. How regular are they during lessons (do they report on time, late, absent)?
- c. How will you describe how your notes taker help you in your homework, class exercises, project work?
- d. In the absent of the notes taker how do you access information during lessons?



**B. Observation Checklist for students who are deaf at Odupongkpehe
M/A Inclusive Basic School, Kasoa**

Name of school: Odupongkpehe M/A Inclusive Basic School

Class: Junior High School (JHS) 1&2

Observer: Gifty Xorlali Mensah

Date: 18th July, 2022.

Activities	Yes	No	Comments
Students greet teachers when they enter class			
Students who are deaf answer questions in class			
Students who are deaf ask questions in class			
Hearing students assist students who are deaf during lessons			
Use of teaching and learning materials (text books, chalk board)			
Understanding of school's text book by students who are deaf			
Access to information in the absence of interpreter			
Sign language as means of communication			
Punctuality of sign language interpreter			
Academic assistance given by sign language interpreter			
Sign language proficiency of hearing teachers			
Effectiveness of sign language by interpreter			
Consistency of assessment conducted for students who are deaf			
Any assistance granted to students who are deaf during assess?			
Any language difficulties faced by students who are deaf during assessment			
Various Structures of assessment conducted in the school			
Presence of note taker during lessons			
Access to information in the absence of note taker			
Punctuality of sign language note taker			
Academic assistance given by note taker			
Effectiveness of the note taker			