



Challenges Facing Students with Hearing Impairment in Inclusive Classroom in Public Secondary School in Mabira Secondary School in Kyerwa District, Tanzania

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

This study explored the challenges facing students with hearing impairment in the inclusive classroom in public secondary school in Kyerwa District. The study was guided by the theory of mind by David Premack in 1978. Specifically, the study intended to identify the academic challenges facing students with hearing impairment in inclusive classroom. The study employed a qualitative research approach. The study used a case study research design. The study used twenty-nine respondents. Data were collected through interview guide, focused group discussion, documentary review and observation. The study considered all aspects of trustworthiness in

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qualitative research. The study employed non probability sampling techniques which were purposive sampling and snowball sampling. Data were analysed and presented through content analysis. The findings revealed that students with hearing impairment face academic challenges including: lack of sign language interpreters, lack of hearing devices and delay in achieving and capturing the concepts taught in the class. The study recommended that, the Ministry of Education, Science and Technology should provide seminars and training to the teachers who are teaching students with hearing impairment so as they can get knowledge about inclusive education.

Keywords: Hearing impairment; inclusive education; challenges; public secondary school.

1. INTRODUCTION

Hearing impairment has been a major disability challenges globally and is a threat to quality of education in developing countries [1]. Hearing impairment is the inability of an individual to hear sounds adequately. This may be due to damage or disease to any part of the ear. This idea is supported by Nwadinobi [2] who stated that, ear is the part of the human body that is used for hearing. Anybody who cannot hear around him or her, should be seen as having hearing impairment. Hearing is very important for the development of normal speech, language and learning. Felman [3] commented that hearing impairment, or deafness as process whereby an individual cannot hear sound either total or partial. However, Anastasiadou and Alkhalili [4] pointed that hearing impairment is a medical condition and progressive which affects a person in severity in different age. This condition needs equipment's so as to improve auditory reception and for children pediatricians are needed to care and ensure their normal hearing and language development. Hearing impairment can be sudden or gradual and it can affect one or both ears and can be caused by different factors such as infection in the ear, over aging, low oxygen level, very premature birth, drugs, malformation of the ear canal, diseases, excessive ear wax in the ear canal and in the external ear drum, excessive noises, accidents, heredity and sometime a person can decide to have psychological deafness [5].

Furthermore, Okeke (2001) as cited in Nwadinobi [2] identifies the different causes of hearing loss such as hardened wax or external object blocking outer auditory canal, inflammation in the middle ear (otitis media), infection in the middle ear such as heredity, presence of carbon monoxide as a poison, mumps, syphilis, influenza, quinine taken by expectant mothers, birth injuries such as prematurity, prolonged labor, difficult birth, anoxia (lack of oxygen), accident in the form of heard injury. Some of the

causes above occur before birth like the maternal rubella that is the German measles that attacks pregnant mothers. Others occur during birth such as pre-maturity, prolonged labor, difficult birth, and anoxia. Most causes of hearing impairment occur post-natal like the hardening of wax in the canal leading to the ear drum which blocks sound waves from entering the middle ear, and through to the inner. Ertzgard, Kristin, Sofie and Sinaberg [6] stated that hearing impairment is becoming a public health concern and a widespread problem, also the World Health Organization estimates that globally there are about 466 million people with hearing impairment, of which 34 million are children. There is a risk to students with hearing impairment when are excluded from inclusive classroom during teaching and learning process, however this seem to be a challenge issue to these students [7]. Inclusive education is education that includes everyone, with non-disabled and disabled people (including those with special educational needs) learning together in mainstream schools, colleges and universities.

Bhat [8] asserts that inclusive education is a process of strengthening the capacity of the education system to reach out all learners. It involves restructuring the culture, policies and practices in a school. It is one of the most effective ways by which can promote an inclusive society. Inclusive education is a strategy of making education universalized irrespective of any disability within the learner and to maintain equity in the society. In Tanzania special education was introduced in 1950 by the church of missionary society but still this policy embedded with a lot of problems in the development of special needs and inclusive education [9]. In 1994 the Tanzanian Government ratified the Salamanca Statement which emphasizes the need to provide children with special needs as a basic education, and sees this as an indispensable step to reach the goals set at the first Education for All (EFA) Conference in Jomtien in 1990. The framework

for action connected to the Salamanca statement which suggested an inclusive education as a way which can assist to reach these goals [10]. According to inclusive education policy, the government as an exponent of Education For All (EFA) whereby education should ensure equity and access by supporting practising specialization approach in regular schools that offer education to children with disabilities through integration approach and conducting several policy and curriculum reform to take in regard inclusive education such as enough knowledge and skills to teachers, modified teaching and learning materials so as to be relevant to learners needs. Also, the schools should accommodate all children regardless of their physical, intellectual, social or other conditions within their environment. Inclusive education have particular focus on those groups who have been traditionally excluded from educational opportunities, these were children with disabilities and special educational needs. Also the inclusive education policy is important for these group in which the curriculum entails the three major components which are the content, methodology and resources [11]. Inclusive education policy was established in Tanzania in order to deal with barriers to learning in the education system. However, implementation of the policy is still having some challenges including lack of teachers with skills and knowledge in understanding the curriculum so as to address learning to the learner's needs [12].

Globally, students with hearing impairment are experiencing stigmatization, discrimination and violence which hinder them from fully realizing their rights and participating in everyday life. Media awareness, religious teaching, government and the efforts of the civil society organizations have contributed to a positive change in perception such as provision of sign language, teaching and learning resources to minimize stigmatization and discrimination in the learning process. Students with hearing impairment are less attended to school and are more illiterate than person without hearing impairment. On the other hand, those who attend schools are not able to know what is going on during teaching and learning process [13]. The Ministry of Education in Thailand assumes the role of ensuring universal access to education for all children, including those with disabilities, by overseeing the provision of educational services throughout the nation. These services encompass special education centers, special

schools, as well as regular integrated primary and secondary schools. Additionally, Special Education Centers (SEC) in Thailand is in charge in all special education services that include identification of children with impairment in the community, collaboration with parents, child assessment, school placement, early intervention at home or at the SEC, and finding the appropriate services for students with disabilities and who are out-of-school [14] as cited in Karnas [15]. In India students with hearing impairment in the inclusive classroom face challenges of lacking assistive devices which may assist the impaired students to take full advantage from the classes and use of power point presentations in the class.

Nowadays teachers use technology so as to make the process of teaching and learning more effective but there are different types of students in the single class and teachers are ignoring the requirements of impaired students [8]. In South Africa students with HI are being granted access to high institutions due to inclusive education policies, that participation in high institutions is low and they use spoken language for moderate and profound students in one class (Hindhede, 2011) as cited in (Bell, 2016). Similarly to this Kigotho [16] reveals that significant barriers for hearing impaired students exist and they included teaching as a mode of instruction used by teachers, the framing of examination questions, level of education of the sign language interpreter, knowledge of content taught and a good grasp of signs by the interpreter ; inadequate classroom space and furniture, absence of overhead projectors during teaching, inadequate signage especially in workshops, poor lighting and noisy classroom environment and challenges in socially integrating with the hearing leading to isolation. In Tanzania Kisanga [17] commented that students with hard of hearing in secondary schools education are facing communication barriers in their learning due to resource-based and pedagogical barriers. The 1982 Disabled Persons (Employment) Act and the People with Disabilities Act established a quota system and prohibit discrimination in employment towards impaired people. Disabled children have been included in education policies from Education Act of 1969 and this Act also provide non-discrimination and inclusive settings for children with disabilities [18]. Also, Children with HI and other children with disabilities are getting education in segregated settings such as special schools and in integrated settings [19,20] in their

study done in Bukoba show how students with disabilities especially those with visual impairment are facing challenges including inadequate teaching morale, inadequate training among teachers and poor cooperation among teachers in assisting those students in the class. Revelian and Tibategeza [21] also lamented that teachers in inclusive public primary schools in Karagwe have low awareness on understanding of inclusive education, the question is how these teachers can implement this policy without knowing its meaning, and how they can assist students with disabilities while they know nothing about its direction. Mabira Secondary School is the only school in Kyerwa District in the Kagera region among thirty-four schools which provide education in inclusive education.

The classes involve normal students, students with hearing impairment, students with albinism, and cripple students learning together in one class from form one to form six. Students with HI are coming from different regions. These students are learning together with hearing students. Therefore, it is not known whether these students are acquiring the intended competencies to the maximum since the learning environment is not friendly for them. Although some researchers have done research on challenges facing SHI, no research has been done on challenges facing students with hearing impairment (SHI) in inclusive classrooms in public secondary schools in Kyerwa District. This is because few of them have been done in Tanzania specifically in Dar es Salaam, Dodoma, Karagwe, and Bukoba none of which are concerned with challenges facing students with hearing impairment (SHI) in the inclusive classroom in public secondary schools. That is why a researcher intended to establish a research on challenges facing students with HI in the inclusive classroom in public secondary schools, particularly, Mabira Secondary School in Kyerwa District.

1.1 Statement of the Problem

Education to students with hearing impairment in the inclusive education classrooms is very challenging, though this policy is crucial in providing a better education for every child and is instrumental in avoiding discriminatory attitudes. Students with hearing impairment are learning in the inclusive system in which they can be able to contribute to the group and to their society without fear of being isolated by bringing their ideas during the instruction process, however,

there were still many problems with the way they involve in teaching and learning, especially in the methods used in the teaching process. Education in most schools in the Kagera region is given in integration where both hearing students and students with hearing impairment learn in a single classroom. This helps these students to cooperate and interact with each other. Success in this requires students and teachers to understand how to use sign language, gestures, the availability of hearing equipment and hearing assessment. Also, this is supported by Tanzania inclusive education policy as an exponent of Education for All (EFA) where by education should ensure equity and access by supporting and practising a specialization approach in regular schools that offer education to children with disabilities through an integration approach and conducting several policies and curriculum reforms to take in regard with inclusive education such as enough knowledge and skills to teachers [11].

Various studies have shown that there are complaints of students with hearing impairment (SHI) when mixed with normal students in the same classroom. Gudyanga [7] commented that if measures are not taken to ensure that students with HI are fully included in inclusive education, they will be excluded from teaching and learning process. These measures include the use of sign language in teaching, the use of total communication, availability of assistive devices and availability of knowledgeable teachers. Also, Koboli (2021) reveal that there are complaints that students with hearing impairments (SHIs) do not participate well in the study during teaching and learning process because they are mixed with normal students, also, teachers have no knowledge of how to use sign language, total communication, how to assist those students and teachers have negative attitudes toward those students during teaching and learning process. All of these complaints make students with hearing impairment to become isolated during teaching and learning process and cause them to perform poorly in academics. With the above challenges, still education in Kyerwa is given in integration where both hearing students and students with hearing impairment learn in a single classroom. Even though inclusive system has its importance, still students with hearing impairment face a lot of challenges in its implementation. The question is what is happening at Mabira Secondary School in Kyerwa District for Students with hearing impairment where education is given in inclusive

system. The question is also how these students can learn with normal students in a single class, how competent are teachers in using sign language, total communication and how do they use auditory devices during teaching and learning process? All these questions compelled a significant need to conduct a research on challenges facing students with hearing impairment in the inclusive classroom in public secondary school in Mabira Secondary School in Kyerwa District.

1.2 Research Objectives

1.2.1 General objective

The general objective of this study was to explore the challenges facing students with hearing impairment in the inclusive classroom in public secondary schools.

1.2.2 Specific objectives

To identify the academic challenges facing students with hearing impairment in the inclusive classroom in public secondary school.

1.3 Significance of the Study

The results from this study help policy makers, educational planners, curriculum developers and educational managers at all levels to know the academic challenges facing students with HI in the inclusive classroom in secondary schools.

The findings from this study provides useful information that can be used by policy makers, educational planners, curriculum developers and educational managers at all levels to arrange the policies which are helpful in helping students with hearing impairment in a classroom during the teaching and learning process.

Furthermore, the study provides the ways for the policymakers, educational planners, curriculum developers and educational managers at all levels to set programs in curriculum implementation and Ministry of Education to generate more appropriate education system to improve access on how to involve students during the teaching and learning process in secondary schools.

Fourthly, the findings can be used by stakeholders such as teachers, and parents to know the ways on how to control the academic

challenges in educating students with hearing loss in inclusive classrooms.

The findings shed light to the stakeholders such as parents on the importance of educating students with hearing loss through the use of effective communication in instruction.

Also, the findings are useful by the researchers who need to extend the similar or related studies.

Furthermore, the study helps the researcher to add knowledge to the existing literature about the challenges facing students with hearing impairments and the ways to control the situation in public secondary schools.

1.4 Scope and Delimitation of the Study

The study was mainly focused on the challenges facing students with hearing impairment in the inclusive classroom in public secondary schools in Mabira Secondary School in Kyerwa District because it is where the problem exists. Also, not so much documentary if there is a current research that has been done concerning with challenges facing students with hearing impairment in the inclusive classroom in public secondary schools, particularly, at Mabira Secondary School in Kyerwa District. The participants in the study were students with hearing impairment and those without hearing impairment at the selected school in Kyerwa District. Also, the study used District Secondary Education Officers, District Chief School Quality Assurance Officer, District Special Education Officer, Head of the school and teachers. Data were collected from Mabira Secondary School as the only school in the entire District which provides inclusive education. The study was conducted from July 2022 to September 2023.

2. LITERATURE REVIEW

This study was guided by the Theory of mind (ToM). The theory was developed by David Premack in 1978. ToM is the ability to predict and interpret behaviour by using representations of hidden, causally efficacious mental states. It consists of the ability to use concepts of intentional mental states, such as beliefs, emotions, intentions, goals, and perceptual states, in order to predict and interpret behaviour [22]. According to Premack, ToM is the understanding that people don't share the same thoughts and feelings developed during childhood similar to speech and language

acquisition. ToM had a contribution to the study through acting as the foundation of a student's language acquisition and the development of appropriate social behaviour and skills for students with HI. Such skills are important because they facilitate communication and social interaction with peers and support the development of language skills in learning and the teaching process. ToM is crucial for healthy social relationships between teachers and students with hearing loss. ToM is also important for academic success at school and is critical for literacy and academic achievements to the students with hearing loss because teachers may know how to assist their students to interact and use sign language and total communication in teaching and learning process. The theory of the mind also act as the insight to the study because students with hearing loss are facing a lot of challenges in learning through facing the problem of interaction to social situations which make them to misunderstand what is going on during teaching and learning in the classroom to be different from what they are thinking and feeling. Therefore, the theory of mind show that, communication requires students to use their social cognition skills, brain, mind, psychological position, and effective auditory so as to understand what is going on in social interactions such as in class so as to keep them more active in their relations with others during learning and respond appropriate.

Different studies have indicated that students with hearing impairment are facing the academic challenges in inclusive classroom in public secondary school during teaching and learning process. Hameed and Ui-Ain [23] revealed the academic challenges faced by higher education institutions in including students with hearing impairment in classrooms in Pakistan such as limited communication between teachers and students. This makes students with hearing impairment face multiple problems such as diversified learning and social adjustment. In higher education institutions students with hearing impairment in the inclusive classroom face a challenge where teachers are not able to use sign language and total communication; this makes students with hearing impairment misunderstand what is going on during the teaching process. Also, teachers because they don't understand the specific language to use during teaching, fail to interact with students therefore, they decide to use verbal communication in teaching for a few students who are not disabled as the way to give

instructions. Though these challenges are indicated to higher education in Pakistan, it can be a big challenge to the students with hearing impairment in secondary schools whereby most teachers fail to communicate with these students in inclusive classes through sign language. Moreover, Alasim posited that there exist certain obstacles impeding the inclusion of pupils who are deaf or hard of hearing in the mainstream educational setting. Certain educators may lack the requisite understanding of deafness and the distinctive attributes associated with kids who are deaf or hard of hearing. Furthermore, it has been observed that certain educators possess insufficient proficiency in organising classroom exercises that effectively promote the engagement and interaction of students with hearing impairments within the inclusive educational setting. One notable observation is that certain educators exhibit a deficiency in their ability to engage in collaborative efforts, hence impacting their capacity to effectively collaborate with both teachers responsible for children with hearing impairments and interpreters [24]. Alasim's research indicates that a significant number of teachers in the inclusive classroom demonstrate a lack of understanding regarding the implementation of participatory methods to engage all students in classroom activities. Consequently, students with hearing impairments experience feelings of isolation, as they are unable to fully comprehend the content being taught from the beginning to the end of each lesson. Furthermore, due to this lack of awareness, teachers are unable to effectively evaluate the progress of these students.

Similarly, a study conducted in Saud Arabia by Xie, (2014) as cited in Alanazii [25] found that communication styles often influence choosing how to educate deaf students, particularly regarding whether to place them in special or inclusive schools. Furthermore, interaction with deaf students with communication difficulties or hearing impairments can also enhance diversity in inclusive settings. Most previous studies are limited in application because their findings cannot be generalized. The findings assert that teachers, students and parents fail to use total communication as a good style of assisting students with hearing loss, this makes these students have less interaction in the classroom and outside the classroom. According to Asrat [26] there are academic obstacles that students with hearing impairment encounter in Ethiopia. Asrat asserts that several aspects persistently influence and govern the progression of

integration strategies within a nation. The primary obstacle hindering inclusive education is a restricted comprehension of the idea of impairment, coupled with unfavourable attitudes towards individuals with disabilities and a steadfast reluctance to change. This article examines the importance of attitudes, potential influences on teachers' attitudes, the role of teachers and their training in inclusive environments, and the resolution of issues associated with inclusive education. Therefore, the disposition of teachers towards the inclusion of pupils with hearing impairments poses a significant challenge in the successful execution of the programme. The limited awareness of teachers on inclusive education results in their inadvertent misguidance of students with hearing impairments, hence negatively impacting their academic achievement within the classroom setting. Tetty [27] did a study in Ghana and identified various academic problems that impede the academic performance of students with hearing impairments (SHIs). These challenges arise from multiple systems and players, including the SHIs themselves, their parents, and various institutional barriers within the realm of deaf education. Parents are unable to provide enough support for the academic performance of their children with hearing impairment (CHI), including fulfilling their parental responsibilities, establishing appropriate expectations, and providing necessary learning assistance equipment within the home. In addition, Tetty [27] identified additional academic challenges encountered by students with hearing impairment (SHI).

These challenges encompass institutional barriers, such as the efficacy of instructional procedures employed in deaf education, the accessibility of facilities, the availability of teaching and learning materials, as well as the content of the curriculum. These factors collectively contribute to the difficulties experienced by SHI students in achieving academic success. Tetty argues that parents are unable to offer essential services to their children, such as providing hearing aids and books, as well as failing to provide necessary academic support. Consequently, this lack of assistance contributes to poor academic performance and a sense of abandonment among kids, who perceive their parents as incapable of aiding them. Additionally, it is worth noting that numerous educational institutions lack adequate provisions for assisting students with hearing impairments, such as audiometry

devices and teaching aids. This deficiency poses significant challenges for students with hearing impairments in their ability to effectively engage with educational materials and receive a comprehensive education. According to Khomera, Fayiah, and Gwayi [1] students who receive special needs education encounter various academic difficulties.

These challenges include a scarcity of hearing aids, communication barriers within the school community, negative attitudes from the surrounding community, a shortage of qualified teachers, and limited transportation options. This highlights the academic difficulties encountered by students with hearing impairments, primarily due to a lack of access to hearing aids and insufficient awareness among professors regarding their usage and guidance for pupils. Moreover, there exists variation among students in terms of the severity of their hearing impairment. However, teachers tend to approach all students as if they share the same level of hearing difficulty. Teachers utilise verbal communication as a means of instructing students with hearing impairments, as they are unable to effectively employ sign language or multimodal communication methods. The utilisation of these alternative methods may result in a potential misinterpretation of classroom proceedings by students with hearing impairments. In 2014, Mathew did a study in Kenya which revealed that teachers of English language in primary schools encounter significant challenges in communicating while working with students who have hearing impairments. Individuals with hearing impairment (HI) are frequently held responsible for their perceived difficulty in comprehending information presented in school settings that rely on speech and speech reading as modes of communication. The oral approaches exhibit certain limitations in conjunction with alternative modes of communication. For instance, the utilisation of articulation, lip reading, and hearing aids presents comparable challenges, as their effective implementation necessitates the involvement of specialised professionals such as educational audiologists, speech therapists, and auto-laryngologists, rather than relying solely on instructors. The education of learners with hearing impairments presents challenges in terms of complexity and cost, yet it remains imperative to provide them with instruction that enables them to attain their educational objectives. Hence, it is imperative to employ a diverse range of methodologies that encompass

the process of concept generation to facilitate effective communication. Nevertheless, whether employed as the primary or an additional approach to facilitate language acquisition, these techniques encompass the utilisation of symbols derived from concepts or visual representations accompanied by explanatory labels within the context of hearing-impaired education [28]. The study examined the phenomenon of students with hearing impairments experiencing difficulty in comprehending and adhering to instructional guidance within the educational setting. This challenge arises from the teachers' limited ability to communicate effectively using sign language, thereby hindering the students' comprehension of classroom activities.

Consequently, the students exhibit apprehension in seeking clarification from their teachers, leading to suboptimal academic performance and erroneous outcomes. According to Florence [29] it has been observed that the educational requirements of students with hearing impairments cannot be adequately addressed within a regular classroom setting unless there are supplementary teaching and learning resources accessible to both the instructor and the student. The educational resources encompass auditory assistive devices such as radios, as well as audio-visual aids like televisions. In Kenya, workshops and seminars are conducted by the Educational Assessment and Resource Centres (EARC) to provide training for teachers and parents of students with hearing impairments. Educational tools are commonly utilised in conjunction with instructional resources. Educational tools refer to the supportive apparatuses that facilitate the process of learning. Some examples of assistive listening devices are hearing aids, radio microphones, and loop induction systems. The phrase "hearing aid" encompasses a diverse array of devices utilised by those with hearing disabilities. According to Florence [29] the purpose of these hearing aids is to enhance the auditory experiences of individuals who have hearing impairments.

The results of the study indicate a significant lack of knowledge among teachers and parents regarding the appropriate utilisation of educational materials for their children. Additionally, there is a notable deficiency in their understanding of audiology devices and their proper usage. Consequently, students with hearing impairments often encounter challenges as they express dissatisfaction with these

devices, yet receive inadequate assistance. This situation poses considerable obstacles for these students in accessing inclusive education. In a similar vein, Kisanga [17] uncovered that resource obstacles encompassed the insufficiency of resources and physical infrastructures. The challenges encompass a lack of access to hearing aids, substandard hearing aids, limited availability of sign-language interpreters, and generally unsupportive educational settings and surroundings. The pedagogical barriers identified in this study pertain to teaching styles that were deemed inappropriate for meeting the needs of students who are deaf and hard of hearing. These barriers encompass challenges in learning through speech reading, difficulties in lip reading English language speakers, an overemphasis on the lecture method without incorporating multimedia in the teaching and learning process, and a reluctance among lecturers to provide lecture notes. In the inclusive classroom, teaching is being conducted without the presence of an interpreter to facilitate communication during the teaching and learning process. Teachers primarily rely on lectures as a teaching method and often leave the classroom without adequately addressing the needs and challenges faced by students. Furthermore, the instructional methods employed by teachers lack interactivity, which poses difficulties for students with hearing impairments. Consequently, these students often express dissatisfaction and frustration during the teaching and learning process. According to Kisanga (2019), students with hearing impairments primarily rely on visual learning methods. For instance, they benefit from teachers who utilise multimedia projectors or write notes on the board during instruction, as opposed to those who solely rely on verbal communication without any visual aids. Nevertheless, it was observed that several educators delivered their lectures without utilising visual aids such as writing on the board or employing multimedia projectors. This practice hindered the engagement of a significant number of students who had hearing impairments, as they encountered difficulties in comprehending and efficiently following various academic subjects.

The preceding statement suggests that certain students with hearing impairments encounter a greater number of academic difficulties at the tertiary level compared to their experiences in secondary schools, primarily due to differences in teaching approaches (Kisanga, 2019). This

observation highlights the dissatisfaction expressed by university students with the teaching methods employed by their instructors, particularly when compared to the teaching practises observed on the sixth form level. Universities sometimes lack awareness of the intricacies involved in the teaching and learning process, leading to the implementation of supplemental measures that can pose significant risks to their overall effectiveness. Another difficulty in the academic realm is the significant influence of environmental conditions on the field of Industrial Engineering (IE). Adequate support is essential for disabled children to enhance their educational experience within the framework of inclusive education. Infrastructure challenges, such as large class sizes, limited transportation options, buildings that are not wheelchair accessible, inadequate playgrounds, absence of standard toilets within school premises, and considerable distances between students' residences and educational institutions, have been identified as barriers to the inclusion of children with disabilities (CWD) in developing nations (Save the Children, 2002, as cited in Mkongo, [19]). According to the findings of the Save the Children study, it is evident that schools with inclusive classrooms have relatively small class sizes and lack adequate support for children with hearing impairments, such as sound-enhanced classrooms.

Furthermore, the lavatory facilities in these schools are not designed to accommodate the needs of all students but rather cater mostly to those without any specific requirements. Playgrounds, in their current state, do not adequately cater to the needs of kids with hearing impairments, as evidenced by the absence of auditory aids such as bell balls at the school. Moreover, Mkongo asserts that the presence of unfavourable attitudes towards the instruction of students with disabilities is a significant academic obstacle encountered by inclusive education on a global scale. Inclusive education is centred around the implementation of classroom activities that foster the collective learning of all pupils. Existing literature indicates that the cultivation of positive attitudes and the embracement of inclusive educational programmes by normal classroom teachers play a pivotal role in the successful implementation of inclusive education (IE). Educators bear the responsibility of establishing a nurturing and inclusive educational setting for students with disabilities inside the mainstream classroom (Bhatnagar & Das, 2014a; Hettiarachchi & Das,

2014) as referenced in (Mkongo, 2019). The study reveals that teachers face challenges in effectively supporting students with hearing impairments, including difficulties in communicating with them using appropriate language and creating an inclusive educational environment. These challenges can be attributed to negative attitudes held by teachers towards individuals with hearing impairments. According to Maziku [30] students who have hearing impairment have difficulties in their academic pursuit of learning English subject. These problems include the absence of a specialised curriculum tailored to the needs of hearing-impaired students, a scarcity of teachers trained in special education, and a dearth of social workers available to support hearing-impaired students. This study by Maziku examines the academic difficulties faced by students with hearing impairment in learning the English language. It highlights the lack of expertise among teachers in effectively implementing the syllabus for students with special needs. Additionally, the scarcity of support personnel, such as sign language interpreters and medical professionals, further compounds the challenges faced by these students. These pupils require significant intervention; nevertheless, no measures are being taken to support them effectively. They are being taught in isolation, without awareness of the classroom dynamics.

According to Revelian and Tibategeza [21] a significant number of instructors at inclusive public primary schools in Karagwe have limited awareness and grasp of inclusive education. A significant obstacle faced by numerous teachers in Karagwe is the limited awareness and comprehension of inclusive education, particularly when it comes to pupils with disabilities. Teachers often struggle to effectively convey the concept of inclusive education due to a lack of familiarity with this policy. This deficiency arises from a dearth of training or participation in seminars that would provide them with the necessary knowledge and skills to successfully execute inclusive education practises. The implementation of this policy poses challenges for individuals as they perceive it as a novel addition to their professional responsibilities. Furthermore, in their recent study, Kachweka and Rupia [20] have identified a range of obstacles that children with visual impairment in Bukoba encounter. These challenges include insufficient motivation among teachers, inadequate training of educators, and a

lack of effective collaboration among teaching staff. Kachweka highlights the difficulties faced by children with hearing impairments, particularly the lack of motivation among teachers in educating kids with disabilities due to inadequate understanding of how to support students in special education. This issue may arise from either governmental or individual shortcomings on the part of teachers. The government's failure to adequately encourage teachers in special education has resulted in their inability to effectively support kids with disabilities. This can be attributed to the low morale among teachers, which can be addressed by the government through the involvement of leaders at the district, regional, and national levels. Additionally, this observation indicates a lack of training among instructors in the field of special needs education, which hinders their ability to enhance their understanding and skills in supporting kids with disabilities. Nevertheless, it is imperative to emphasise that the aforementioned issues hold significant importance, particularly about the obstacles encountered by kids with visual impairment in public elementary schools.

3. METHODOLOGIES

This study aimed to identify the academic challenges facing students with hearing impairment in inclusive classroom in public secondary school. The study employed a qualitative research approach. The purpose of using this approach was to get the first-hand explanations and experiences of respondents. The study used a case study research design. The researcher used this design so as to understand in depth a phenomenon in real-life situations. Under this case study research design, the researcher used a collective case study research design because the study was about a group of individuals, a community and an organization. Non probability sampling was used in this study which involved two techniques which are purposive sampling and snowball sampling techniques. The study comprised 29 participants, involving one District Education Officer, one District Chief School Quality Assurance Officer, one District Special Need Education Officer, one head of the school, teachers and students. Data were collected through interview guide, focused group discussion, documentary review and observation. The qualitative data were chronologically arranged and analyzed into content analysis so as to obtain the general themes.

4. RESULTS AND DISCUSSION

The study intended to identify the academic challenges facing students with hearing impairment in inclusive classroom in public secondary school. Data were collected through four methods which are interview guide, focus group discussion, observation (personal participant observation), and documentary review. Data from interviews were collected by note taking. The data analysis began by transcribing all data from interview guide, focus group discussion, observation and document review. This process involved transferring of data from the interviews, focus group discussion, observation and document review to the piece of paper in chronological order as per research question. From there, the researcher passed to the data carefully for the purpose of capturing the meaning, the relationship of such words, themes, ensured the objectives, editing materials for analysis, discussing data, analyzing results, and concepts as conveyed by the research participants during the data collection process. Moreover, the researcher presented data with the interpretation of the word by using narratives which described the ideas which obtained. The findings were presented as follows:-

4.1 Academic Challenges Facing Students with Hearing Impairment

In identifying the academic challenges facing students with hearing impairment in the inclusive classroom in public secondary school, the study revealed various academic challenges facing students with hearing impairment in the inclusive classroom in public secondary schools, the DSEO, DSNEO, DCSQAO, Head of the school, teachers and students who were asked about the same. The following are the themes designed from responses obtained from interviews, focus group discussion, participant observation and documentary review. These are: delaying in achieving and capturing the concepts taught during learning and teaching, the absence of freedom of asking questions during teaching and learning when the concept is not well understood, delaying in accomplishing activities given in the class, teaching without pictures, charts and real objects, poor classroom setting during teaching and learning, lack of hearing devices, unable to pay attention during teaching and learning process, shortage of specialist teachers, lack of signs language of some words in science subjects, communication barrier and difficult in taking notes during

teaching and learning process. The findings are presented as follow:

4.2 Delaying in Achieving and Capturing the Concepts Taught During Teaching and Learning Processes

Hearing in teaching and learning process is very important as it makes a student to capture the concepts taught in class. This seems to be different among the students with HI due to their disability; the finding from the participants' shows that during teaching and learning process, students with HI delay in achieving and capturing the concepts especially specific objectives intended by the teachers. Only hearing students are the one who capture faster the concepts being taught because they can hear from the beginning of the lesson and they can know what the teacher wants them to know. This is because during learning process, there is no sign language translator and their teachers are not using sign language in teaching. Also, the teachers who are teaching in the inclusive classroom have no knowledge on how to assist students with hearing impairment; this causes the students with hearing impairment to stay in dilemma because of their disability. As the result, these students find assistance from their fellow students by writing memos as the way to know what was going on during the lesson. The findings above relate with the findings by Alasim [24] who discovered that teaching in inclusive classes needs teachers to have content knowledge, pedagogical knowledge and the combination of the two (pedagogical content knowledge) in order to influence effective learning. The findings interrelated with the theory of mind by Premack (1978) who states that students with hearing impairment are failing to understand on what is going on in the class because they cannot use their mental states to work on activities given in the class and this is caused by their hearing mechanism to be defected. This makes their teachers to fail to know how to assist them in learning process because they don't know how to communicate with them by using the sign language.

4.3 The Absence of Freedom of Asking Questions during Teaching and Learning When the Concept is Not Well Understood

The findings also revealed the absence of freedom for students with HI of asking questions during teaching and learning when the concept is

not well understood. The students with HI are not able to ask questions in the class because they cannot be understood also the teachers have no chance to listen to them because they seem as slow learners. This declines their confidence and develop their fear to interact in class as the result they stay silent. The study also revealed that this situation causes less participation for the students with hearing impairment because of less inclusion during teaching and learning process. Through observation done by the researcher, it was found that students with HI are not able to ask questions during teaching and learning process; this was due to communication barrier by their teachers. The researcher found that teachers were teaching orally without using a sign language and without caring if the students with hearing impairment were following the lesson. Finally, the researcher found that students with HI were doing their activities and only hearing students were able to follow on what a teacher was teaching. The findings agree with the theory of mind used in this study by Premack which stated that students with hearing impairment are not free in social interaction because they cannot use their perceptions in the class; they are not free to interact in group discussion; they are not free to use their beliefs and emotions. This is because of a language problem facing their teachers and their fellow students in the class.

4.4 Delaying in Accomplishing Activities Given in the Class

The study narrated another academic challenge where the students with HI were delay in accomplishing the tasks given in the class such as exercises and questions. This occurs because during teaching and learning process, these students with HI are not able to know what teachers are teaching from the beginning of the lesson; this is because teachers fail to use specific approach during teaching process such as sign language and total communication as the way to make them to know and understand what is going on. At the end, teachers are giving activities to all students without caring and giving more information for these students with hearing impairment. Also, during the lesson, these students with hearing impairment stay in class because they are supported to be in the class, but they cannot follow the whole process of teaching and learning, instructions and also they cannot do anything until they are assisted by their fellow hearing students on what is supposed to be done. Furthermore, through documentary

review, the researcher reviewed students' exercise books and discovered that these students with HI hardly accomplished the activities given in the class due to communication barrier; others used took them up to two days to accomplish the activities beyond the submission dates of activities given in class. The case was different from hearing students who were accomplishing their exercises on a given time

4.5 Teaching without Pictures, Charts and Real Objects

Students with hearing impairment are normally learning better through eyes where by real objects, pictures can be used for more clarification the concepts in the class, the study uncovered that teachers are teaching without real objects and pictures so as to make the students with hearing impairment to understand the concept. Teachers are teaching without teaching aids; they dwell on explanations in teaching, this makes students with hearing impairment to get difficulties in the class because there is no reference to support what teachers are teaching to make them learn by seeing. The findings above concur with the findings by Tetty [27] who discovered that teaching students with hearing impairment needs effective instructional procedures such as availability of facilities, teaching and learning aids so as to make them acquire knowledge in class.

4.6 Poor Classroom Setting During Teaching and Learning

The study displayed another academic challenge of poor classroom setting during teaching and learning. There is no good arrangement of chairs, and tables in the classes which support students with hearing to learn in inclusive class. Students with hearing impairment were sitting at the back of the classroom instead of taking front seat. This makes them to fail to follow their teachers. Also, they can hardly see what is going on in front during learning and teaching process; they cannot see body language and total communication from the teachers. Similarly, teachers hardly understood their feelings through their facial expressions because they were seated afar. The study also revealed that there no enough light in the class to make these students see well the signs and gestures. This makes these students to complain to their teachers during teaching and learning.

4.7 Shortage of Specialist Teachers

The study also revealed the shortage of specialist teachers to assist students with hearing impairment in an inclusive classroom. Majority teachers who are teaching in inclusive classes with HI students were found not to have enough special education on how to assist HI students. They were simply not skilled in a sign language and thus failed to guide HI students to use auditory devices. In class, teachers are teaching without considering the needs of the students with hearing impairment. Students are missing assistances from specialists' teachers in their learning because the number of specialist teachers is not adequate comparing to the needs. The findings are similar to the findings by Maziku [30] who posited that there should be the sign language interpreters and specialist teachers for assisting students with hearing impairment in the inclusive classroom to learn effectively.

4.8 Unable to Pay Attention during Teaching and Learning Process

This was another challenge revealed by the study. It was found that students are unable to pay attention during teaching and learning process because they are failing to receive information from their teachers and students. During instruction, they can't hear in the class, therefore, they can't hear announcements, they can't hear even school bell as well as they cannot ask to their fellow students. They decide to do whatever they want because no one who can care and assist them. Also, more respondents reported that during teaching and learning process, they could pay attention on what is going on because their teachers are not able to use sign language. Due to that situation, they cannot participate and interact with their fellow students, thus, they decided to stay alone and do their own activities apart from listening to their teachers.

4.9 Lack of Hearing Devices

The study also revealed that lack of hearing devices was the academic challenge facing students with hearing impairment. The students learn in the class without wearing hearing aids; not because of lacking knowledge on how to use them, but the reason was lack of these devices at that school. . Hearing devices are very important to these students with hearing impairment in learning and teaching, the

government should make sure that there is the provision of hearing devices to these students so as to make them to learn effectively, this can be done through budgeting for buying hearing aids and provide enough fund for buying hearing devices.

4.10 Difficult in Taking Notes during Teaching and Learning Process

The study also revealed that students with hearing impairment are facing the problem of taking notes in class during teaching and learning process. The students with HI were complaining that they cannot take notes because teachers are teaching by using lecture method. They cannot hear; they cannot see on the blackboard because they always sit at the back which makes them fail to take notes for the reference. Also, teachers are not caring on the students' feeling; they only teach those students with hearing issues and sometimes leave the class. This makes students with HI to feel isolated in the class.

4.11 Communication Barrier

The findings further revealed that teachers who are teaching students with hearing impairment are not able to use sign language, gesture, lip reading and total communication. They only use oral language in teaching and learning process. Also, during teaching and learning, there is no sign language interpreter to assist students with hearing impairment to understand; they only deal with hearing students because they understand oral language. The findings related with the findings by Mathew in 2014 who discovered that teachers should use lip reading, sign language, total communication with HI students so as to make them achieve the set of educational goals. The findings are also related with the theory of Mind by Premack which posits that students with hearing impairment are failing to develop ToM because of delaying in language acquisition. Teachers cannot communicate with SHI in class because they cannot use the sign language in teaching and learning. This causes these students to fail to predict and interpret their behavior by using representations of hidden and mental states such as their belief, emotions, intentions and perceptual states.

4.12 Lack of Sign Language of Some Words in Science Subjects

Lack of sign language of some words in science subjects was one of the academic challenges

facing students with hearing impairment in the inclusive classroom. Many respondents had the view that no sign language of some words in science subjects like in Chemistry and Physics. This makes them to perform poorly in the science subjects. The findings also relate with the argument of the theory of Mind by Premack which advocates that students with hearing impairment are unable to predict and interpret their behavior by using the hidden mental states such as their beliefs, emotions, intentions, goals and perceptual states because they are less exposed to vocabulary. This is due to the communication problem and lack of some terminologies in science subjects. This indicates that the government should provide more sign language dictionaries with science subjects terms accommodating diverse knowledge of science subjects.

4.13 Lack of Sign Language Interpreters

This was another academic challenge facing students with hearing impairment in the inclusive classroom revealed by this study. Many respondents complained on the absence of sign language interpreters in class during teaching these students. The study further revealed that teachers are complaining that they teach well but there is no one to interpret what is going on to students with hearing impairment in class. The findings above relate with the finds by Maziku [30] who discovered that students with hearing impairment need specialist teachers and sign language interpreters so as to make them learn effectively in the class.

5. CONCLUSION

Generally, the findings identified the academic challenges facing students with hearing impairment in inclusive classroom in public secondary school in Kyerwa District. The findings from the respondents revealed that students with HI delay in achieving and capturing the concepts taught during learning and teaching. Similarly, absence of freedom in asking questions during teaching and learning when the concept is not well understood, delaying in accomplishing activities given in the class, teaching without pictures, charts and real objects, poor classroom setting during teaching and learning, shortage of specialist teachers. Finally, unable to pay attention during teaching and learning process, lack of hearing devices, lack of signs languages of some words in science subjects, difficult in taking notes during

teaching and learning process, lack of sign language interpreters and communication barrier were also the academic challenges facing students with HI in inclusive classroom.

6. RECOMMENDATIONS

Therefore, the researcher recommends the government to provide seminars and training to the teachers who are teaching students with hearing impairment in inclusive classroom, motivate teachers who are teaching students with hearing impairment in inclusive education by giving them rewards, providing hearing devices to the students with hearing impairment together with teaching and learning materials, providing specialized supports services to the school such as audiology, and speech therapy for students with hearing impairment, promoting the accessible curriculum including textbooks which is favourable to the needs of students with hearing impairment, to allow and open the program of special needs education to be the compulsory subject at all colleges and universities which train teachers so as when they complete, they complete with special education knowledge. employing teachers with special education so as to teach and assist students with hearing impairment in inclusive class, employing sign language interpreters in the school with students with hearing impairment in inclusive classroom so as to make them to know what is taught in the class, allocating enough fund and learning resources to make students with hearing impairment in inclusive system are not facing the academic challenges and are learning without complains.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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