

UNIVERSITY OF EDUCATION, WINNEBA

SOCIAL AND ACADEMIC EXPERIENCES OF STUDENTS WHO ARE DEAF

AT THE UNIVERSITY OF EDUCATION, WINNEBA



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**A Thesis in the Department of SPECIAL EDUCATION, Faculty of Educational
Studies submitted to the School of Graduate Studies, University of Education,
Winneba, in partial fulfilment of the requirements for award of Degree of Master
of Philosophy (Special Education) degree.**

JULY, 2016



DECLARATION

CANDIDATE'S DECLARATION

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

SIGNATURE.....

DATE.....



SUPERVISOR'S DECLARATION

I, Dr. Alexander M. Opong, 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.

SIGNATURE.....

DATE.....

ACKNOWLEDGEMENTS

I extend my sincere gratitude to my research advisor and supervisor, Dr. Alexander M. Oppong for enhancing my understanding and professional growth in research. I also appreciate the efforts of my lovely husband, Mr. Daniel Fobi, as well as Dr. Yaw Nyadu Offei (Head, Department of Special Education), Prof Elisa Maroney, Mrs. Emenefa Acheampong, and Nana Opoku Acheampong for their support. God richly bless them all.



DEDICATION

This work is dedicated to my son, Nhyira Nana-Yaw Fobi.



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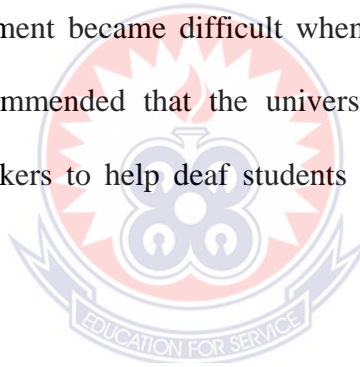
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ABSTRACT

This phenomenological study explored the social and academic experiences of students who are deaf at the University of Education, Winneba (UEW). Fourteen deaf students who are deaf were purposively sampled from a population of 36 students. Data were gathered through a semi-structured interview guide. Data were coded and analysed using thematic approach. Results of the study indicated that students who are deaf had varied social experiences. Whereas some preferred being at the same place with their hearing colleagues, others saw that as a waste of time. Academically, participants indicated that they were usually assessed on content areas they were taught. They added that assessment became difficult when Sign Language interpreters were absent. The study recommended that the university employ more Sign Language interpreters, and note-takers to help deaf students improve the social, and academic experiences.



CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

In many developing countries, including students who are deaf and hard of hearing (DHH) in tertiary education programs is not a common practice. In recent years, however, the number of students who are DHH pursuing tertiary-level programs in developing countries, such as Ghana, has been increasing steadily. For instance, in Ghana, DHH students are admitted into tertiary institutions, if they meet admission criteria. In view of the fact that, admitting DHH students into tertiary institutions in Ghana is an emerging practice, it could be anticipated that the students would have varied experiences, both pleasant and unpleasant, about their student life. More importantly, social and academic experiences of DHH students in inclusive tertiary institutions must be of concern to educators, administrators, and other stakeholders, since those experiences could be critical to the students' school and post-school success. Unfortunately, the social and academic experiences of DHH students at the tertiary level in Ghana has not been researched into and documented.

In Ghana, individual students who are deaf, often depend on sign language interpreting, note-taking, and tutoring services for academic, and social information. A search into international journals such as *American Annals of the Deaf*, *Deafness and Education International*, *Journal of Deaf Studies and Deaf Education*, and *Volta Review* indicated that, in Africa, studies about the experiences of students who are deaf in tertiary institutions are scant. The search, specifically, mentioned South Africa

as the only country where studies have been conducted on the experiences of students who are deaf in a tertiary institution (Bell, 2013; Magongwa, 2008; Spradbrow & Power, 2004).

In Ghana, evidence in the literature suggests that much is not known about the experiences of students who are deaf in tertiary institution because very few studies have been conducted in this area. The few studies that have been conducted in this area were conducted at the basic school level (Mantey, 2011; Oppong, & Fobi, 2016). A search into the institutional repository of the University of Education, Winneba (UEW) by the UEW librarian, in the presence of the 2014/2016 graduate students, revealed that no empirical study had been conducted regarding the experiences of deaf students in tertiary institutions in Ghana.

Studies that have explored experiences of students who are deaf in inclusive settings in Ghana and elsewhere found diverse views about the experiences of the students. For example, Magongwa (2008) and Bell (2013) conducted studies regarding experiences of deaf students in a tertiary institution in South Africa, and found that the students had wide range of negative academic and social experiences when they studied with their hearing peers. Also, Mantey (2011) conducted a study on the experiences of post-lingual students who are deaf in basic schools in Ghana, and found that deaf students did not have positive experiences when they learned with their hearing colleagues. In another study, Nikolarazi and Hadjidakou (2006) studied the educational experiences of deaf students in Greece and found that whether or not deaf students were placed in inclusive or segregated settings, their experiences remained the same. Again, in a study conducted in the U.S.A., Schick, Skalicky,

Edwards, Kushalnagar, Topolski, and Patrick (2013) explored the experiences of DHH youth on school placement and perceived quality of life, and found that the students' experiences were not different across inclusive and segregated schools. Nevertheless, the Schick et al. (2013) study did not consider the experiences of the students placed in tertiary institutions.

The University of Education, Winneba offers social and academic services such as sign language interpreting, note-taking, and tutoring services to students who are deaf at lecture halls and social gatherings, such as, matriculation and graduation ceremonies. Although these services are available to students who are deaf, no empirical study has been conducted to explore the experiences of the students about the services they receive (Fobi & Oppong, 2015; Oppong, Fobi, & Fobi, 2016).

Students who are deaf, and are pursuing tertiary-level education programs, have a wide range of social and academic experiences that are critical to their success, so those experiences need to be researched and documented. In the present study, the social and academic experiences of 14 deaf students' enrolled in programs of study at UEW during the 2015/2016 academic year, were investigated. The study was based on the theoretical framework outlined in Tinto's (1975) model of students' departure or retention.

1.1 Statement of the Problem

In Africa, as mentioned earlier, it is in only South Africa that studies into the experiences of students who are deaf in a tertiary institution have been conducted (Bell, 2013; Magongwa, 2008; Spradbrow, & Power, 2004). In Ghana, a few studies that have been done, on the experiences of students who are deaf in inclusive

education settings were conducted in Basic schools (Mantey, 2011). At the tertiary level, no empirical studies have been conducted to explore the social and academic experiences of students who are deaf. The few studies that have been done elsewhere on the experiences of students who are deaf in tertiary institutions revealed different results. For instance, whereas some studies reported negative experiences of students who are deaf learning together with their hearing peers (Bell, 2013; Magongwa, 2008; Mantey, 2011), other studies revealed that students who are deaf experiences were not dependent on whether or not they were educated in a segregated or inclusive educational settings (Batten, Oakes, & Alexander, 2014; Schick et al., 2013; Nikolarazi & Hadjidakou, 2006). The current study elicited from the deaf consumers their social and academic experiences about being students in a tertiary institution in Ghana.

1.2 Purpose of the Study

The purpose of this study was to explore students who are deaf social and academic experiences at the University of Education, Winneba.

1.3 Objectives of the Study

The objectives of the study were to explore:

1. Social experiences of students who are deaf in tertiary institution in Ghana.
2. Academic experiences of students who are deaf in tertiary institution in Ghana.

1.4 Research Questions

The study was guided by the following research questions:

1. What social experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?
2. What academic experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?

1.5 Significance of the Study

First, findings of the study would help in revealing the social experiences of students who are deaf, as well as, information on their academic experiences at the university level. Second, Findings of the present study would add to the deaf education literature and existing theories on the experiences of students who are deaf in tertiary institutions. Third, results of the study would also serve as a source of reference to researchers who may be interested in conducting similar studies elsewhere or may want to replicate this study.

1.6 Delimitation

The study was delimited to students who are deaf and enrolled in levels 200, 300, and 400 courses at the University of Education Winneba. Those students, typically, benefit from sign language, and were most likely to have diverse social and academic experiences. Level 100 students were not included in the study because they were in their first semester and had not gained much experience in their academic and social life in the university community. In other words, levels 200, 300 and 400 students were purposively included because they had spent more than one

academic year in the university and were more likely to be involved in social and academic activities in the university.

1.8 Limitation

The researcher found it difficult getting participants from the target population to be included in the study. The researcher overcame this challenge by meeting the participants one on one to explain the need to be included in the study and assured them of their confidentiality. However, it is important to note that in spite of this limitation, the validity of the research findings and conclusions were not compromised.

1.9 Operational Definition of Terms

Academic experiences: Teaching and learning processes that students go through in a tertiary institution as they access information, understand lectures, and are assessed.

Experiences: Events that students who are deaf are involved in over a period of time as students in the university that leads to an increase in knowledge and skill.

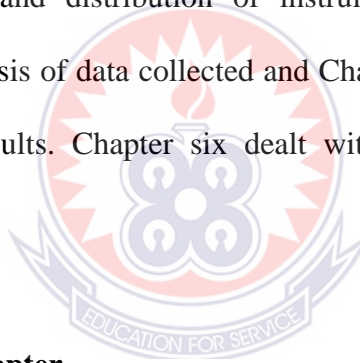
Sign Language: it is the natural and non voiced language of students who are deaf.

Social experiences: they are the daily events that students encounter as they go about their learning activities in the university community

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

1.10 Organization of the Study

In line with the in-house style of the University of Education, Winneba, this thesis was presented in six chapters. Chapter one comprised the background to the study, statement of the problem, aim and objectives of the study, research questions, significance of the study, delimitations of the study, limitations, operational definition of terms and general layout of the study. Chapter two focused on the literature review taking into account the research objectives and the theoretical framework of the study. Chapter three dealt with the methodology including sample and sampling techniques, research design, population, instruments used in data collection and analysis, description and distribution of instruments. Chapter four covered the presentation and analysis of data collected and Chapter five focused on interpretation and discussion of results. Chapter six dealt with the summary, conclusions and recommendations.



1.11 Summary of Chapter

This chapter presented the introduction to the entire study. The introduction explained that, only a few number of studies have been conducted on experiences of students who are deaf, and they found different results. The present study sought to unveil the experiences of deaf students in a tertiary institution in Ghana. Thus, this present study lays a strong foundation for building scientific literature on the experiences of deaf students in a university in Ghana.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviewed related literature on the social and academic experiences of students who are deaf. The literature reviewed included research articles, journals, and books. The literature reviewed also included empirical studies and the theoretical framework supporting the main issues addressed in this study. The areas that were discussed are:

1. Social experiences of students who are deaf enrolled in tertiary education programs.
2. Academic experiences of students who are deaf enrolled in tertiary education programs.



2.1 Theoretical Framework

This study was guided by Tinto's (1975) model of students' departure or retention. In the model, Tinto explained that an individual student's decision to persist or depart from an institution is dependent on their pre-university characteristics, their level of commitment and intention towards their academic goal, and also their ability to integrate academically, and socially into the institutional culture. Explaining academic and social integration, Tinto indicated that academic integration is dependent on a student's level of academic preparedness and readiness to meet academic expectations. Tinto (1975) further indicated that social integration is dependent on the student's ability to be involved in the university community as well

as connect to the peer culture, and engage in the social life of the institution. Tinto postulated that whereas academic integration is a requirement for students' retention, social integration is not. However, both academic, and social integration have potential influence on students' involvement and retention.

Tinto (1975) hypothesized about two levels of integration. Tinto stated that: (1) students who perform well academically in an institution may not necessarily involve themselves in the social activities of the institution, and (2) students may have a high social involvement in organizations and extracurricular activities may have average academic experience. Depending on the characteristics of the individual student, these levels may be sufficient for student's retention or departure. Regardless of levels of integration, Tinto indicated that both academic and social factors influenced an individual student's persistent decisions. Astin (1993), Tinto (1993) and Tinto (2000) explained that what drives integration on both domains is the concept of involvement. Tinto discussed involvement in both the academic and social domains as a significant element that drives learning and development. The more involved a student is in their learning and development, the more likely they will become integrated with the academic, and/or social culture of the institution, and therefore the more likely they will persist and graduate from the institution (Astin, 1993; Bean & Eaton, 2000; Pascarella & Terenzini, 2006; Tinto, 1993, 2000).

2.1.1 Implications for the Study

The implications of Tinto's (1975) model of departure or retention for this study are that the social and academic experiences of individual students who are deaf

in a tertiary institution may be different across different domains. For example, a student who integrates well socially in an institution may not necessarily perform well academically, and vice versa. Also, some students may perform well academically and also be involved in social activities of the institution. Tinto (1975) indicated that how deaf students are taught and their ability to communicate in a tertiary institution may give them positive academic experiences. However, the same student in the same institution may not necessarily have positive social experiences. Astin (1993), Tinto (1993) and Tinto (2000) explanation also indicated that what makes a student who is deaf feel included in an educational institution, both academically and socially, is their involvement in the institution's activities.

The implications of Tinto's model of student departure or retention are that deaf students' involvement in both academic and social domains in a university drives learning and development. Students' involvement should be tackled holistically by building both the academic and social domains since both have their respective experiences. The more involved a student who is deaf is in their learning and development, the more likely they will become integrated with the academic activities of the institution. Also, the more involved a student is in the social activities of a tertiary institution, the more likely they are to develop positive social experiences (Astin, 1993; Bean & Eaton, 2000; Pascarella & Terenzini, 2006; Tinto, 1993, 2000).

2.2 Social Experiences of Students who are Deaf in the Tertiary institution

This strand reviewed literature on social experiences of deaf students. Four sub-topics were developed out of this strand, namely: (1) experiences at social

gathering, (2) experiences at halls of residence, (3) social experiences with the university staff, and (4) communication experiences on attitude of lecturers and hearing peers.

2.2.1 Experiences at Social Gathering

Over the past decade, students who are deaf have struggled with the development of social skills (Stinson & Antia, 2014). Many of the skills needed to interact successfully with hearing peers are language based, which is an area of deficit inherent in the disability of deafness. Students who are deaf have fewer natural opportunities for meaningful conversational interaction and as a result, are less likely to acquire the full range of pragmatic skills needed for successful communication (Fobi & Oppong, 2015, Ling, 1989; Oppong & Fobi, 2016). Pragmatic skills include listening with the ears and imitating with voice. Pragmatics of language and the way languages are used to get things accomplished are essential in communication (Easterbrooks & Baker, 2002). Easterbrooks and Baker further indicated: “*Language occupies a central role in social learning* (p.38)”, and therefore impacts a person’s ability to learn social skills needed to communicate successfully. DHH impacts language and communication development can dramatically alter social skills acquisition (Brackett, 1997).

Historically, the literature has documented considerable difficulties in the area of social development for students with hearing loss (Bell, 2013). In 1986, Loeb and Sargiani reported that school-aged deaf students in public schools demonstrated lower scores on measures of perceived self-confidence in the areas of peer popularity, ease

of making friends, and the ability to have positive peer interactions than did hearing students in the same schools. In a review of six studies of self-esteem in deaf and hard of hearing students in mainstream classrooms, Ita and Friedman (1999) found that, majority of the students in basic schools reported difficulties with peer relationships and social interactions, in general (Nicholas & Geers, 2006).

In a review of 33 studies, Kluwin, Stinson, and Colarossi (2002) noted that deaf and hard of hearing students in public schools often failed to establish meaningful and close relationships with their hearing peers. As a result, many students reported feelings of isolation and loneliness in school. They concluded that students in mainstream programs may not fully enjoy their relationships with peers, in particular, with hearing peers. In an effort to evaluate deaf students' ability to employ the pragmatic skills required for effective face-to-face interaction, Jeanes, Nienhuys, and Rickards (2000) found that profoundly deaf children had difficulty using appropriate, productive pragmatic behaviors when requesting clarification, and when responding to requests for clarification. Jeanes et al. posited that the reduced quality and quantity of interactional experience for students who are deaf may be one reason for this difficulty. The authors further explained that there were fewer opportunities for these behaviors to be modeled by competent communicators, as well as fewer opportunities for the child to practice the behaviors in meaningful settings.

In a study on social skills intervention program in Spain, Suarez (2000) noted four significant improvements, namely: (1) improvement in assertive behavior in deaf students' school life, (2) increased emotional adjustment, (3) improved social adjustment, and (4) improvement in self-image. Suarez asserted that students who are

deaf became better adjusted when greater attention was given to social-emotional aspects of the students' development. Suarez indicated further that, sometimes, deaf students are placed in challenging educational environments, in which they must try to learn and integrate socially. Students who enter the mainstream from oral deaf schools make transition from individualized instruction in a small group setting (often only 4 or 5 students in a classroom) to a large classroom that may present a difficult experience for them in an acoustic environment, rather than continuing to receive individualized instruction specifically tailored to meet their learning style and needs. The students must adapt to the material that is presented to them, and the way in which it is presented. Additionally, most regular education teachers have little or no experience working with students who are deaf and do not receive the information and support they need to adequately meet their needs in the classroom (Luckner, 1991).

Stinson and Antia (2014) stated that, the desired outcome of an inclusive classroom is a student who is well integrated both academically and socially. They suggest that teachers need to examine carefully the degree to which classroom practices are modified to accommodate students who are deaf, as well as the kinds of classroom practices that optimize student's academic and social integration.

Many regular educators do not have enough experience in working with students who are deaf (Luckner, 1991). Luckner further observed that regular education teachers also have inadequate information about the needed accommodations and how to implement them to create an effective teaching, and learning environment for these students. The ultimate goal of many families when

placing their students who are deaf in an inclusive education program is to provide them with the opportunity to achieve an academic level similar to their hearing peers through the mainstream public education system. In order to make the most of this opportunity, teachers need to be cognizant of the social and emotional development of these students prior to their leaving the inclusive school setting.

Matchett (2013) examined the first year experiences of black students who are deaf at a predominately white hearing college in America. -This study focused on experiences of Black students who were deaf and highlighted strategies that facilitated student persistence in college. Matchett's study was a qualitative phenomenological research, which used a triangulated method of data collection to enhance credibility and gain participant trust. It included demographic surveys and in-depth interviews supplemented by field notes. After data analysis, findings were identified based on Tinto's student integration theory (1993). Their findings indicated that, despite increasing enrollment of college Black students who are deaf, graduation rates had not improved. Three major themes were identified from the findings of the study. They were: (1), Peer Connectedness, which participants considered the most important factor in Black deaf student retention; (2), Defining Black (3) Deaf Identity, which considered the unique challenges Black students who are deaf faced in defining their own identities; and Strategies that Support Black students who are deaf in College, which identified skills some Black students who are deaf used to navigate academic and social challenges. The current study differed from the Matchett study in the way they were designed. First, it did not focus only on the first year experiences of students who are deaf but on Levels 200, 300, and 400 students.

Second, it covered their entire social and academic experiences. Third, the presents study employed only semi-structured interview to collect data on the social and academic experiences of students who are deaf in a public tertiary institution in Ghana.

Leigh (2010) stated that, while there is concern about the low graduation rates for students who are deaf compared to hearing students, race plays a significant role in other social contexts. For example, White students who are deaf are more likely to graduate with a college degree than their Black deaf peers (Williamson, 2007). Studies about students who are deaf have largely examined the experiences of White students who are deaf with limited focus on the experiences of Black students who are deaf. The factors identified in research as contributing to White students who are deaf high attrition rates often do not apply to Black students who are deaf, because of their disparate cultural, social, and academic experiences (Foster & Kinuthic, 2003; Leigh, 2010; Myers et al. 2010; Rodgers & Summers, 2008; Steele, 2000; Williamson, 2007).

Social experiences can be a crucial factor in promoting or inhibiting access for students who are deaf. Shevlin and Rose (2003) commented that students who are deaf were subjects of ridicule and laughter especially because of their deficit in speech and language. They were perceived to be undeserving and unacceptable to the majority of the public who did not understand them. Cook-Sather (2004) noted that the issues of culture, tradition and social interaction between persons with disabilities and their non-disabled members of the community have been embedded in generation. This has led to prejudice among regular students who learn with persons

with disabilities. Their difficulties, according to Derrington and Kendall (2004), were that students who are deaf experience hostile attitudes and are called names, and some of them stay away from their hearing peers.

Often students who are deaf are bullied, shunned, and treated by their hearing peers as undeserving of love care and support and for fear of being contaminated with the disability (Kenny, McNeela, & Sheliv, 2004). Kenny et al. noted that bullying is rife in schools which are said to be practicing inclusion. Students with disabilities are left out of a lot of activities that socialize students. The students with disabilities are often isolated from their regular peers, Kenny et al. added. Increased participation and success in education for students with hearing impairment improve their social inclusion and give them positive social experiences (Barnes & Mercer, 2003).

Positive social experiences for students who are deaf mean the removal of prejudice and discrimination that they have to deal with (Gray, 2002). Gray further stated that students with deafness experience social problems at school for reasons related to their impairment. Of those who have experienced problems at school, many felt that their social lives have been affected greatly. Reasons included teachers' and peers' inability to sign, and socialize with them. Gray added that deaf students often feel rejected and isolated in the inclusive schools. Peer socialization deaf students received from hearing students were not significant. They were rejected because of the speech and language deficits.

In a sociometric study conducted in the UK by Riddell, Tinklin and Wilson (2004), it was observed that students with deafness at the secondary school level in an inclusive setting suggested that their acceptance by their peers was not good enough

on account of their communication difficulties. Cook-Sather (2004) identified four common attitudes towards students with deafness. Cook-Sather noted that the students are shown pity because they are seen as helpless, unhappy, and tragic figures. These attitudes interfere with the ability of students who are deaf to learn and practice the social skills that lead to effective interpersonal relationships.

Komesaroff (2000) explored the ways in which culturally deaf students are included or excluded from epistemology through academic practices, academic literacy and policies of inclusion for students with disabilities. Komesaroff explored the experiences of two deaf students in higher education who were completing an undergraduate degree with hearing students. Her findings identified key issues for culturally students who are deaf in higher education, which included (a) access and support, (b) academic literacy, (c) cultural difference or deficit, and (d) language and identity.

Johnson (2014) explored how deaf students interact with mainstream postsecondary environment in the U.S. Purposeful sampling was used to gather data from 19 individuals who attended postsecondary institutions not designed specifically for students who are deaf. The participants were enrolled in an urban community college district in the southwestern U.S. and were receiving accommodations from their campus accessibility office. Data were collected through 30-60 minute semi-structured interviews in American Sign Language or spoken English. Findings of the study provided insight on participants' reasons for enrolling in college, their perception of academic rigor as compared to high school, and familial support during their college experience.

Participants reported financial difficulty, despite their utilization of the state's tuition waiver program for students with hearing loss. In addition, the need for communication access, and especially, the quality and quantity of sign language interpreters featured prominently in participants' responses. Participants also expressed a desire for more interaction between students with hearing loss and the general college population. Finally, participants shared their perceptions of the campus accessibility office and the individuals within it, campus administrative support, and their experiences with teachers and classmates. The current study differs from Johnson's study because Johnson did not explore the academic and social experiences in the university. The current study will fill those gaps.

2.2.2 Experiences at Halls of Residence

Scheib and Mitchell (2008) stated that some of the reasons why there is a low social participation rate among students with disabilities are: (a) lack of information about accommodations for those with disabilities, and (b) learning access issues. For example, a wheelchair user would be concerned about accessibility to various rooms in their hall of residence. In addition, students who are deaf may have medical issues, which because of communication difficulty, may not be able to inform their roommates. The university and staff need more awareness and training in finding resources to assist in designing accessible programs that would aid students who are deaf in their Halls of residence. Emery (2008) indicated that accommodating students who are deaf can be successful if planners factor in things that would make the students comfortable. Emery further stated that when such programs are in place,

hearing students would be more sensitive to the needs of students who are deaf. Like other minorities, students who are deaf may have anxieties about discrimination towards them in their halls of residence (Ablaeva, 2012; Kutsche, 2012).

2.2.3 Social Experiences with University Staff

Lang, Biser, Mousley, Orlando, and Porter (2004) studied the experiences of students who are deaf with regards to university staff. They found significant differences between the perceptions of mainstream university lecturers and students who are deaf regarding the accommodation of deaf and hard of hearing students in the classroom. Lang et al., further explained that the difference between the students and lecturers might be explained partly due to the lecturers' little or no training with regard to the communication needs of deaf learners.

Foster and Brown (1988) conducted a study on the experiences of deaf learners in higher education at the Rochester Institute of Technology (RIT). RIT has a unit for DHH students, the National Technical Institute for the Deaf (NTID). The study included 46 DHH undergraduate students. Foster and Brown found that the students specifically chose to enroll at RIT because of the integration of deaf and hearing students. The students believed that RIT prepared them for the work environment by providing an opportunity to interact with other students who are deaf as well as hearing people. The study revealed other factors which attracted DHH students to the RIT as the availability of support services such as Sign Language interpreters and note-takers, which enabled them to interact with the staff fluently. The results of the study revealed that, although the students were integrated in a

hearing classroom, they still felt isolated. According to Foster and Brown, factors that contributed to the feeling of isolation included the need to be able to see the lecturers, and Sign Language interpreters and note takers sat together. As a consequence, the deaf students became a distinct group from their hearing peers. The current study is different from the work of Foster and Brown because it will include a small sample of only deaf students.

Tugli, Zungu, Ramakuela, Goon, and Anyanwu (2013) explored and described the perceived challenges of the staff of the Disability Unit at the University of Venda. A quantitative approach using semi-structured questionnaire was used to collect data from two participants who served in the unit. The work and physical environment were assessed. Though all the participants had disability related training coupled with 5-27 years' working experience in a disability environment, they indicated that they were overwhelmed with work pressure. In addition, the participants reported the institution being grossly understaffed. Disability prevalence in the study setting was 2% of the total student population. Most of the disability categories served included physical disability (34%) and partial sightedness (22%). Some of the challenges expressed by the participants included appalling sanitation conditions, poor and un-adapted facilities, and harsh physical environment. These results indicate that staffs at the Disability Unit at the University of Venda were overworked as a result of inadequate resources, shortage of staff and poor support systems. There was an urgent need for increased staff complement and support services. Also, Tugli et al. indicated that, for students with disabilities in tertiary

educational institutions, lack of necessary support services could render them socially and academically excluded and overly dependent.

2.2.4 *Communication Experiences on Attitude of Lecturers and Hearing Colleagues*

Research has shown that communication experiences of students with hearing loss are not comparable to their hearing peers (Murphy & Newlon, 1987). Students who are deaf in university experience feelings of separation and isolation from hearing peers (Foster & Brown, 1989). These students tend to socialize with other students who are deaf as much as possible (Foster & Decaro, 1991). Foster and Decaro further explained that the issue of learning and writing exams in English Language, the pressure on students in writing notes and communication, the difficulties associated with speech-reading, and the necessity of utilizing an interpreter, all contribute to the lack of interaction between deaf and hearing students.

Although, the provision of services is a key feature in the education of deaf students, yet having Ghanaian Sign Language (GSL) interpreters do not guarantee the students' successful inclusion into mainstream classes (Fobi & Oppong, 2015). For example, a student who is deaf may have difficulty adjusting to a GSL interpreter in lecture halls after years of being without this support at a school for the Deaf. Considering experiences of students who are deaf in the university, the World Federation of the Deaf (WFD) expresses a serious difference regarding implementation of inclusive education for students. The WFD (2007) holds that "the least restrictive environment for a Deaf learner ... is the most enabling environment for that learner" (p. iii).

Bisol, Valentini, Simioni, and Zanchin (2010) explored the experiences of deaf students who attended bilingual schools and identify with the deaf culture in Portugal. They used three young women and two young men, between 21 and 27 years old, who had been enrolled in undergraduate courses for at least three semesters. The work consisted in semi-structured, individual interviews, conducted by a female student who was deaf scholarship-holder and recorded on video; these interviews were later translated into Portuguese and analyzed for their content. The results highlighted how challenging it is to adapt to a world of people who, for the most part, have normal hearing, the difficulties of moving between sign language and Portuguese, the need to maintain identity points of reference that are valued by those who hear normally, as well as the importance of reorganizing teaching strategies and evaluating the involvement of the Brazilian Sign Language interpreter. The gap in Bisol et al. (2010) study to be filled by the current study is that, Bisol et al. concentrated only on the academic experiences, but did not focus on social experiences.

Cawthorn and Cole (2010) reported the following rates of accommodations from a national survey of all colleges with at least one student with a disability in Australia: (i) 88% offered extended time, (ii) 77% offered tutors, (iii) 69% offered note takers, (iv) 62% had class registration assistance available, (v) 55% offered text on tape, (vi) 58% had adaptive technology, and (vii) 45% made sign language interpreters available. These researchers also found that as many as 25% of students with disabilities found accommodations offered by their college ineffective. Students most often felt that accommodations were based on the definition of a disability

rather than practical accommodations individualized to a student's specific needs. Because the purpose of accommodations is to ensure equal access "it is important to remember that modifications should not be made based on generalizations regarding categories of disability, but should be made on a case-by case basis" (Section 504 Compliance Handbook, 1999, Section 9, pg. 64). Little efficacy data are available that detail the types of supports most effective and their impact on student success overall in postsecondary settings (Cawthorn & Cole, 2010; Lindstrom, 2007; Mellard & Kurth, 2006; NCSET, 2004). Most menus of general accommodations were created some time ago and deserve review for effectiveness—research.

Khan (1991) stressed that in order for students who are deaf to experience success at the tertiary level, intensive, ongoing collaboration and information sharing and encouragement must exist among the teachers, interpreters and students. Cawthorn and Cole (2010) indicated that students who are deaf face unique challenges in their efforts to communicate and succeed in a university. Unlike their hearing peers, deaf students particularly rely on support services such as interpreters and note-takers to assist them in communication. The students who are deaf believe the mainstream universities do not provide sufficiently inclusive and accessible environment that embrace the perspectives of all students because of communication problems (Cawthorn & Cole 2010).

Salter, Pearson, and Swanwick (2015) investigated teaching assistants' (TA) perspectives of deaf students' learning experiences within mainstream secondary schools. Six TAs were recruited to the Data Group and four to the Reference Group; both were engaged in a three stage iterative, qualitative research process comprising

focus group meetings and individual interviews. A third group, the Reference Group, consisted of seven students who are deaf; five mainstream teachers and three teachers of the deaf who provided validation of the Data Group TAs' working context through individual interviews. Consideration was given to how the TAs talked about learning and the challenges they perceived the students who are deaf encountered in the classroom. The TAs described a range of issues related to deaf students' knowledge acquisition, skills and mental state along with environmental factors they perceived impacted on the students' learning experiences.

The findings indicated that students who are deaf may be engaged in a significant amount of accommodative learning in classrooms designed to support assimilative learning. The TAs identified that their own presence in the classroom impacts on the nature of the social situation and potentially creates a barrier between the students who are deaf and the mainstream teacher. They considered that mainstream teachers' lack of understanding regarding the impact of deafness significantly affected the students' learning experiences.

They also indicated that the manner in which members of the classroom environment responded to the students who are deaf may be problematic. Suggestions are made for future investigations and a new model for the deployment of TAs to support students who are deaf is proposed. The gap in Salter et al.'s study is that the study was conducted at the secondary school level and the current study was conducted at the tertiary level. This current study is different from Salter et al. because the current study will explore from students who are deaf their social, and

academic experiences in a university. The current study did not include teaching assistants.

Dorziat (1999) stated that students who are deaf generally enter the university with little knowledge of the world, due to the communication restrictions that are to be found in their own families, in those cases where the parents can hear. So, the tendency is to direct learning to that which is applicable in day-to-day life, aiming to provide a reasonable level of understanding of happenings and the development of social and professional skills. Many institutions lay more emphasis on socialization than on formal knowledge acquisition and the development of critical thinking (Virole, 2005). As regards the structure of universities that admit students who are deaf, it is necessary to evaluate whether hearing teachers have sufficient competence in Sign Language and if students who are deaf effectively participate in the daily life of the institutions (Lacerda, 1998).

2.3 Academic Experiences of students who are deaf at the Tertiary Level

This theme discussed literature on academic experiences of students who are deaf at the university. This theme was further divided into three sub-themes which included: (1) experiences on access to information, (2) experiences on assessment, and (3) experiences on understanding of lectures.

2.3.1 *Experiences on Access to Information*

A university context is challenging for all students. Problems of adjusting to academic life and the obligations imposed often lead to failure and abandonment. Sampaio and Santos (2002) found that for students who are deaf to assimilate new

information and knowledge they have to overcome the shortcomings of their pre-tertiary experience, such as language deficiencies, inadequate study conditions, a lack of logic skills, problems with reading comprehension and difficulty in producing text. University life requires free flowing and meaningful communication with colleagues, teachers and the environment. Effective communication is fundamental in the early years of higher education for improving the chances of success (Diniz & Almeida, 2005; Ferreira, Almeida, & Soares, 2001). Students who are deaf, just like any other students, must deal with expectations, standards and ways of functioning that are different from their previous school experience. Ferreira et al. indicated that for the students to change to new way of learning depends mostly on their personal characteristics and skills. Their history and how they meet the period of self-development as students, which is marked by the construction of identity, autonomy, ideals and interpersonal relationships.

A study by Foster, Long, and Snell (1999) on the experience of students who are deaf in higher education in contexts of inclusion shows that the view they have of communication in the classroom and their involvement in the learning process is the same as that of their hearing colleagues, but they felt less integrated than their hearing colleagues into university life. The study also revealed that many teachers do not bother to make the adaptations that favor students who are deaf and attribute the students' success or failure to support services.

Goffredo (2004) explained that to meet the special educational needs of students who are deaf, the first step is to ensure their entry into the university through the entrance exam. But that does not guarantee that inclusion becomes a reality.

Having overcome the barrier of entry, the next challenge is to remain on the course and this depends a lot on the mediation of the Sign Language interpreter. As Martins (2006) points out, the Sign Language interpreter should be capable of perceiving the difficulties of students who are deaf and of discovering ways and methods for communicating with them.

Some authors question the idea that the mere presence of an interpreter of Sign Language in the classroom ensures that deaf students have the same degree of accessibility to information as students who can hear, even in ideal situations where the preparation of the interpreters is excellent (Marschark, Sapere, Convertino, & Seewagen (2005). Marschark et al. indicated that one of the assumptions of a successful inclusion is that the lengthy structure and information transmitted by a hearing professor to hearing students is appropriate to the knowledge and learning styles of students who are deaf. Students who are deaf form a more heterogeneous group than those who can hear. Majority of students who are deaf grew up in linguistically challenged environments. So they do not have the linguistic competences necessary for making effective use of the interpretation or of the textbooks, and many possibly entered higher education less well prepared than their hearing colleagues (Marschark et al.).

Foster et al. (1999) raised some problems faced by students who are deaf at the tertiary level: a delay in receiving information (the time between what is spoken and its translation); a break in eye contact while the teacher writes on the board, walks across the room or reads a document, which prevents lip reading; and a loss of

information, when it is necessary to choose between looking at the interpreter or observing the professor while they handles an object in the lab or works with images.

Lang (2002) draws attention to two important issues on students who are deaf in tertiary institutions. First, there is little direct communication between deaf and hearing students, and between students who are deaf and their professors, which places them in a dependency situation. Second, support services which, while necessary, may reinforce the stigma of difference, insofar as they require special logistics for adapting schedules, an extra activity load and additional commitment.

Sameshima (1999) investigated the realities of the tertiary experience of New Zealand Deaf, and hard of hearing students. Sameshima interviewed 28 Deaf university students and 15 coordinators of support services for students who are deaf in universities and polytechnics. Sameshima's study pointed out important areas in which included: low quality of education prior to entry into university, not enough trained sign language interpreters and note-takers, lack of awareness about students who are deaf by institutions of higher education, disability office coordinators' lack of knowledge about students who are deaf needs and their lack of signing skills, difficulties with academic discourse because of poor literacy skills and the students who are deaf inability to interact meaningfully with hearing people as a result of communication problems. In addition, she found that seventy-five percent of the participants reported some degree of difficulty in reading and writing English. The gap in Sameshima's study to be filled by the current study is that the current study explored the social and academic experiences of students who are deaf in a tertiary institution in Ghana.

Barnes and Mercer (2003) indicated that regular activities in the university such as attending lectures, understanding academic work, using the library and computer laboratory, having access to support services and obtaining the curriculum, are areas that deaf students have challenges with. These practical problems are sometimes so severe that they actually undermine the students' ability and right to study (Barnes & Mercer). Heward (2000) opined that students who are deaf experience a more strenuous day concerning regular activities than their hearing students. These practical problems pose a continuous hindrance in their academic work. Heward added that these challenges included inaccessibility to the curriculum, permanently allocated seats in the reading rooms, computer laboratories, equipment in the classrooms, and adjustment in taking exams. Academic success of deaf students has much to do with developing a curriculum which promotes positive academic experiences for the students.

Komesaroff (2005) conducted a pilot study involving in-depth interviews with two students who are deaf at Australian universities and found that the students reported inadequate levels of access to interpreting services and lacked awareness to the needs students who are deaf among academic staff. In United Kingdom, Harrington (2000) conducted a study on experiences of deaf students and found some of the communication difficulties that can arise from the interactions and dynamics between lecturers, interpreters, and students. Additionally, Harrington surveyed interpreters and students who are deaf who had received interpreter services and found that many of the interpreters lacked the skills or training necessary to interpret at university level.

Martins (2006) stated that the sign language interpreter should be capable of perceiving the difficulties of students who are deaf and of discovering ways and methods for mitigating them. Interpreters should be a bridge between students, teachers and knowledge that will help overcome the linguistic difference in communicative interaction. Therefore, the author adds, the way the interpreter acts requires a depth of theoretical knowledge of the different fields of study, familiarity with the language used in each situation and educational experience.

Magongwa (2008) employed a qualitative research design to explore the experiences of deaf teachers at Wits University. In-depth interviews and documentary information were used to collect data from twelve current and past DHH students. Current theory, practice and legislation designed to guide the creation of an inclusive education society were examined in order to explore the implications they have for deaf students in terms of inclusion and access to education. The findings revealed high level of academic competitiveness among the DHH students but low social participation. Their academic success was driven by factors such as commitment to Deaf education, the availability of sign language interpreting services, having Deaf peers and their pre-university experiences. The gap to be filled in Magongwa (2008) study is that the current study considered only students who are deaf. The current study did not include hard of hearing students. Also the two studies are different because the current study considered the experiences of continuing students who are deaf in a university

Hyde, Punch, Power, Hartley, Brennan, and Neale (2008) conducted a mixed method survey study on the experiences of DHH students on support services at a

Queensland University in Australia. Seventy-two participants completed a survey about their experiences on support services at the university level. Data were analysed using simple frequency counts and percentages. Findings of the study indicated that while many of the students used the services provided by the students who are deaf Support Program, other deaf and hard of hearing students did not use these services. The current study was conducted in a country in Sub-Saharan Africa and explored social, and academic experiences of students who are deaf.

Mantey (2011) explored the experiences of pupils with post lingual hearing impairment at the University Practice South Inclusive School (UNIPRA) Winneba, Ghana. Mantey employed qualitative methodology in which a case study design was used with interviews and observation to collect data about students in upper primary classes. A sample of 5 pupils with post lingual deafness was involved. Findings from the study revealed that the pupils with post lingual hearing impairment did not have access to facilities that enhanced their success at the inclusive school. Again, there were no positive interactions between the pupils with post lingual impairment and their hearing peers as a result of communication gap. The study further revealed that teachers interacted and demonstrated positively towards pupils with post lingual hearing impairment. The study recommended that teachers should create opportunities in the classroom that could encourage frequent peer interaction and general social skills development. Again, teachers and pupils without disabilities should learn to communicate effectively with pupils who are hearing impaired through sign language. The current study differs from Mantey's study because the

current study was conducted in a tertiary institution whereas Mantey's study was conducted in a basic school.

2.3.2 Experiences on Understanding of Lectures

Marschark et al. (2006) explained that the rationale for educating deaf learners in tertiary schools lies in the belief that students who are deaf, like their hearing peers, can be educated in the same environment. Marschark et al. further reiterated that the basis for including deaf students in a tertiary institution is on the assumption that information communicated by hearing educators for hearing learners is accessible to students who are deaf. Students with deafness enrolled in general educational settings frequently require classroom support services if they are to realize their academic potential. Despite decades of new ideas about the services rendered to students who are deaf, Mitchell and Karchmer (2006), Marschark, Spencer, Stinson and Kluwin (2003) and Traxler (2000) suggested that the students continue to have negative experiences on the support services offered to them in tertiary institutions. Support services available for students who are deaf at the university level as explained by Roe (2008) include: Sign Language interpreting services, note taking services, tutoring services, school library services, computer laborator students who are deaf y, accessibility to internet facilities and the canteen. O'Brien (1998) argued that deaf students must have complete access to all school facilities to enhance their academic and social learning outcomes (Mastropieri & Scruggs, 2000).

Marschark, Sapere, Convertino, and Seewagen (2005) recognized that even with interpreting and note-taking services, students who are deaf at universities receive less information from lectures and tutorials than their hearing peers.

Marschark et al. (2005) conducted a study on students who are deaf experiences on Sign Language interpreting at Rochester Institute of Technology (RIT) in the United States of America. The results of the study revealed that the students did not acquire as much information from lectures as their hearing peers even with experienced interpreters who were familiar to the students. In Australia, Napier and Barker (2004) conducted a study involving four deaf university students in a panel discussion about their perceptions of interpreting in lectures. These students reported that they never accessed 100% of a university lecture.

Opong et al. (2016) explored students who are deaf perceptions about the quality of Sign Language interpreting service rendered them in a public tertiary institution in Ghana. The study focused on students who are Deaf and who use Sign Language interpreting services. A descriptive survey design was adopted to elicit from respondents their views about the quality of Sign Language interpreting services rendered them. A 15-item questionnaire that employed a four point Likert scale was the instrument used to gather data for the study. Out of a target population of 34 respondents 23 were randomly sampled for the study. Among other findings, the study revealed that the quality of Sign Language interpreting services was a major issue of concern to students who are Deaf and who use interpreting services in teaching and learning.

The study recommended that the institution must take steps to ensure that interpreting as a general programme of study is introduced and implemented in the curriculum to train qualified interpreters for the students who are deaf. Also the institution should employ and retain experienced Sign Language interpreters, and

provide them with the needed support to carry on their duties. The gap in Oppong et al. (2016) to be filled by the current study is that, Oppong et al. concentrated only on the perceptions of deaf students on the quality of Sign Language interpreting but did not find out the academic, and social experiences of the students who are deaf.

Lang (2002) discussed two important concerns of students who are deaf that must be addressed in an inclusive education setting. The first is that there is little direct communication between deaf and hearing students. The author added that even between deaf students and their professors, there is little communication which places them in a dependency situation. The second relates to support services, which may give the students a wide range of experiences in their learning. Gesueli (2006) discussed the importance of children who are deaf having contact with Sign Language and with deaf teachers. Gesueli indicated further that the contact makes it possible, for the students who are deaf to get positive learning experiences in the school community, without which the students would feel isolated. The academic and social integration of Deaf and hard of hearing students in an ordinary classroom necessitates the offering of specialized support and an access service in order to overcome communication barriers (Gesueli). Since Deaf and hard of hearing students participate in the teaching and learning process through a visual language (Sign Language), a speaking and hearing environment is inaccessible to them without support or access services. Other common types of educational support services needed by students who are deaf generally are academic advice, tutoring, note-taking and real-time captioning (Marschark et al., 2005).

Gearheart and Weishahn (1980) and Traynor and Harrington (2003) posited that the provision of instruction through technology, computers, televisions, and projectors are necessary for deaf and hard of hearing students. The authors, however, cautioned that instruction in the use of the above equipment should be done as to when the need arises rather than in systematical schedules. This view is supported by Comney and Gogoe (2000) who remarked that deaf and hard of hearing students may miss much of the things taught during lessons while they try to take notes and watch the projectors. They may lose words and sentences and need extra time to make up for the loss.

Dorminy (2013) explored the academic experiences of ten non-signing oral deaf and hard-of-hearing university students in a predominantly signing d/Deaf university environment and the subsequent impact on their identity development. The study used a qualitative grounded theory methodology to focus on the individual meaning that these students ascribed to their experiences using their own words, codes, and categories. Themes emerged in an inductive process that created a substantive theory describing the experience of participants. The final key category that embodied the overall emerging theory is the participant's process of developing a positive identity as a deaf or hard-of-hearing individual.

The support categories for this key category are: (1) Diagnosis: Setting the stage for 'self as different' on the margins of the mainstream: Passing for Hearing, (2) Catalyst: Gallaudet University as a gateway to a new community and language, "meeting others like me". (3) Transitions: Finding a sense of place and self. (4)

Moving from the margins to the center: Developing a positive and affirmative identity as a Deaf or Hard-of-hearing person.

What emerged out of this transitional experience is a transformative and life changing story of individuals who enter a new community, meet others like themselves, learn American Sign Language (ASL), and in the process develop a positive and affirmative identity as a deaf or hard-of-hearing individual. Overall, the emerging substantive theory based on the participants' experiences is one that embodies the participants' process of developing a positive and affirmative Deaf or Hard-of-hearing identity. A gap to be filled in Dorminy's (2013) study is to explore the lived experiences of deaf students using a phenomenological study.

Kennedy (2008) conducted an analysis of the satisfaction rates of deaf and hard of hearing students attending college. Kennedy literature review supported anecdotal evidence that deaf children are severely delayed in their academic experience. Kennedy further stressed that students with hearing loss sometimes take 3 or 4 academic years to accomplish what a hearing student accomplishes in one academic year. This stems from the difficulties of language acquisition with deaf children of hearing parents. Parents trigger the language acquisition process, so any delay in this process has compounding negative effects on the student who is deaf. Students who are deaf struggles with learning the English language does not mean they have issues with critical thinking and metacognition. The combined late onset of language acquisition and subsequent deprivation of regular communication in turn affects literacy skills, since concepts taught at school do not have reinforcements at

home. Once they reach tertiary level, deaf students are expected to remediate several years of delay within a short period of time.

Liversidge (2003) conducted a case-study to explore how DHH students are integrated academically and socially into college at a Carnegie Research University. Liversidge used data gathered from surveys, interviews and focus groups to describe the perspectives of 10 participants, comprising 5 undergraduate and 5 postgraduate students who are deaf. Liversidge's findings revealed that when DHH students are positively integrated into college life, they are more likely to maintain a high level of academic achievements. In addition, Liversidge found that pre- and within college factors, which influenced students in their decisions to enroll and stay in mainstream university, included previous mainstream experience, self-advocacy, level of commitment to completing a course and availability of sign language interpreters and note-takers. The current study is different from Liversidge's study because the current study focused only on undergraduate students.

Komesaroff (2000) explored the experiences of two culturally deaf students in higher education who were completing an undergraduate degree with hearing students. Komesaroff's findings identified key issues for culturally students who are deaf in higher education. The issues included access and support, academic literacy, cultural difference or deficit, language and identity. Komesaroff did not include social experiences and the current study filled that gap.

2.3.3 Experiences on Assessment

The literature reviewed suggested that classroom assessment for students who are deaf and their hearing peers should be the same (Marschark, Convertino, & LaRock, 2006). Since students who are deaf learn the same things as their hearing colleagues, it is imperative that they are assessed on the same things. However, due to challenges that students who are deaf have in communications, some adaptations can be made in order to meet their learning needs. Magongwa (2008) argues that when deaf students are assessment differently from hearing students, the possibility of compromising the standards would be there and they would not have pride in their qualifications. Magongwa (2008) further explain that assessment should be equal if students who are deaf learn the same things as their hearing colleagues.

Bell (2013) explored teaching and learning support for students with hearing impairment at a university in the Western Cape in South Africa. The study focused specifically on educational barriers, coping strategies, assistive technologies, curriculum accessibility as well as support services. The study focused on the teaching and learning (academic) experiences of students with hearing impairment as a case study in the university. This study employed a qualitative research paradigm and used a case study design. Thirteen undergraduate and graduate students who are deaf were purposively sampled for the study.

Data were through a semi-structured interview guide with participating students, university lecturers and a staff member from the disability unit. Data were analysed using ATLAS to code using grounded theory methods. Results of this collected study revealed that all of the participants belonged to the hearing rather than

Deaf identity cultural paradigm, limited curriculum transformation had taken place, existing support services were largely inadequate, a large number of barriers related to teaching and assessment were experienced, a variety of academic and personal coping strategies were used by the students to support their needs, and some critical factors for success were advocated for by the participants. The gap in Bell's study to be filled by the current study is that Bell did not explore the social experiences of deaf students. The current study employed this through the use of phenomenological research design whilst Bell used a case study design.

Schimper (2004), postulated that as part of the evaluation of services rendered to deaf students, researchers requested educators, parents and learners to identify possible advantages and disadvantages. The advantages of services include the emotional and social benefits for both learners who do and do not experience barriers to learning, such as tolerance and understanding of one another and confidence due to the availability of support for the students. The social benefits included learners' development of social skills and self-esteem. The human rights advantage of support services is that learners would enjoy freedom of choice since communication gap is addressed. For example, students who are deaf choose which schools they want to attend, especially those near their homes based on the support the institutions offer. In this case, the routine of home and family life are preserved. The other advantage of support services is that there is a provision of support services such as Sign Language interpreters, tutors and note-takers for learners would eliminate barriers to learning in a mainstream educational setting.

2.4 Summary of Chapter

This chapter reviewed related literature on the research topic, empirical literature and the theoretical framework. The chapter was discussed under the following strands: (1) social experiences of students who are deaf enrolled in tertiary education programs, and (2) academic experiences of students who are deaf enrolled in tertiary education programs. The theoretical framework was also discussed. There are few empirical studies that highlighted the experiences of students who are deaf in tertiary institution.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology used in collecting data for the study. It consists of the research approach, research design, the population, sample size and sampling technique, instrumentation, procedure for data collection, validity reliability and data analysis.

3.1 Research Approach

The study adopted a qualitative research approach to explore the experiences of students who are deaf in a tertiary institution in Ghana specifically the University of Education Winneba. Qualitative approach was appropriate for this study because the study explored participants' lived social, academic, and communication experiences in an inclusive public tertiary institution. Respondents expressed their lived social and academic experiences in the university. Findings of the study were not arrived at by statistical procedures and quantification but by the exploration of participants' experiences through interviews. Creswell (2012) explained that a qualitative research method is used in research to explore people's lives, lived experiences, behaviours, emotions, and feelings as well as organizational functioning, social movements, cultural phenomena and interaction between nations.

Fraenkel and Wallen (2009) stated that qualitative researchers use three main techniques to collect and analyse their data, namely: (1) observing people as they go

about their daily activities and recording what they do; (2) conducting in-depth interviews with people about their ideas, opinions and experiences, and (3) analysing documents. Qualitative research approach presents a means of interacting with the relevant persons, and permits the researcher to interview them to identify their personal experiences and opinions on a subject. Qualitative research focuses on subjective information, such as feelings, experiences or opinions - data that cannot be scientifically quantified. Avoke (2005) posited that realistic researchers believe that gaining knowledge from sources that have “intimate familiarity” with an issue is far better than the objective distancing approach that characterizes quantitative approaches.

3.2 Research Design

This study employed a phenomenological design because the participants described their lived social, and academic in a university in Ghana. Phenomenological design permitted the researcher to discover participants’ feelings about their current experiences and to understand their personal meaning (Johnson & Christensen, 2008). Ary, Jacobs, Sorensen, and Razavieh (2010) explained that phenomenological studies are meant to explore participants’ perspective and experiences of a phenomenon. Rooted in philosophy and psychology, the assumption is that there are many ways of interpreting the same experience and that the meaning of the experience to each person is what constitutes reality.

Phenomenological studies are unique because they put subjective experience at the center of the inquiry. Phenomenology moves from individual experience to a

universal essence and always asks what is the nature or meaning of something (Ary et al., 2010). In phenomenological study, the researcher must first identify a problem for which, in order to better understand its features, an examination of shared experience is necessary. Broad philosophical assumptions must be specified and examined with a view to bracketing out personal experience. In this study, the researcher interviewed individual respondents and gave each respondent the opportunity to express their experiences in a tertiary institution. Interview data were collected from those who experienced the phenomenon

3.3 Population

The population for the study were 36 of students who are deaf, comprising 24 males and 12 females aged between 20 and 35 years (mean = 25 years). At the time of the study, the students were pursuing courses in three different Departments: the Departments of Special Education, Information and Communication Technology, and Graphic Design. The population was chosen for the study because the students had spent more than one academic year in the university. The target population had bilateral hearing losses ranging from severe to profound, and all of them communicated through Ghanaian Sign Language. All the students were within the same age range and graduated from the Senior High Secondary Technical School for the Deaf at Mampong-Akuapem, in Ghana. Population and sample of the participants are presented in Table 1.

3.4 Table 1. Population and Sample size of the Participants

Department	Population	Sample
Special Education	27	9
Information and Communication Technology	5	2
Graphic Design	4	3
Total	36	14

Source: Author's Computations from field Data, December, 2015

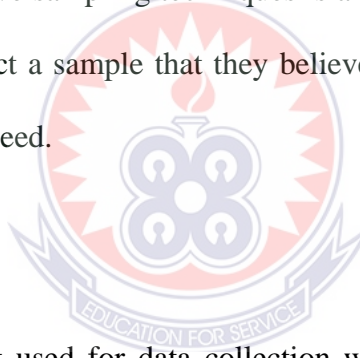
3.5 Sample Size

The sample size for the study was 14 deaf students, comprising 8 males and 6 females aged between 22 and 28 years (mean = 25 years old). Nine of the participants were from the Department of Special Education, 2 from the Information and Communication Technology Department, and 3 from the Department of Graphic Design. Four of the participants were in Level 400, 5 in Level 300 and 5 in Level 200. Level 100 deaf students were not included in the study because the study considered only deaf students who had more than one year learning experience in the university. Additionally, Levels 200, 300, and 400 deaf students were chosen because they had more than one-year experience in the university and were accessible during the time of the study. All the participants had their Senior High School education at a Secondary/Technical School for the Deaf in Ghana. None of the deaf students had additional disabilities. The hearing level of participants ranged from severe to profound hearing loss (see Appendix C for audiograms of participants). Their

communication mode at UEW was Ghanaian Sign Language. All respondents depended on interpreting services during lecture and examinations.

3.6 Sampling Technique

Purposive sampling technique was used to sample deaf students who had more than one year learning experience in the university. Participants who had severe to profound bilateral hearing loss were purposively sampled for the study. Only students whose preferred mode of communication was Ghanaian Sign Language (GSL) were selected for the study. Fraenkel and Wallen (2009) and Avoke (2005) explained that purposive sampling techniques is a technique in which researchers use their judgment to select a sample that they believe, based on prior information, will provide the data they need.



3.7 Instrumentation

The instrument used for data collection was semi-structured interview. The interview offered the researcher the opportunity to gather and explore pertinent data about the experiences of deaf students in a tertiary institution in Ghana. Creswell (2012) and Hancock (2002) stated that, in phenomenological studies, the primary measuring instrument that could give the participants the opportunity to express their candid opinions about what they feel about a particular phenomenon is interview. In this study, therefore, the researcher employed interview as an instrument in order to aid participants to express freely their views about their individual experiences in the university (See Appendix A for the interview guide).

The semi-structured interview guide was grouped into two parts. The two parts focused on the key strands of the research questions. Part 1 focused on the social experiences of the participants. This part was sub-divided into four parts, namely: (1) experiences at social gathering, (2) experiences at Halls of residence, (3) experiences with the university staff, and (4) communication experiences and attitude of lecturers and hearing. Part 2 of the interview guide focused on the academic experiences of deaf students at the university. This section had three sub-themes, which included: (1) experiences on access to information, (2) experiences on understanding of lectures, and (3) experiences on assessment. All the 2 parts had a major question item, which inquired about their respective strand from the research questions. The major question items had probes and prompts. The probes and prompts gave directions to respondents on the themes.

3.7 Validity and Reliability

The semi-structured interview guide was discussed with the researcher's thesis supervisor- a professional in the field of deaf education, before it was administered. The thesis supervisor's suggestions helped to the researcher to rearrange questions/ items (Appendix A for the interview guide). A male individual deaf from the Ghana National Association of the Deaf (GNAD) helped the researcher to review the video-taped interview. Two skilled sign language interpreters in the University of Education, Winneba (UEW) also reviewed the video-recorded interviews to ensure the accuracy of translations. The two male interpreters had bachelor's degree in Special Education (Education of the Hearing Impaired). Each

video-recorded interview and transcription was given to the thesis supervisor to check on the accuracy of the recordings and transcriptions. Merriam (2009) indicated that a review by a supervisor on some of the videotapes and assessing whether or not the findings are consistent with their knowledge of the Deaf community, based upon the data, helps to ensure the soundness of the findings.

3.8 Procedure for Data Collection

The researcher sought permission from heads of the various departments, whose students participated in the study, with an introductory letter from the Department of Special Education (Appendix B shows a scanned copy of the introductory letter). The purpose of the study was explained to the participants. The researcher gave a two-day training on how to administer the interview to two sign language interpreters who were assigned to the students who are deaf in the respective departments. The two sign language interpreters were chosen because they were the permanent interpreters for the participants. The two interpreters worked as full-time male interpreters. The two trained interpreters' ages were 28 years and 26 years, respectively, and both received a bachelor's degree in Special Education (Education of the Hearing Impaired) from the University of Education, Winneba.

The two sign language interpreters were tasked by the researcher to use one week for the interview at the students' convenient time in the presence of the researcher. The researcher was present at the interview session to ascertain that they interpreted the interview items as they were stated in the interview guide. Participants were asked to give their consent to participate in the study. Each

participant was interviewed individually at a negotiated time. Each interview lasted between 30 minutes to one hour, and was video-taped by a photographer with a Samsung Galaxy Note 3 phone. Participants were interviewed at a quiet place in a lecture hall where there were no obstructions. The participants were given the opportunity to express their feelings without any pressure on them. Each sign language interpreter was tasked to transcribe the video-taped GSL interview data into written GSL in Microsoft Word. Data were translated verbatim from written GSL to scripts in grammatically correct English language.

After the transcriptions, the two trained interpreters and the researcher met to cross-check each of the transcriptions to ensure they depicted what was said in the interview. The researcher is fairly proficient in GSL. Having the interview conducted with a sign language interpreter who was familiar with the signs of the respondents facilitated communication during the interview and that no information was lost because the participants were more familiar with their interpreters.

3.9 Ethical Considerations

In any type of research that is conducted with human subjects, ethical concerns related to participants' safety are of the utmost importance. To ensure that participants' health, safety, respect, and fidelity were upheld, the researcher discussed with the participants voluntarily regarding their participation in the study without any form of coercion. To guarantee their confidentiality, the researcher did not ask participants to provide data that revealed personal identity. The rights of respondents at every stage of this study were treated with utmost care. The researcher informed

participants regarding who would have access to the information in the study and explained the purpose of each person having the information.

3.10 Data Analysis

In the analysis of data, two trained interpreters read the interviews from the videotapes and transcribed them in written English language. The researcher developed codes with the emerging themes from the transcriptions. Expressions of the participants were used for the analysis.



CHAPTER FOUR

PRESENTATION AND ANALYSIS OF RESULTS

4.0 Introduction

This chapter provides the analyses and discussion of findings of the study analysis. Data were analyzed to reflect the following themes as raised in the research questions:

1. What social experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?
2. What academic experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?

The various themes enabled the researcher to explore the experiences of deaf students at the University of Education, Winneba, Ghana.

4.1 Research QUESTION 1. What social experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?

To answer this research question1, the interview data collected from the respondents were used. The data analysis were done according to each of the following experiences under the social experience:

- Experiences at halls of residence
- Experiences at social gatherings
- Experiences with university staff

- Communication experiences

Experiences at Halls of Residence

Participants' experiences in their halls of residence were explored under sub-themes. The sub-themes included all the experiences the students had concerning their quest for accommodation, and their stay in the same room with hearing colleagues. Concerning how participants got access to their Halls of residence, it was evidently clear that, it was easy for them to get access. Four students remarked that:

Deaf students are assisted in gaining accommodation on campus (Expression from student 3).

I get accommodation through the help of the coordinator for Resource Center for Students with Special Needs. (A verbatim expression of a Post-lingual student 5).

Interpreters always ask me on WhatsApp if I am interested in staying on campus. They secure accommodation for us. (A verbatim expression of a Post-lingual student 9).

My Hall of residence is friendly one, it seems like everyone is free to have access to anything in the Hall so it is not restricted. I paid my accommodation fees on time so it was easy for me to have access to the Hall. (A verbatim expression of a Pre-lingual student 1).

A few respondents also indicated that they enjoyed being in the same room with their hearing students. They stressed that the hearing students were accommodative and did not pose any challenge to them in the room. Four respondents said:

I know it is normal being in the same room with other hearing students because they will assist me in times of an emergency because they are

aware I am a deaf student. (A verbatim expression of a Pre-lingual student 1).

I feel that being in the same room with hearing students is a good thing it helps me to live a normal life. However, one problem is communication. (A verbatim expression of Post-lingual student 4).

I feel normal when I am in the same room with my hearing colleagues. (A verbatim expression of Post-lingual student 5).

I have no problem staying in the same room with hearing people because we are all friends so they don't disturb me but respect me. (A verbatim expression of Post-lingual student 11).

Two out of 14 respondents however, did not like the idea of being in the same room with their colleague hearing students. They indicated that the hearing students gossiped about them and did not see them as coequals. They stressed their disquiet by indicating:

It is difficult to be in the same room with hearing students. Sometimes my roommate will send the room key to lecture or even home when am out to the wash room which makes me suffer and very uncomfortable. (A verbatim expression of Post-lingual student 8).

Sometime it is very challenging to be in the same room with the hearing students because when a deaf friend comes to visit you, the hearing students make fun of you and like cheating deaf people on their food and other things and that brings problem to me. (A verbatim expression of student 14).

Experiences at Social Gathering

Responses from the participants suggested that some of them (deaf) saw social gatherings as an avenue to mingle with their hearing colleagues and learn their ways of doing things. They thought that, since there were no sign language interpreters

available at such places, they saw it as a waste of time and did not take any interest in being at such gatherings. As part of their responses, five respondents stated:

Being in a group meeting with my hearing course mates makes me feel down hearted because, they don't inform me what they discuss or their contributions to the work. I feel that they will make fun of the language I use, if I am being too friendly toward them. (A verbatim expression of Pre-lingual student 1).

It is always okay to be at social gathering with other students. It makes me feel that I am included in both curriculum and co-curriculum activities of this institution. It brings a sense of belongingness. (A verbatim expression of Post-lingual student 3).

I interact with my hearing peers because they advise us on how to keep good socialization with them. I always interact with my hearing colleagues who know Sign Language. (A verbatim expression of Post-lingual student 7).

I feel boring at students' gathering in the university because of the absence of Sign Language interpreter so sometimes I go back to my room and sleep. I think hearing people socializing with the deaf destroys the deaf so always exclude myself. (A verbatim expression of Post-lingual student 11).

Most often I don't join student's gathering because I think hearing students will not pay attention to us deaf. (A verbatim expression of Post-lingual student 13).

However, most of the students who are deaf expressed their discomfort about being around hearing students. They indicated that the hearing students made them feel isolated because of communication gap. Sometimes, even the few hearing students who could sign did not give the students with deafness the opportunity to express themselves since the hearing students believe the Deaf have nothing to offer. In their account, the students with deafness intimated:

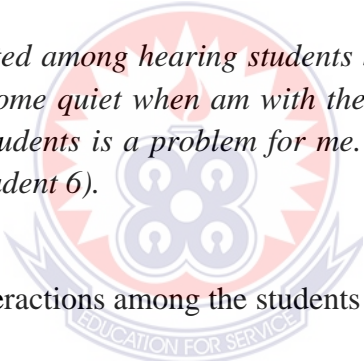
Yes, I have felt isolated among my hearing peers because they wouldn't let me contribute to issues they discuss which I am also a member. (A verbatim expression of Pre-lingual student 1).

I often feel excluded and isolated when I am among hearing students. This is because I am not able to participate in what is being discussed so I often stand aside." (A verbatim expression of Post-lingual student 2).

To get different information from hearing peers through group discussion, sometime, I feel isolated with hearing students. (A verbatim expression of Post-lingual student 3).

I always interact with my hearing colleagues who know Sign language. Yes, I have felt isolated because of communication problem. (A verbatim expression of Post-lingual student 5).

Yes I feel isolated among hearing students because their signing level is low so I become quiet when am with them because communicating with hearing students is a problem for me. (A verbatim expression of Post-lingual student 6).



Concerning interactions among the students who are deaf, most of the students did not have any problem communicating with their colleagues in Sign Language. However, the few post-lingual students expressed that it was difficult for them to understand their colleagues when they sign to them. These accounts were recorded as:

When interacting with my deaf colleagues, I do not face any challenges in the signs they use because I understand them all. (A verbatim expression of Pre-lingual student 1).

I also face challenges when communicating in Sign Language with my deaf colleagues because they are very fast in signing the concepts. Also, it is because I am now learning the Sign Language. (A verbatim expression of Post-lingual student 2).

No, I do not face any challenge in signing with deaf colleagues because they all know Sign Language as well as understand my culture better. (A verbatim expression of Post-lingual student 5).

Yes I understand my deaf friends clearly because their signing is same as mine, we all have the same culture so socialization is easy. (A verbatim expression of Post-lingual student 8).

I don't always understand my deaf colleagues because some became deaf late and don't know most of the signs so they have to sign slowly before I can understand. (A verbatim expression of Post-lingual student 9).

Yes I face challenges in the sign they use because I don't understand most of them. (A verbatim expression of Post-lingual student 13).

We use Ghanaian Sign Language so I understand all of them. (A verbatim expression of Pre-lingual student 14).

Experiences with University Staff

Participants were also given the opportunity to express their experiences with the university teaching and non-teaching staff. The students gave mixed expressions since different students had different encounters with the staff. Five of the students responded:

The university staff are mostly friendly towards us, the deaf students. They take time when communicating with us instead of rushing. (A verbatim expression of Pre-lingual student 1).

When I had a problem with my portal, I went to my department to reset my portal. I went to my department for registration even though the deadline had passed, the staff helped me without any complain. (A verbatim expression of Post-lingual student 2).

With my experience with the university staff, last time I went to the department to check on my student's portal. I told the lady there but she sacked me and asked for my ID card. The lady refused to write for

me thinking deaf can't write so she was making gestures to tell me but still I did not understand so I left. (A verbatim expression of Post-lingual student 7).

In my department the staff are good but I don't know that of other departments. (A verbatim expression of Post-lingual student 13).

Some staff are calm, some are not. For example, I had a problem with my result so I went to north campus but I couldn't communicate with the man at MIS so he was angry and asked me to bring interpreter which is not fine because am deaf. (A verbatim expression of Pre-lingual student 14).

Communication Experiences on Attitudes of Hearing Colleagues and Lecturers

Communication which is the process of exchanging information between two or more people has become an issue of concern among students who are deaf. At the University of Education, Winneba, it is supposed that once students who are deaf have been provided with Sign Language interpreters, then their communication needs have be solved. This sub-theme explored from the students how they felt about communication in the university. The students indicated:

One other major challenge I encountered was with group work. In the first place, I had difficulty figuring out the group I belonged to. Most of the time, I did not know the time the group was meeting, and even when I took part, I could not effectively communicate with the hearing students. I sometimes felt that assignment should be given on individual basis. (A verbatim expression of Post-lingual student 3).

One of my challenges as a deaf student at this university is communication with both lecturers and colleagues. Initially, it was very difficult to communicate even with other deaf students because I did not know Sign Language when I started UEW. Consequently, during 1st year, 1st year, I felt completely excluded and isolated. I did not know or understand what lecturers were talking about since the

only support service we had then was Sign Language interpreters. At that time, I attended lectures only to know the topics that the lecturer covered so that I could read on my own. I sometimes felt that there was no need to attend lectures since I could not understand. I depended heavily on the course books. (A verbatim expression of Post-lingual student 5).

Another group of students also shared their communication needs. They indicated how their inability to communicate with their hearing colleagues and lecturers made them feel isolated. They stated that sometimes their hearing colleagues made mockery at them because of their language. They intimated:

Communication problem among hearing students as well as lecturers who do not know Sign Language really worry me. I am isolated in socialization when I join hearing students because I cannot communicate with them. (A verbatim expression of Post-lingual student 8).

In this university, the interpreters are not skillful so when I sign to them sometimes they don't understand and they do not communicate my messages to the lecturers and my hearing colleagues. For the lecturers, only one of them can sign and that is the Sign Language lecturer. (A verbatim expression of Post-lingual student 11).

The few post-lingual students also shared their experiences concerning their communication needs as students. They indicated:

Sometimes I have problem with my voice because I am hard of hearing and can speak little so most often I write. Most of the lecturers can't sign so they write. Only those in education for the hearing impaired can sign and even that most of the hearing people don't show respect to us deaf, they make fun of the Sign Language and I become angry and warn them. (A verbatim expression of Pre-lingual student 1).

One thing I don't feel comfortable is that some lecturers think I can talk so when I ask a question they insist that I talk which I don't like

because not all the words I can say loud and clear that is why I prefer signing. (A verbatim expression of Pre-lingual student 14).

However, from the minority's perspective, there were no problems for them in the University. They made this evident when they stated:

For me I have no challenge at all in the university because I do what I need to do to pass my exams.” (A verbatim expression of Post-lingual of student 2)

4.2 Research Question 2: What academic experiences do students who are deaf go through when enrolled in inclusive tertiary education program?

Research objective 2 was meant to explore the academic experiences of students who are deaf at the University of Education, Winneba. Three sub-themes were raised to elicit data to support this objective. The sub-themes included experiences of deaf students with regards to access to information, deaf students' experiences on how they understand lectures, and experiences on assessment.

Experiences on Access to Information

Access to information is a critical requirement in the education of students who are deaf, since they are unable to perceive oral information auditorily. The students expressed diverse views as to whether or not they had access to information in the university. Some of the students indicated that, in order for them to have access to information at the lecture halls, in the absence of their sign language interpreters, they employed the services of students who could sign. Others explained that, since their main source of information at the lecture hall was dependent on their interpreters, if the interpreters were absent, the students left the lecture because they

did not see the need to be at a lecture where they would not benefit. In their own expressions, the students noted:

We would sometimes call our course mates who can interpret when a professional interpreter is not available. (A verbatim expression of Pre-lingual student 1).

In the absence of Sign Language interpreters, I access lecture via lip reading to obtain some clues as to what the lecturer is talking about. This method, however, is not accurate. I also depend on projections on power point when there are no Signs Language interpreters. (A verbatim expression of Post-lingual student 2).

In the absence of interpreter, I sit and wait to collect notes from somebody to copy because my mates refuse to sign for me. (A verbatim expression of Post-lingual student 5).

Some of the students also reported that some lecturers made available their notes for the student to copy while other students said that lecturers did not give them their lecture notes.

Yes, lecturers give us their notes to photocopy. (A verbatim expression of Pre-lingual student 1).

We are given photocopies of lecture notes, however, they usually reach us late. (A verbatim expression of Post-lingual student 3).

No, lecturers never give us notes to photocopy. (A verbatim expression of Post-lingual student 6).

Providing services that are ineffective does not promote the education of students who are deaf (minority group) who are found in the midst of a hearing population (majority group). However, it was prudent to inquire from the deaf

students the effectiveness of the services rendered to them in the university. The respondents gave their accounts as follows:

The services are effective in that they enable us to be included. They help to promote our understanding of what is taught during lecture. They also enhance retention. (A verbatim expression of Post-lingual student 2).

The services are not perfect in saying what lectures is going on. They interpret slowly. I would like the interpreters to interpret clearly. (A verbatim expression of Post-lingual student 3).

Sometimes interpreters don't give clear explanations at lectures. (A verbatim expression of Post-lingual student 4).

The 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 become boring. (A verbatim expression of Post-lingual student 11).

The interpreting service help us but not as effective as hearing people get information from lecture, but it help us to improve on our academic work. (A verbatim expression of Post-lingual student 5).

Response from the majority of the students indicated that, even though the presence of an interpreter in a lecture was beneficial to the deaf student, yet, not every interpreter could provide services that were effective to all students. Again, it was revealed that although sign language and note-taking services were provided to deaf students, it was not provided on regular basis. Some of the respondents intimated:

In this university I have interpreting service, resource services, and note-taking services. The support services are not provided on regular basis. (A verbatim expression of Post-lingual student 5).

Yes interpreters are always punctual but note-takers are not punctual. (A verbatim expression of Post-lingual student 8).

No I don't always have note-takers and interpreters sometimes don't come. (A verbatim expression of Post-lingual student 12).

From the minority point of view, sign language interpreters available at the university were not proficient, so they preferred technology to sign language interpreters. Other forms of support services such as projections, tutoring, counselling, resource center, health care and photocopies were also mentioned occasionally. For example, some of the participants stated that:

I have technology to translate big words lecturers use at lectures. Most often I don't have interpreters and note-takers. I had interpreter at level 100, but was not skillful so that interpreter only writing notes for me. Interpreters absent themselves very often. Sometimes, the interpreter may be good but I have problem when interpreter only finger spells all the time, I don't understand. (A verbatim expression of Post-lingual student 7).

The support services available to deaf students at UEW include Sign Language interpreters, note takers, projections, and photocopies of lecture notes. (A verbatim expression of Post-lingual student 2).

The services I have seen at the University of Education, Winneba are tutoring service, counselling service, disability service, students funding, health care, resource center service, and advisor. (A verbatim expression of Post-lingual student 9).

From the responses of the respondents, it was obvious that the University of Education, Winneba has made available services such as Sign Language interpreting, note taking, tutoring, counselling, and health care services. These services help the students who are to learn in the same environment with their hearing colleagues

without any hindrances. Respondents gave different accounts concerning their experiences during lectures. They noted:

Yes sometimes I encounter some challenges at lecture hall when the Sign Language interpreter is not available. It makes me feel lonely in class and do not know what is going on. (A verbatim expression of Post-lingual student 4).

When there is a change of venue, sometimes I don't hear but sometimes the class rep also inform me. Sometimes, I feel included as a student during lectures but I also become afraid to ask question in class because some lecturers show the attitude that deaf students questions may not be important. In this university, the interpreters are not skillful so when I sign to them sometimes they don't understand. (A verbatim expression student 6).

My challenge is that, technology words are big so interpreters don't understand therefore interpreting becomes confusing. (A verbatim expression of Post-lingual student 7).

When interpreter is absent, class becomes boring. Again, students' attitudes towards the deaf are very poor so if the university can give education on disability it will be good. Also, the university environment is not good for disable people example, cars move anyhow, anywhere and don't even care about deaf people so moving on campus is difficult. (A verbatim expression of Post-lingual student 10).

Some lecture rooms become dark around 5:30pm so seeing the hand of the interpreter is difficult but if the room is bright I can see. Also the seating arrangement is not the best. Deaf people class room must be round but here is different. (A verbatim expression of Post-lingual student 12).

Despite the concerns raised by respondents, they elaborated a number of the benefits they derive from the services at UEW. Responses from participants are outlined as:

These services are beneficial because they motivate me to participate during lectures, and to learn hard on my own. In the absence of these support services, I can feel how important they are in our education in the university. (A verbatim expression of Post-lingual student 2).

These services, especially note takers are benefit to me. It always appear in quizzes and exams as well as I use to learn after class. (A verbatim expression of Post-lingual student 4).

I get benefits from interpreters but for note-takers sometimes. (A verbatim expression of Post-lingual student 5).

The support services given to me are beneficial to me because without them, our class becomes boring so we enjoy. (A verbatim expression of Post-lingual student 13).

The support services are beneficial to me because interpreters help me to hear whatever goes on at lecture and outside lectures. (A verbatim expression of student 14).

However, from the minority perspective, the services available at the university did not benefit them in any way since according to them the Sign Language interpreters were not proficient enough to render them services that could make them enjoy lectures. One respondent remarked:

I don't benefit from interpreters because they are not skillful so I don't enjoy. (A verbatim expression of Post-lingual student 7).

The responses indicated that the students who are deaf appreciate the efforts of the services available at the university. They indicated that Sign Language interpreting are of use to them even though few of the respondents did not agree. Concerning change in venue and time of a lecture, the students gave different

accounts. They indicated that most of the time they do not hear about change in venue and sometimes lectures were fixed for late afternoons and the evening made it difficult for them to see their interpreters clearly. They indicated:

When there is a change of venue, sometimes I don't hear but sometimes the class rep also inform me. Social gathering is a problem for me. Because am deaf I always socialize with my deaf colleagues which prevents me from getting information outside the school. (A verbatim expression of Post-lingual student 6).

Sometimes, our class rep thinks deaf people will get the information which is not so but rather deaf people get the information when the thing has already happen and this has always be my (A verbatim expression of Post-lingual student 8).

Experiences on Understanding of Lectures

Another key issue that was explored in this study was to find out students who are deaf experiences on understanding of lectures. The students gave different accounts concerning how they understood lecturers. Some of the students indicated that if lecturers used Sing Language, then understanding the lecture was not difficult for them. Others stressed that since the lecturers could not sign, they did not understand them even though Sign Language interpreters were present. The students' accounts have been recorded as:

Sometimes, lecturers communicate in a language that I understand. (A verbatim expression of Pre-lingual student 1).

Yes, I understand lecturers who know my Sign Language. (Expression of Post-lingual student 4).

No, lecturers don't communicate in Sign Language so I don't understand them. (A verbatim expression of Post-lingual student 5).

It is difficult to understand lecturers because some lecturers talk fast and if the interpreter is slow it becomes difficult for me to understand. (A verbatim expression of Post-lingual student 12).

On the issue of the preference for either simultaneous or consecutive interpreting, different students gave different accounts. Some of the students stated that they preferred one of the two interpreting types. They stated:

I like simultaneous interpretation because of the accuracy, that is, with simultaneous interpretation, there is little deviation from what the lecturer is teaching. (A verbatim expression of Post-lingual student 3).

I would like my Sign Language interpreter to use consecutive but not simultaneous. (A verbatim expression of Post-lingual student 5).

I prefer consecutive interpreting to simultaneous interpreting. (Expression of Post-lingual student 6).

I prefer consecutive interpreting. (A verbatim expression of Post-lingual student 7).

If I say hear before sign, interpreter may sign wrong thing if he is not skillful and also if sign as the lecturer talks at the same time may sign wrong thing. (A verbatim expression of Post-lingual student 13).

However, one student indicated that they preferred both the consecutive and simultaneous interpreting. The student said that depending on the context and how it was used, both the consecutive and simultaneous interpreting mode could be useful. The student intimated:

I want the interpreters to use both the consecutive and simultaneous methods in interpreting for me because I can combine both of them at lectures. (A verbatim expression of Pre-lingual student 1).

Experiences on Assessment

In as much as it is recognized that assessment is key in education, it is important to note that assessment should give a fair ground to all students irrespective of their disabilities. This strand inquired from deaf participants their experiences on assessments in the university. The students indicated that they were often given prior notice before their assessment dates. Although some students preferred that their assessment be separated from their hearing colleagues, others thought it fair for all of them to be assessed on the same subject content taught since they were all taught the same. Also, 3 of the respondents suggested that they should be assessed based on how they learn and how they believe their learning was different from their hearing colleagues. However, some of the students did not agree to that assertion. In their interviews, they intimated:

Yes, we are given prior notice before quizzes or exams. No, my assessment is not different from that of my hearing colleagues because the curriculum that we use is all the same. I would like to be assessed on how I learn and how it differs from that of my hearing colleagues. (A verbatim expression of Pre-lingual student 1).

We are given prior notices before quizzes and exams. Also, there are Sign Language interpreters available to assist deaf students during quizzes and exams. The assessment of deaf students is not different from that of hearing students. However, in the case of deaf students, more attention is given to content rather than grammar since deaf students generally have problem with English Language, especially grammar. If I had the choice, I would like to be assessed through objective questions, fill in the blank spaces and questions requiring short answers rather than essay questions which require deep thinking and extensive use of grammar. (A verbatim expression of Post-lingual student 3).

If I get the opportunity, I want additional time and there should always be interpreter at every exams hall. (A verbatim expression of Post-lingual student 13).

Analysis of the transcript from respondents revealed that some of the students who are deaf did not have any communication challenge pertaining to their assessment. They said that they were assessed on what they were taught. They indicated:

Yes, we are given additional time to complete quizzes and exams. (A verbatim expression of Pre-lingual student 1)

I have no problem with how we are assessed. It is a thing worthy of commendation that more time are given me to complete my work during both quizzes and exams. The attitude of lecturers toward deaf students are commendable. They show concern and care. They motivate both disabled and non-disabled students to study hard. (A verbatim expression of Post-lingual of student 5)

However, other students did not support the idea that assessment at the university has been fair to them. The respondents reported:

No, we are not given additional time to complete our quizzes and exams. (A verbatim expression of Post-lingual of student 2)

No additional time is given to me during my quizzes and exams. (Expressions of student 1 and student 2)

No additional time is given to deaf in terms of assessment, we complained past they refused. (A verbatim expression of Post-lingual student 13)

From the analysis, it is indicative that although assessment is a major challenge that needs redress in order to promote the education of students with deafness, yet not all students agreed to that since they indicated that the university provided fair assessment to them.

CHAPTER FIVE

DISCUSSIONS OF FINDINGS

5.0 Introduction

This chapter presents the discussion of findings from the data analysis.

5.1 Research Question One: What social experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?

Research question one explored the social experiences of students who are deaf were pursuing various degree programs at the UEW at the time of the study. Findings from the study, revealed that gaining accommodation at their halls of residence was easy since preference was given to students with special needs. Majority of participants indicated that being in the same room with hearing students was normal for them since hearing room-mates did not pose any challenge to them. Specifically, they stated that their hearing room-mates were accommodative. However, some of the students who are deaf did not like the idea of being in the same room with their hearing colleagues because they felt that hearing students gossiped about them and did not see them as coequals.

Responses from participants suggested that whereas some students saw social gatherings as an avenue to mingle with their hearing colleagues and learn their ways of doing things, others did not see such meetings as accomplishing that. Some participants, however expressed, their disquiet about being around hearing students. They indicated that the hearing students made them feel isolated because of

communication gaps. Sometimes, even the few hearing students who could sign did not give the students with deafness the opportunity to express themselves since the hearing students believed the Deaf have nothing to offer, so they preferred being with other deaf students than with the hearing peers. However, the few post-lingually deaf students expressed that it was difficult for them to understand their colleague students who were deaf when they signed to them. Also, the students gave mixed expressions since different students had different encounter with the staff. These findings on participants' social experiences support studies by Fobi and Oppong (2015), Ling (1989) and Oppong & Fobi (2016) who found that students who are deaf have fewer natural opportunities for meaningful conversational interaction and, as a result, are less likely to acquire the full range of pragmatic skills needed for successful communication in an inclusive setting.

Suarez (2000) also found that, when students who are deaf are found in the same setting with their hearing colleagues, then it was necessary for them to be provided social skills intervention programs. Suarez concluded that a social skills intervention program resulted in significant improvement of assertive behavior in students who are deaf school life, as well as increased emotional adjustment, social adjustment, and self-image as observed by the students' teachers. Suarez stressed that the students became better adjusted when greater attention was given to social-emotional aspects of the students' development.

Shevlin and Rose (2003) commented that persons with disabilities, including students with hearing impairments, were subjects to ridicule especially because of their deficit in speech and language. Positive social experiences for students with

hearing impairment involve the removal of prejudice and discrimination that they deal with. Riddell et al. (2004) observed that students with hearing impairment in an inclusive setting suggested that their acceptance by their peers were not good enough on account of their communication difficulties. Foster and Brown's (1988) study revealed other factors which attracted DHH students to the RIT as the availability of support services such as sign language interpreters and note-takers. The study found that, although the students were integrated in a hearing classroom, they still felt isolated. Tinto (1975) further indicated that social integration of students with deafness is dependent on their ability to become involved in the university community as well as connected to the peer culture and engage in the social life of the institution.

Responses from participants indicated that, generally, students with deafness had a lot of experiences on communication problems at the lecture halls. They indicated that their problems were compounded more especially when sign language interpreters were absent. The respondents indicated how they felt left out when their interpreters were absent. They stressed that they were not informed about pertinent issues such a change in venue and time of some lectures when their interpreters were absent. The post-lingual students intimated that when they attended lectures, they were compelled by lecturers to use their voices because they could talk.

The participants stated the practices of some of the lecturers made them feel very uncomfortable at the university. Other hearing students and lecturers were also found to make mockery at the students with deafness. These findings are supported by Murphy and Newlon (1987), Foster and Brown (1989), Cawthorn and Cole

(2010), Salter et al. (2015), Sampaio and Santos (2002), and Foster et al. (1999) who found in their studies that students with deafness feel lonelier when they are in the company of hearing students in the university. Foster and Brown added that in the university, students with deafness experience feelings of separation and isolation from hearing peers. Cawthorn and Cole (2010) indicated that students who are deaf face unique challenges in their efforts to succeed in the university setting. Cawthorn and Cole explained further that these challenges make most of them feel uncomfortable and become more glued to only students who are deaf. Salter et al. found that in the mainstream setting, teachers' lack of understanding regarding the impact of deafness significantly affected the students' learning experiences. Sampaio and Santos (2002) indicated that, for students who are deaf to assimilate new information and knowledge, they have to overcome the shortcomings of their pre-tertiary experience, such as language deficiencies, inadequate study conditions, a lack of logic skills, problems with reading comprehension, and difficulty in producing text. Foster et al. (1999) also found that many teachers do not bother to make the adaptations that help students who are deaf to learn and attribute the students' success or failure to lack of support services.

These findings were supported by Tinto's (1975) model of students' retention or departure. For instance, Tinto indicated that social integration is dependent on the student's ability to become involved in the university community as well as connect to the peer culture and engage in the social life of the institution. This implies that, when students who are deaf are exposed to challenges in communication, they are likely to depart from the activities of the university or even quit. Tinto postulated that

whereas academic integration is a requirement for students' retention, social integration is not. However, both academic and social integration have a potential influence on student involvement and retention in a university.

5.2 Research Question Two. What academic experiences do students who are deaf go through when enrolled in inclusive tertiary education programs?

Research question 2 inquired from participants their academic experiences at the university. Results of the study revealed that in order to have access to information at the lecture hall in the absence of their sign language interpreters, students who are deaf employed the services of students who could sign. Other students did not see the need to employ the services of their colleagues in the absence of an interpreter. Some of them made available their lecture notes for students to photocopy whereas other lecturers did not make available their notes to the students. The students further indicated that **mostly** they were given prior notice before their assessment dates and were assessed on subject matters they had been taught. Some of the students indicated that if lecturers used language they understood then understanding the lecture was not difficult for them. Others stressed that since the lecturers could not sign, they did not understand them even though Sign Language interpreters were present.

On the issue of the preference for either simultaneous or consecutive interpreting, different students gave different accounts. Some of the student stated that they preferred one of the two interpreting types. These findings are supported by Commy and Gogoe (2000) who argued that, when students who are deaf do not have

note-takers, they may miss much of the things taught during lessons while they try to take notes and watch sign language interpreters and projectors. Komesaroff (2005) found that many of the interpreters lacked the skills or training necessary to interpret at university level. Gearheart and Weishahn (1980) and Traynor and Harrington (2003) admitted that the provision of instruction in the use of technology and computers, televisions and projectors are necessary for DHH students. Komesaroff (2000) identified key issues for culturally students who are deaf in higher education. The issues included access and support, academic literacy, cultural difference or deficit, language and identity. Tinto (1975) indicated that academic integration is dependent on a student's levels of academic preparedness and readiness as well as their ability to meet academic expectations. Tinto added that the more involved a student is in their learning and development, the more likely they will become integrated with the academic and/or social culture of the institution. However, it is prudent for universities to ensure that ones they admit students who are deaf, they should make sure the students are involved in the academic and social culture.

Results of the study revealed that there were two main types of support available to students who are deaf. These were sign language interpreting and note-taking services. The analysis also revealed that other forms of support services such as projections, tutoring, counselling, resource center, health care and photocopies were also provided to support the learning needs of the students. These support services were provided to ensure that the students with deafness are well integrated in a university where most of the students are hearing.

Again, it was revealed that although the sign language and note taking services were provided to the students with deafness, yet they were not provided on regular bases. The irregularity of the services provided could possibly lead to the students not getting the required information needed to sustain their stay at the university. Again, the student who are deaf stressed how beneficial the support services had been to them. The majority indicated that although they had challenges in accessing the support, yet the benefits they derived from them were enormous. Findings of this study were supported by Marschark et al. (2006), Mitchell and Karchmer, (2006), Marschark et al. (2003), and Traxler (2000) who argued that the goal for educating students who are deaf in inclusive settings is to ensure that the students with deafness can learn in the same environment like their hearing peers. Marschark et al. further explained that the basis of including deaf students is on the assumption that information communicated by hearing educators for hearing learners is accessible to students who are deaf.

The researchers added that students with deafness who enroll in general educational settings require classroom support services if they are to realize their academic potential. Findings of the study is also supported by Roe (2008) who indicated that the support services that is required for students who are deaf to survive in a university must include Sign Language interpreting services, note taking services, tutoring services, school library services, computer laboratory services, lecture halls services, school playing ground, accessibility to internet facilities and the canteen. O'Brien (1998) contended that students who are deaf must have complete access to all school facilities to enhance their academic and social learning outcomes.

Therefore, it was imperative that the students gain access to school support services for improved participation in learning and consequently positive academic experiences.

Findings of the present study are in congruence with Hyde et al. (2008). The researchers found that when students with deafness get all the required support services needed in a university, then the students are likely to compete fairly with other students and graduate successfully. Marschark et al. (2005) found the students who are deaf did not acquire as much information from lectures as their hearing peers even with experienced interpreters who were familiar with the students. In addition, Gesueli (2006) discussed the importance of deaf children having contact with Sign Language and with deaf teachers. Gesueli indicated that the contact makes it possible for the deaf students to establish a relationship of belonging to the deaf community, without which the students will feel isolated. Martins (2006) argued that Sign Language interpreters should be capable of perceiving the difficulties of students who are deaf and of discovering ways and methods for mitigating them.

Findings of this study were supported by Tinto's (1975) model of students retention and departure which indicated that an individual student's decision to persist or depart from an institution is dependent on their pre-university characteristics, their level of commitment and intention towards their academic goal, and their ability to integrate academically and socially, both formally and informally, into the institutional culture. For students with deafness to integrate academically, they require support services that meet their learning needs.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the summary, conclusions and recommendations for future research.

6.1 Summary

The purpose of this study was to explore experiences of students who are deaf at the University of Education, Winneba. Fourteen students who are deaf were purposively selected from a population of 36 students. Data were gathered through a semi-structured interview guide. Data were coded and analysed using thematic approach.

Responses from participants suggested that whereas some of them saw social gatherings as avenues to mingle with their hearing colleagues and learn their ways of doing things, others did not see such meetings as such. However, most of the students with deafness expressed their disquiet about being around hearing students. They indicated that the hearing students made them feel isolated because of communication gap.

Results of the study revealed that in the absence of their Sign Language interpreters, some of the students employed the services of students who could sign. Other students did not see the need to employ the services of their hearing colleagues in the absence of an interpreter. Participants further indicated that they were often

given prior notice before their assessment dates and were assessed on subject contents covered. Findings of the study also revealed that some of the students preferred one of the two interpreting types (simultaneous and consecutive interpreting).

Respondents stressed how beneficial the services such as Sign Language interpreting and note-taking have been to them. Majority indicated that, although they had challenges in accessing the services, yet the benefits they derived from them were enormous. Participants indicated that Sign Language interpreters were sometimes absent. They stated that they were not informed about relevant issues such a change in venue and time of some lectures when their interpreters are absent. Results of the study revealed that when post-lingual students attend lectures, they are compelled by lecturers to use their voices. Other hearing students and lecturers were also found to laugh at individuals who were deaf.

Findings of the study revealed that gaining accommodations at their halls of residence was easy since preference was given to students with special needs. Also, reveal that majority of participants enjoyed being in the same room with hearing student since their colleagues hearing students did not pose any challenge to them in their rooms. However, some of the participants did not like the idea of being in the same room with their colleague hearing students since they felt that the hearing students talked about them and did not see them as coequals.

6.2 Conclusion

The present findings concluded that although there support services provided for students who are deaf at University of Education, Winneba, yet it was necessary to ensure that more interpreters and note takers were available to provide regular services to the students. It was also necessary for the university authorities to ensure that some of challenges encountered by the students who are deaf are addressed to ensure successful inclusion. Socially and academically, it was necessary for the university to provide services which do not promote discrimination of students who are deaf. Future research need to be conducted in order to verify the present findings by taking into considerations the recommendations which have been made.

6.3 Recommendations

Based on the results from the study, it is therefore recommended that: the university should employ the same or, at least, enough persons who can assist in sign language interpreting and note-taking as the number of students in the university, who are deaf, increases. This will help to reduce some of the challenges students face at lecture halls.

Furthermore, the university should find out from students who are deaf those hearing students they would like to be paired with at their halls of residences.

Also, the university should sensitize lecturers, staffs and students on regular basis to inform them about persons with disabilities, especially, those with deafness.

Again, it is recommended that, at social gatherings, the university should make available sign language interpreters so that students who are deaf can benefit from such meetings.

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APPENDICES

APPENDIX A

SEMI-STRUCTURED INTERVIEW GUIDE FOR STUDENTS WHO ARE DEAF AT THE UNIVERSITY OF EDUCATION, WINNEBA ON THEIR EXPERINCES AS STUDENTS IN THE UNIVERSITY

Time: **Venue:** **Date:** **Duration:**

Biodata of Students

This interview was meant to collect information from deaf students on their experiences at the University of Education, Winneba. The items were developed on the themes in the research questions.

Type of hearing loss:

Age:

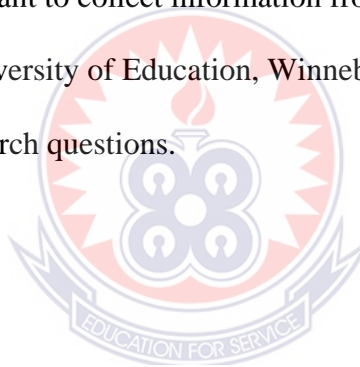
Gender:

Onset of Disability:

Hall of Residence:

Department:

Level:



Research Question 1: What social experiences do deaf students go through at the university level?

Question: Can you tell me some of your social experiences at the university?

Prompts:

What are your views about your Hall of residence?

How easy is it for you to get accommodation on campus?

How do you feel about being in the same room with hearing colleagues?

How do you feel when you attend students' gathering in the university?
Are Sign Language interpreters available to you at such meetings?
Can you tell me about your views concerning you learning with hearing peers?
What are your feelings about interacting with your hearing colleagues?
Have you ever felt isolated among hearing students? Explain why or why not.
When interacting with your deaf colleagues, do you face any challenges in the signs they use? Why?
What experience do you have with the university staff?
Can you comment on the some of challenges you encounter in the university?
Do you encounter some challenges at the lecture hall?
Are you often given information on time whenever lecture times are rescheduled?
How about changes in venue for lectures?
Do you feel included as a student in the lecture?
How often do you receive information from your peers?
What can you say about the attitude of your colleagues towards you?
How do lecturers behave towards you?
Are some of the lecturers able to communicate with you in Sign Language?
How often do you receive information from your peers?
What can you say about the attitude of your colleagues towards you?
How do lecturers behave towards you?

Research Question 2: What academic experiences do deaf students go through at the tertiary level?

Question: Can you tell me about your academic experiences in UEW?

Prompts:

In the absence of a Sign Language interpreter, how do you access information at lecture?

Do lecturers give you notes to photocopy?

Are you given prior notices before quizzes or exams?

Is your assessment different to that of hearing students? Kindly explain.

If you had a choice, how would you like to be assessed?

Are you assessed on what you are taught?

Do lecturers communicate in a language that you understand?

How do you prefer your Sign Language interpreters to interpret to you? Consecutive, Simultaneous, or both consecution and simultaneous?

Are you able to compete fairly with your hearing colleagues academically? Give reason/s

Do you have interpreters, note takers, tutoring services etc

Do you receive information on time?

In terms of assessment, do you have some challenges?

Are you given additional time to complete your quizzes and exams?

How effective are the services provided to you?

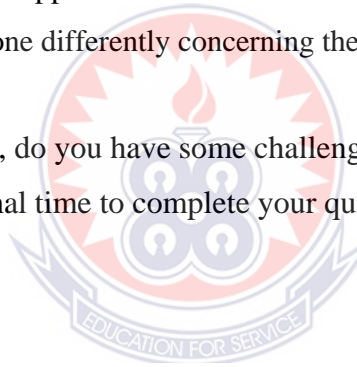
Are the people who offer the services punctual?

How beneficial are the support services rendered to you?

What would you like done differently concerning the support service you currently receive?

In terms of assessment, do you have some challenges?

Are you given additional time to complete your quizzes and exams?





APPENDIX B

DEPARTMENT OF SPECIAL EDUCATION

UNIVERSITY OF EDUCATION, WINNEBA (UEW)

April 9, 2015

Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you Joyce Adu – an M. Phil student at the Department of Special Education of the University of Education, Winneba. She is currently working on his thesis: **Experiences of Students who are Deaf at the University of Education, Winneba.**

She would need your assistance to collect data from your school. I would therefore, be grateful if you could provide him with the necessary assistance.

Thank you for time and cooperation.

Yours faithfully,


YAW NYANTEH (PHD)
AG. HEAD OF DEPARTMENT
ynoffei@uew.edu.gh
0233246607972

**HEAD OF SPECIAL EDUCATION
DEPARTMENT OF SPECIAL EDUCATION
UNIVERSITY OF EDUCATION
WINNEBA**

APPENDIX C

AUDIOGRAMS OF RESPONDENTS

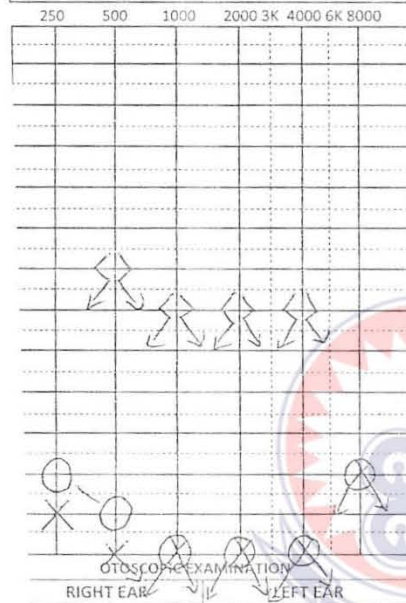


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

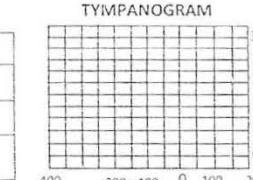
DATE: <u>27-04-16</u> ID NO:		SEX: <u>M</u>	AGE: <u>17y</u>	DOB:
NAME:		ADDRESS: <u>Graphic Design, L 200</u>		TEL:
NATURE OF WORK: <u>Student</u>		REFERRED BY:		
AUDIOMETER: <u>AN 27</u>		EXAMINER: <u>Kyari Kwabena Nanteh</u>		
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	{	}
SOUND FIELD	S	

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 + 100 daPa)		



OAE	PASS	REFER
RIGHT		
LEFT		

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

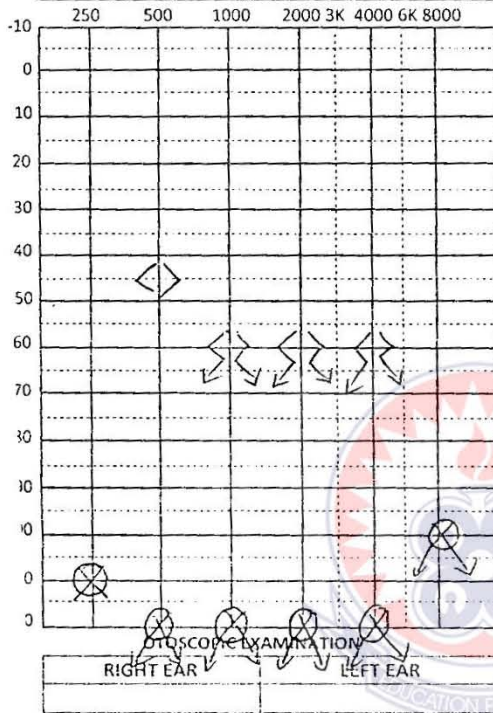


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 27-04-16	ID NO:
NAME:	SEX: M AGE: 26yr DOB:
ADDRESS: Special Education, UoE	TEL:
NATURE OF WORK: Student	REFERRED BY:
AUDIOMETER: AD 27	EXAMINER:
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AUDIOGRAM KEY

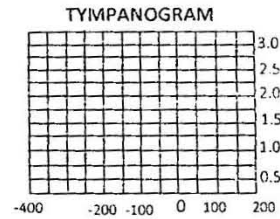
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A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUND FIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

LittleEARS[®] SCORE

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

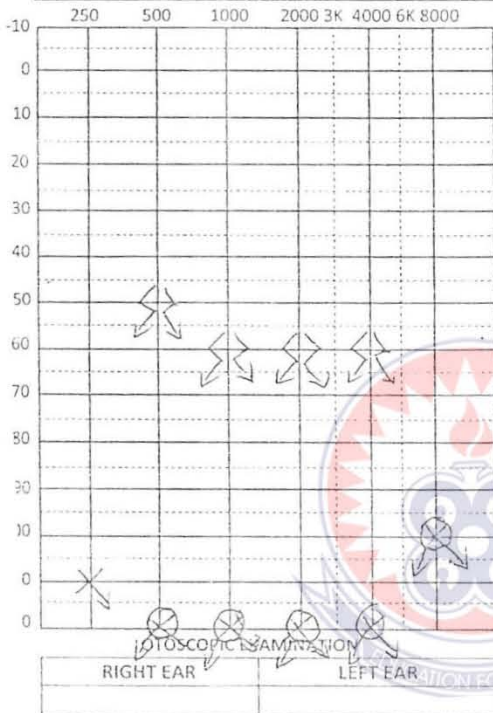


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AUDIOLOGICAL EVALUATION

DATE: 27-04-16	ID NO:
NAME:	SEX: M AGE: 24yrs DOB:
ADDRESS: Special Education L 200	TEL:
NATURE OF WORK: Student	REFERRED BY:
AUDIOMETER: AD 27	EXAMINER:
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR	



AUDIOGRAM KEY

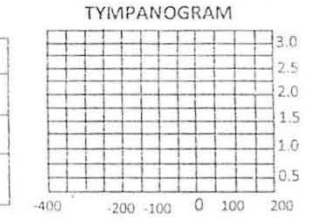
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A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

LitHEARS[®] SCORE

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

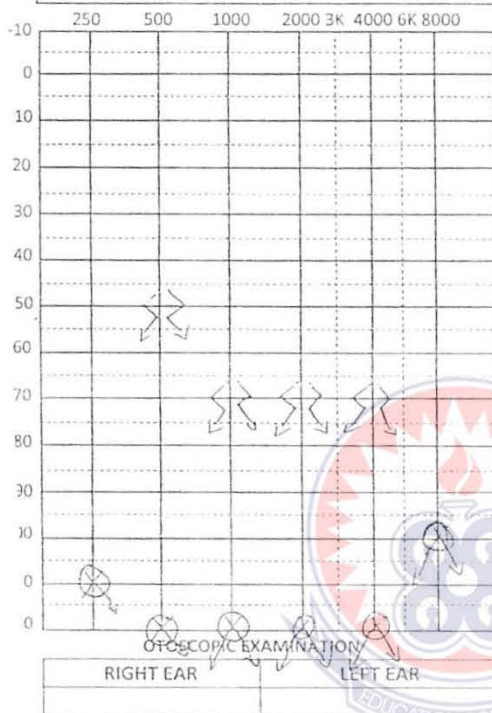


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: <u>26-04-16</u>	ID NO:
NAME:	SEX: <u>F</u> AGE: <u>25 yrs</u> DOB:
ADDRESS: <u>Special education L 300</u>	TEL:
NATURE OF WORK: <u>student</u>	REFERRED BY:
AUDIOMETER: <u>AD 27</u>	EXAMINER:
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR	



AUDIOGRAM KEY

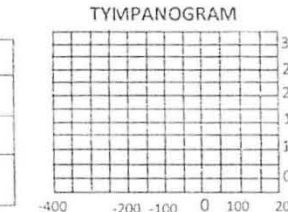
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A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS		500	1K	2K	4K
IPSI	RT				
	LT				
CONTRA	RT				
	LT				

OTOSCOPIC EXAMINATION

	RIGHT EAR	LEFT EAR

LittleEARS[®] SCORE

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST



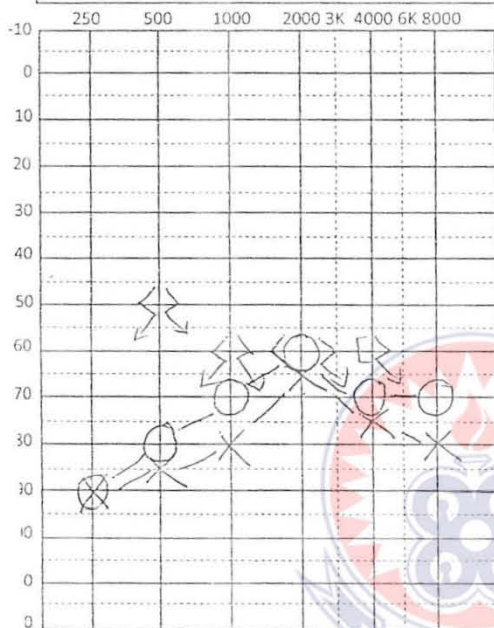
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e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 27-04-16	ID NO:	SEX: F	AGE: 25yrs	DOB:
NAME:		ADDRESS: Special Education L 200		TEL:
NATURE OF WORK: student		REFERRED BY:		
AUDIOMETER: A1 27		EXAMINER:		
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



AUDIOGRAM KEY

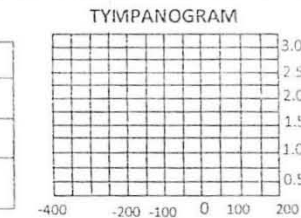
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A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150+100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

OTOSCOPIC EXAMINATION

RIGHT EAR	LEFT EAR

LittleEARS[®] SCORE

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

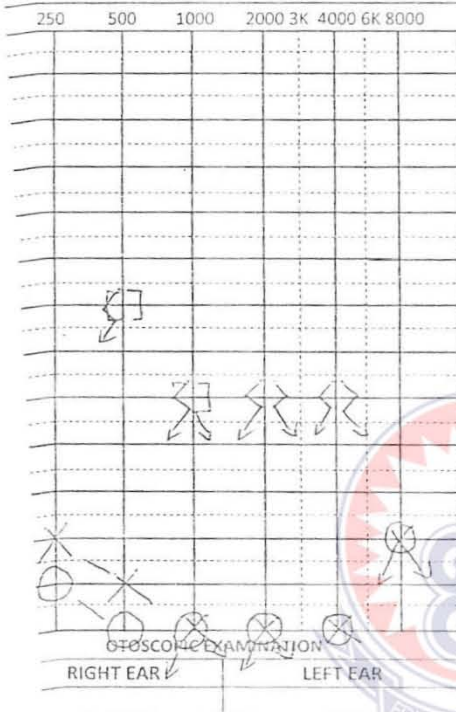


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AUDIOLOGICAL EVALUATION

DATE: 27-04-16 ID NO: _____
 NAME: _____ SEX: F AGE: 06 yrs DOB: _____
 ADDRESS: Special education, L 400 TEL: _____
 NATURE OF WORK: Student REFERRED BY: _____
 AUDIOMETER: Aid 27 EXAMINER: _____
 TEST RELIABILITY: GOOD FAIR POOR



AUDIOGRAM KEY

	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

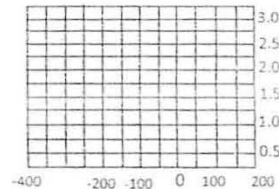
SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 + 100 daPa)		

TYMPANOGRAM



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS		500	1K	2K	4K
IPSI	RT				
	LT				
CONTRA	RT				
	LT				

Lit/IEARS[®] SCORE

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

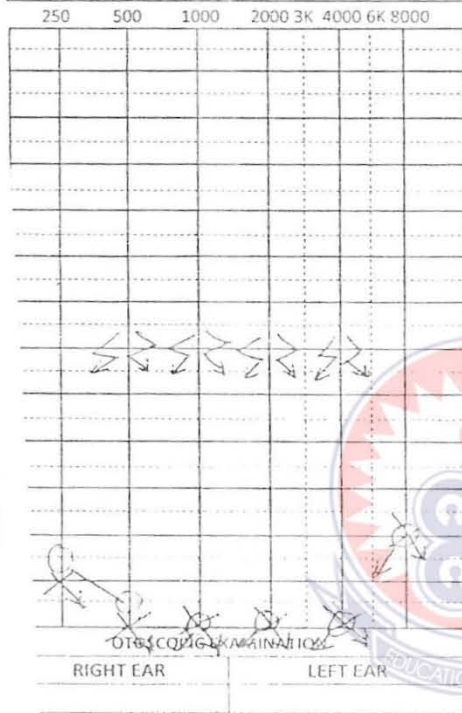


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AUDIOLOGICAL EVALUATION

DATE: 17-04-2016	ID NO:	SEX: F	AGE: 25yrs	DOB:
NAME:			TEL:	
ADDRESS: Special Education, L 400			TEL:	
NATURE OF WORK: Assistant			REFERRED BY:	
AUDIOMETER:			EXAMINER:	
TEST RELIABILITY: <input type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



AUDIOGRAM KEY

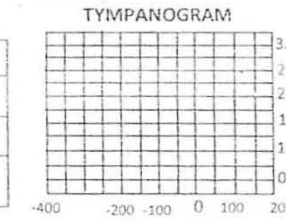
	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

LittleEARS[®] SCORE

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

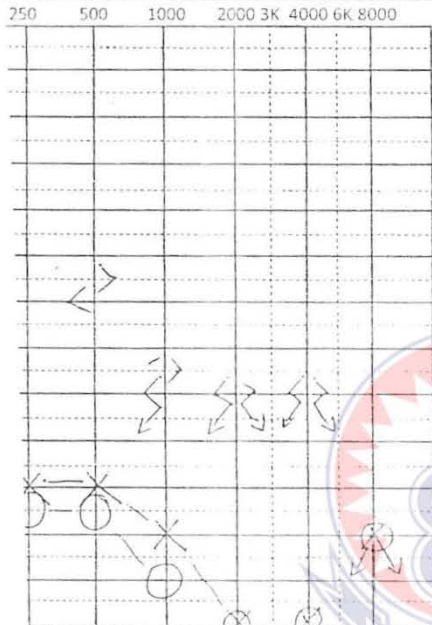


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DL: 26-04-16 ID NO: _____
 ME: _____ SEX: F AGE: 26yrs DOB: _____
 ADDRESS: Special Education, L 300 TEL: _____
 NATURE OF WORK: Student REFERRED BY: _____
 DIOMETER: AD 27 EXAMINER: _____
 RELIABILITY: GOOD FAIR POOR



AUDIOGRAM KEY

	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

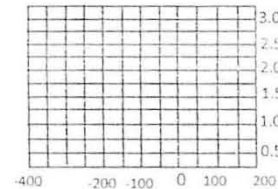
SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (150 +100 daPa)		

TYMPANOGRAM



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

OTOSCOPIC EXAMINATION
 RIGHT EAR LEFT EAR

RETENTION OF RESULTS / RECOMMENDATION(S):

 AUDIOLOGIST

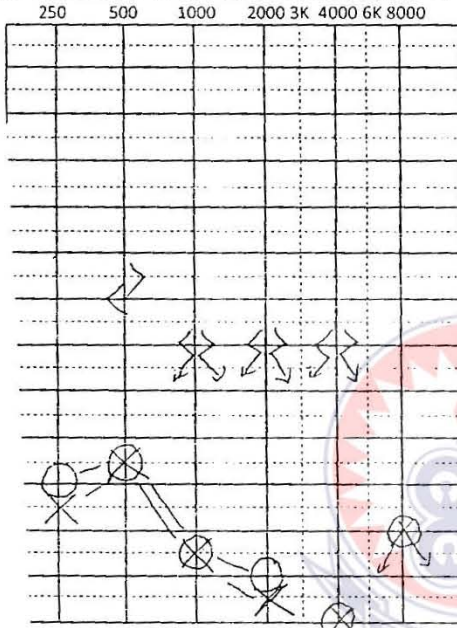


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 27-04-16	ID NO:	SEX: F	AGE: 25 yrs	DOB:
NAME:		ADDRESS: Special Education L 200		
NATURE OF WORK: student		REFERRED BY:		
AUDIOMETER: AD 27		EXAMINER:		
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



AUDIOGRAM KEY

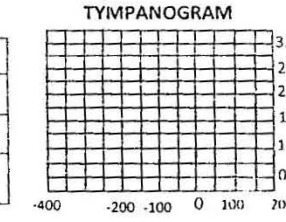
	RT	LT
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A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

OTOSCOPIC EXAMINATION

RIGHT EAR	LEFT EAR
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LittlEARS[®] SCORE

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

 AUDIOLOGIST



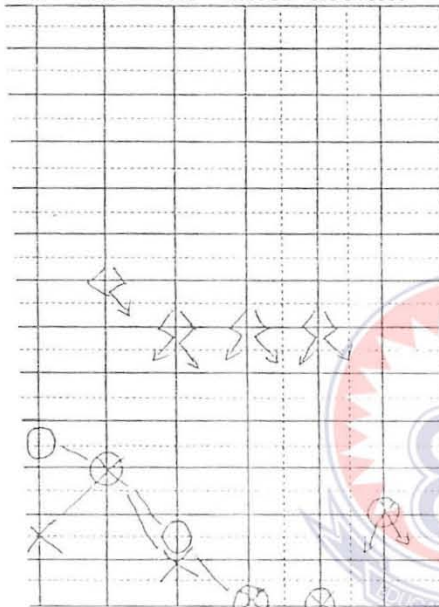
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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 27-04-16 ID NO: _____
 NAME: _____ SEX: M AGE: 24 DOB: _____
 ADDRESS: Special Education, L 300 TEL: 0548046226
 NATURE OF WORK: Student REFERRED BY: _____
 UDIOMETER: AD 27 EXAMINER: _____
 EST RELIABILITY: GOOD FAIR POOR

250 500 1000 2000 3K 4000 6K 8000



AUDIOGRAM KEY

	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

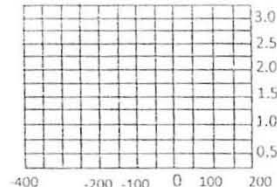
SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 dPa)		

TYMPANOGRAM



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS		500	1K	2K	4K
IPSI	RT				
	LT				
CONTRA	RT				
	LT				

OTOSCOPIC EXAMINATION

RIGHT EAR	LEFT EAR

LINEARS SCORE

PRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST

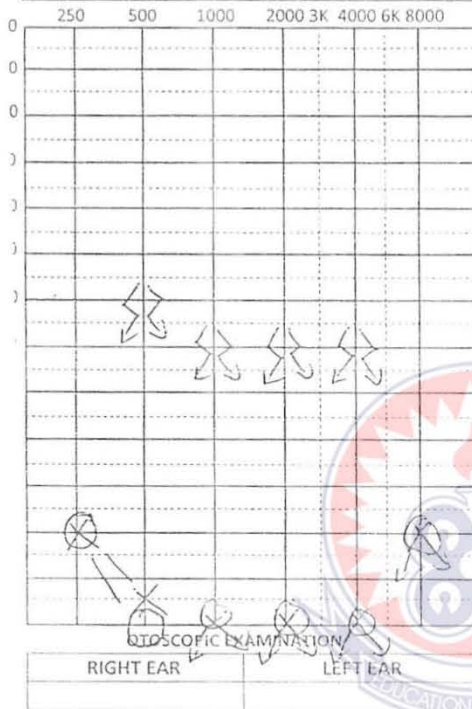


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 26-04-16	ID NO:			
NAME:	SEX: M	AGE: 26	DOB:	
ADDRESS: ICT, L 300	TEL:			
NATURE OF WORK: Student	REFERRED BY:			
AUDIOMETER: AD 27	EXAMINER: Kyei Beating Daniel			
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



AUDIOGRAM KEY

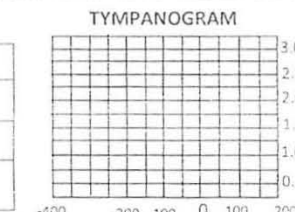
	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

LittEARS[®] SCORE

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

.....
 AUDIOLOGIST



CENTER FOR HEARING AND SPEECH SERVICES - CHSS

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 e-mail: chss@u-w.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 26/04/16	ID NO:			
NAME:	SEX: M	AGE: 28yrs	DOB:	
ADDRESS: ICT L400	TEL:			
NATURE OF WORK: Student	REFERRED BY:			
AUDIOMETER: AD 27	EXAMINER: Kpen Kwatey Daniel			
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



AUDIOGRAM KEY

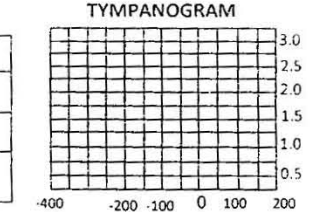
	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

Litt/EARs[®] SCORE

ACOUSTIC REFLEX THRESHOLD

STIMULUS		500	1K	2K	4K
IPSI	RT				
	LT				
CONTRA	RT				
	LT				

OTOSCOPIC EXAMINATION

RIGHT EAR	LEFT EAR

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

.....
 AUDIOLOGIST

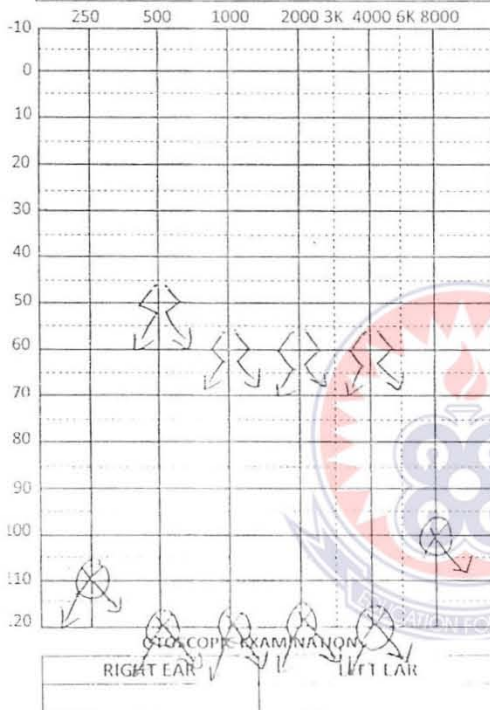


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 e-mail: chss@uew.edu.gh



AUDIOLOGICAL EVALUATION

DATE: 27-04-16	ID NO: -			
NAME:	SEX: Male	AGE: 24y5	DOB:	
ADDRESS: Graphic Design L 400	TEL:			
NATURE OF WORK: Student	REFERRED BY:			
AUDIOMETER: AD 27	EXAMINER: Kyari Boateng Aboet.			
TEST RELIABILITY: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR				



AUDIOGRAM KEY

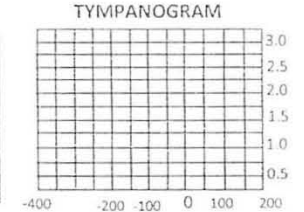
	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0.2-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 + 100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

LittleEARS® SCORE

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

.....
 AUDIOLOGIST



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 e-mail: chss@uew.edu.gh



AUDILOGICAL EVALUATION

DATE: 26-07-16 ID NO: _____

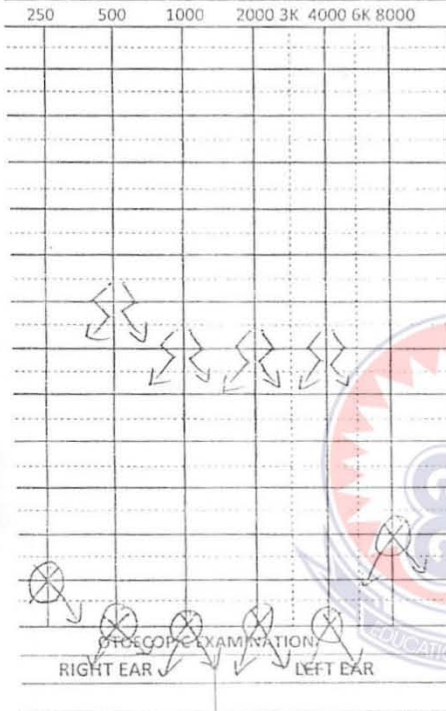
NAME: _____ SEX: M AGE: 22 DOB: _____

ADDRESS: Graphic Design, L 200 TEL: _____

NATURE OF WORK: Student REFERRED BY: _____

AUDIGMETER: AD 27 EXAMINER: Kyari Kwamey Kwamey

TEST RELIABILITY: GOOD FAIR POOR



AUDIOGRAM KEY

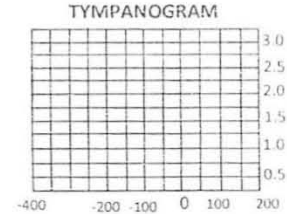
	RT	LT
A/C UNMASKED	O	X
A/C MASKED	Δ	□
B/C UNMASKED	<	>
B/C MASKED	[]
SOUNDFIELD	S	

SPEECH AUDIOMETRY

	RIGHT	LEFT
SAL		
SRT / AAST		
SRS		
UCL/MCL		

TYMPANOMETRY

NORMAL VALUES	RT	LT
ECV (0-2.0 ml)		
Peak Compliance (0.2-2.0 ml)		
Peak Pressure (-150 +100 daPa)		



OTOACOUSTIC EMISSIONS

OAE	PASS	REFER
RIGHT		
LEFT		

HEARING SCORE

ACOUSTIC REFLEX THRESHOLD

STIMULUS	500	1K	2K	4K
IPSI	RT			
	LT			
CONTRA	RT			
	LT			

INTERPRETATION OF RESULTS / RECOMMENDATION(S):

AUDIOLOGIST