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Assessing the Impact of Hearing Assistive Technologies on the Academic Progress of Learners with Hearing Loss in Primary Schools in Malawi: A Case of Lilongwe Rural East

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ABSTRACT

Many parents from rural communities nowadays are faced with many challenges in terms of their children's education. One of the challenges is hearing problems. It is difficult for a rural impoverished parent or guardian to think of treatment for their children when such services are rarely heard of. Many children have great dreams for the future but if one has a challenge of hearing, such dreams cannot be realized. This is where assistive technologies have to come in to aid such school-going children. The study aimed to assess the impact of assistive technology on the academic progress of learners with hearing loss in rural primary schools in Malawi: A Case of Lilongwe Rural East. The study adopted a qualitative research approach with a target population of 65 who were screened by African Bible College Clinic, comprising 10 learners with hearing impairment in four (4) primary schools from Lilongwe rural east and four (4) teachers and ten (10) parents. A sample size of 18 was determined. Purposive and stratified random sampling techniques were utilized to determine respondents. From the sample size of 18, all 4 teachers were purposively selected to participate in the study with seven (7) learners while the remaining were parents who were picked through stratified random sampling technique. The study established that hearing aids helped in the academic progress of some school-going children with hearing loss. In addition, the study also noted that hearing aids influenced many learners to participate in class activities because they can hear and follow class conversations. It has also been noted that some learners have other disabilities apart from hearing loss which prevent them from performing well. The study proposes frequent early identification and intervention through the provision of hearing aids to develop effective communication. Schools should then keep progress records for all learners with hearing aids which are in good condition. The study will be beneficial to the government as policy developers, the school as policy implementers, and the community as people who live with the affected learners.

INTRODUCTION

Emmanuel University, in partnership with African Bible College Clinic, annually conducts screening exercises on students in 18 primary schools in Lilongwe, Malawi, to identify those with hearing loss and help them accordingly. In 2022, the exercise managed to screen 30 learners at Mtenthera Primary School 2 were fitted with hearing aids, 7 learners at Mthandiza Primary School and 4 were fitted with hearing aids, 24 learners at Mwalawanthonga Primary School, and 2 were fitted with hearing aids, 4 learners at Chilembwe Primary School and 2 were fitted with hearing aids. Some learners had their ears cleaned and treated for infections. Many children in society especially rural Malawi are faced with hearing problems. Most of them do not have access to the right treatment due to several reasons. Learners without learning difficulties in terms of hearing problems do not have issues that may need hearing equipment or treatment. This means that assessment of academic performance is likely to be better than those with hearing loss or problems. The study would like to assess if learners benefit from hearing aids for their academic success.

Purpose of the Research

The main purpose of this paper was to assess the impact

of Hearing Aids on the academic progress of learners with hearing loss in rural primary schools in Malawi, a case of Lilongwe Rural East. There were other specific purposes which intended to:

1. To identify the effects of hearing loss on the academic progress of learners
2. To establish the advantages for learners of using hearing aids in classrooms
3. To find out the academic achievement of learners before starting to use assistive hearing technology
4. To establish the impact of hearing aids on learners' academic progress after being provided with hearing Aids.

Research Questions

The research study was guided by the following research questions:

1. How does hearing loss affect the academic performance and progression of learners?
2. What are the advantages of using hearing aids in the classroom for learners with hearing problems?
3. What are the academic challenges of learners with hearing impairment?
4. What is the impact of hearing aids on learners with hearing impairment?

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Significance of the Study

The study was relevant in that it provided additional knowledge on proper steps that need to be taken before providing any hearing aids as assistive devices to needy learners in this specific area. The study identified hearing loss on the academic progress of learners, established the advantages of using hearing aids in a classroom, and also established the impact of hearing aids on learners with hearing impairment. to stakeholders and the general public in the provision of intervention strategies assistive hearing aids helped to address the plight of students with hearing impairments. It will further open new avenues for further research in the education of students with special educational needs in this field. The study further provided reasons on how hearing loss affects the academic performance of learners, and also how the use of hearing devices can better improve learners' academic performance in Malawi or elsewhere.

LITERATURE REVIEW

Global View on Assistive Hearing Devices (Hearing Aids)

In recent years, researchers have become increasingly interested in investigating the use of technological devices to enhance the achievement of children with specific learning disabilities in inclusive classrooms (Starcic & Istenic, 2010; Susan, 2009; Wood *et al.*, 2017). These studies have demonstrated that assistive technology is a potential aid to promote the educational needs of children with SLD, and the integration of technology is important to increase the efficiency of learning among children with learning disabilities (Starcic & Istenic, 2010 Wood *et al.*, 2017). The successful implementation of technologies in the classroom largely depends on the knowledge and attitude of teachers regarding the use of technology in the teaching and learning process (Cope & Ward, 2002). Salamanca's statement asserts that the general education setting should be regarded as a venue of child development, open to all children regardless of their physical, emotional, and intellectual disabilities (UNESCO, 1994). The Individuals with Disability Act (IDEA) in the USA requires that, when a child is identified for special education services, an individual education program (IEP) should be developed (IDEA, 2004). This comes after an individual student has been assessed and identified as having a specific learning disability. The IEP prevents marginalization and discrimination of the concerned affected learners. This helps to promote inclusivity.

The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) emphasizes the rights of people with disabilities to access lifelong learning without discrimination and on an equal basis with others as well as not to be excluded from mainstream education due to their disability. The major goal of education for children with disabilities is to provide the best possible facilities for all children with disabilities in the most appropriate setting to achieve the highest possible level

of education in a mainstream setting (Felicia *et al.*, 2014; Hornby, 2015). However, the learning development of children with learning disabilities in a general education classroom depends on the skillful application of teaching techniques and materials to facilitate the learning of these children (Keetam & Alkahtani, 2013). It is the responsibility of teachers to evaluate, organize, and come up with an implementing plan for instructional activities for classrooms that have children with disabilities such as hearing impairment. Appropriate instructional materials help the affected learners to have a long concentration span in the classroom during lessons. Interventions involving assistive and instructional technologies, peer tutoring, cooperative learning, and the teaching of meta-cognitive strategies have been identified as useful in optimizing the effectiveness of teaching for children with specific learning disabilities (Lindeblad *et al.*, 2016).

Individuals with Disability Education Act (IDEA), states that any equipment that is used to improve functional capabilities of individuals with disabilities is considered as Assistive Technology (AT). It may include any software program, or product system that is used to increase, maintain, or improve the functional capabilities of people with disabilities (Kumar & Raja, 2010). Selection, acquisition, and use of AT are dependent on the evaluation of the specific needs of the child and the adequate level of the professionals, who work with students with learning disabilities (Campbell, et.al, 2006). Assistive technology allows students with disabilities to increase their accessibility to the curriculum and the quality of the learning experience (Alkahtani, 2013). Worldwide, the use of listening assistive technology extends beyond making the devices easily available to skilled audiologists and technicians to check hearing levels and assure the performance of the listening equipment (Zirzor, 2019; Wagner-Skinner, 2018; The American Speech-Language and Hearing Association [ASHA], 2016). The availability of training and instruction enlightens the students and teachers on how to use these gadgets, and also ensures their full exploitation and use (Zirzor, 2019; Wagner-Skinner, 2018).

African Perspective

Africa still faces a lot of challenges when it comes to development when it comes to listening assistive technology. Listening assistive technologies are devices and equipment that amplify, control, and supply sound to improve a person's hearing capability, especially when there is background noise (Hermawati & pieri, 2019), Individuals with Disability Education Act [IDEA], 2004; National Institute on Deafness and Others Communication Disorders [NIDCD], 2021; Masayi, 2020). Assistive technology is defined as any artefact that is used to improve the functional capabilities, quality of life, autonomy and social inclusion of people with disabilities and these artefacts can be anything from cardboard communication cards to computer software (ATIA n.d.). Assistive technological devices have the

capability to regulate sound quality through reduction of background noise. The severity of the condition determines the type of assistive listening equipment used (Hermawati & pieri, 2019). School-going children with hearing loss have several learning challenges. It has a detrimental influence on the child's language and literacy development, social and emotional development, engagement in frivolous activities, and academic success range; International Journal of Professional Practice (IJPP) Vol. 10 Issue No. 3, 2022 106 Murithi, Mwirichia and Gichohi (IDEA, 2004; Wagner-Skinner, 2018). This was effectively demonstrated by the findings of Wager-Skinner (2018), who observed that learners with hearing loss were unable to participate in activities that their peers did. According to McNicholl *et al.* (2019), Mwantimwa (2021) and Plan Internationally (2021), the benefits of assistive technology include increased communication abilities, social and psychological pleasure, and improved academic achievement. The low adoption of assistive technology in Nigeria has been linked to issues such as high cost of obtaining the equipment, and a lack of skilled specialists and teachers to help learners in using the gadgets. Furthermore, there was no clear guideline directing the implementation of assistive devices for students in inclusive settings (Rohwerder, 2018; Tony, 2019). This finding was comparable to that of Ngonyani and Mnyanyi (2021) in Tanzania, who discovered that learners with hearing impairments were offered listening technology, but not in sufficient quantities.

In Turkana County in Kenya, pupils with hearing impairments at St. Bernadette School for the deaf perform poorly as the mean scores of the learners in Kenya Certificate of Primary Education Between the years 2009 and 2013 were 99.9, 100, 133.1, 118.5 and 126.4. These results were far below the average 250 marks needed for entry into secondary school (Mugisa (2017). In Uasin Gishu County in Kenya, Pwoka (2016) carried out a study in three schools for learners with hearing impairment and the findings revealed that the learners with hearing impairment in this county lagged behind their hearing counterparts as their mean score was 34.18. Similar study was done by Muiruri (2015) in Kiambu County and findings revealed that 86.7% learners performed below average, 11.7% achieved averagely while only 1.6 of them performed averagely. The quality of performance is affected by the quality of education received by learners with hearing impairment. Research carried out in Kakamega County by Opiyo (2013) revealed that a big difference between the academic performances of St. Martin's School for the hearing impaired and that of regular schools. Okutoyi, Kochung, Kabuka, Were & Adoyo (2013) further carried out a study in Kakamega County and revealed that very few (10%) learners with hearing impairment use hearing aids.

It has been reported that people with disabilities face many challenges (Indongo & Mufune 2015), including those related to social identity and education (Groce 2004). Ethically, children with disabilities should have

the same access to education as those without disabilities (Brodin 2010) and, practically, they should have the same access to education to support themselves and to contribute to society in adulthood. The study concerned children with hearing disabilities, which was a significant disability as deafness or partial deafness affected about 5% of the global population in 2018 or about 460 million people, with 34 million of these being children (WHO 2018). Out of these children, almost 9 million were in sub-Saharan Africa, including Namibia (WHO 2012). Learners who are deaf experience challenges such as growing up in a family that is not proficient in Sign Language (Anglin-Jaffe 2013; Luckner, Bruce & Ferrell 2016), which is a language with grammatical rules and structure used by the Deaf and based on visual signs and gestures. In addition, having to learn from conventional textbooks can be difficult because reading skills are developed subsequent to Sign Language skills, resulting in decreased reading proficiency (Verlinden, Zwitserlood & Frowein 2005). These challenges have been reported to foster cognitive deficits that have resulted in impaired academic achievement (Humphries *et al.* 2016; Luckner *et al.* 2016). For instance, in a report based on data from 1974 to 2003 states that learners who are deaf and hard-of-hearing typically lag behind their hearing peers in academic achievement (Qi & Mitchell 2012).

Understanding Hearing Impairments

Hearing impairment has been described as the inability to hear below 25 decibels of sound and is categorized as fluctuating or permanent (Agyire-Tettey *et al.*, 2017). Similarly, Kodiango and Syomwene (2016) refer to hearing impairment as the total loss or slight loss of hearing ability while Nordheimer and Brandl (2015) describe it as the deafness, dysfunction of the auditory system and hardness of hearing (Hardman, Drew, & Egan, 2005). Factors such as disease, accidents, tinnitus condition, heredity, ageing and noise from factories are among the common causes of hearing impairment (Kodiango & Syomwene, 2016; Mpofu & Chimhenga, 2013). It covers the entire range of auditory impairments, encompassing both deaf person and the individual with a very mild loss. According to Quigley and Kretschmer (1998) there are different types of hearing impairments based on where along the auditory path way the hearing loss is sustained. The first is conductive hearing and it affects loudness or intensity linked with speech. The second is sensorineural hearing impairment which affects the frequency, intelligibility, and clarity of the sounds a person can hear. Quigley and Kretschmer (1998) further categorized the causes of hearing impairment into endogenic and exogenic factors. Endogenic factors are a result of some biological cause or process such as hereditary, syndromes, metabolic endocrine disorders and blood incompatibilities.

The Malawi Perspective

The Malawi government, through the Policy Investment

Framework, has been working assiduously to provide a suitable enabling environment for people with SNE (PIF, 2001). The government has further designed the National SNE Policy that seeks to help persons with SNE in every part of the country and has been linked with the National Education Sector Plan (Ministry of Education Science and Technology Malawi, 2008).

There are five special residential schools for learners with hearing impairments in Malawi. These include Mua School in Dedza, Embangweni School for the deaf in Mzimba, Mary View in Chiradzulu, Mountain View school in Thyolo, Malawi Total Communication School (MATOCO) in Blantyre and Bandawe in Nkhata Bay. These special schools are effective because the class size is easily regulated than in general education set ups. Regulated classes with a manageable number of learners help to easily manage the attention of learners as well as providing instructions without many challenges. This implies that the regulated small sized classes are advantageous to learners because they will be saved from sound-detecting challenges and it becomes easy for them to win teachers attention. This makes individualised education plans (IEP) very easy to implement for teachers because of the small numbers which are manageable unlike in mainstream schools.

The 2018 population and housing census of Malawi estimated that 1, 734,250 people have disability in Malawi. This number represents 11.6% of the total population of the country (Malawi Population and Housing Census Report, 2018). Malawi is a signatory to the United Nations Convention on the Right of Persons with Disability (CRPD) since 27th September, 2007 and enacted the Disability Act in 2012 (Malawi Government, 2020). Globally, it is estimated that 15% of the seven billion people are disable in some form (Agyire-Tettey *et al.*, 2017; World *et al.* Bank, 2011). Among the global disability index, hearing impairment is common (Kodiango & Syomwene, 2016).

World Health Organization World Bank (2011) contends that about 360 million people have a hearing impairment globally. Global studies have shown that hearing impairment is worst in Africa as compared to other parts of the world (Agyire-Tettey *et al.*, 2017; World Health Organization, 2012). However, in Malawi, albinism is the most common disability and it account for 0.8 (134, 636) of the national population of the country (Malawi Population and Housing Census Report, 2018). About 24% of the people with disability in Malawi are those with hearing impairment (Malawi Population and Housing Census Report, 2018). In 2005, there were around 60,000 people with disability in Malawi (WHO, 2005).

Research has shown that hearing impairment has an effect on certain developmental areas of children in their early ages. These areas include speech, intelligence, language, psychological development and educational achievement (Kodiango & Syomwene, 2016); Ndurumo (1993). The most important and respected rights for people with disability in Malawi is the right to education. it is to

this effect that Malawi government has signed global treaties on disability and has instituted several initiatives to support people with disability or learners with special education needs (SNE). A good example is the (1948) Universal Declaration of Human Rights proclaimed that every child has the right to education regardless of their status. Similarly, UNESCO framework for action on SNE and the UN Standard Rules on Equal Opportunities for Disabled people (1993) as well as the Education for All (2002) all geared towards providing basic education for all without discrimination (Malawi Human Rights Commission, 2003).

Audiologists advance that children with hearing loss utilize prescribed hearing technology during school hours. Thus, children with hearing loss benefit from the use of devices placed into their ears such as cochlea implants, spoken telecommunication training and instructions, as well as social support services (WHO, 2013). Diverse studies conducted have revealed that hearing aids are useful for people with special needs in some ways. Hearing aids assist people who are differently abled in a variety of ways; including recognizing discourse and resonances (Poss & Mann, 2010), as well as managing time (Green, Houghes, & Ryan, 2011). Hearing aids are helpful to users as they do not focus on finished products when two or four years of usage is over. It is challenging in a developing country like Malawi to have medical doctors who are specialists in audiology. This goes to the factors attached to attaining the qualification which includes financial among others. The expensive equipment for hearing assistive technology is also a hindrance for affected people to have access to the devices. Moreover, repairing services for such devices is also a challenge. Once a device has been damaged, it is very difficult to find hearing device repairers.

METHODOLOGY

Study Location

The study was conducted in Lilongwe rural east schools. Lilongwe District is the capital city of Malawi and is located in the central region of the country. The district is bordered by Kasungu to the North, Salima to the North East, Dedza to the East, Mchinji to the West and Mozambique to the South respectively. Lilongwe District covers an area of 6, 159 sq. km with a population of 2, 626, 901 (Population and housing Census of Malawi, 2018). This study was conducted in 2023.

Research Design

The study design was mainly qualitative in nature because it required a comprehensive description of the required information needed. This research was designed for in-depth interviews and focus group discussions and the interpretation of the eighteen (18) participants including teachers, parents, and learners was done verbatim.

Target Population

The target population of the study consisted of learners with hearing impairment, teachers, and parents

from Mwalawanthonga, Chilembwe, Mthandiza, and Mtenthera Primary Schools where learners with hearing impairment are currently registered. This population was chosen because they fit the scope of learners with hearing impairment, teachers, and parents dealing with learners with hearing impairment to provide the primary information needed for the study.

Sample Size and Sampling Technique

A total of seven (7) learners with hearing impairment, four (4) Head Teachers and seven (7) parents were selected. The researchers chose this number because it represents 70% of the persons with hearing impairment present in the four (4) schools as at that time who were screened by the African Bible College Clinic and were enough to provide detailed information needed for the study. Purposive sampling was used in choosing the participants. The researchers choose those learners with hearing impairment who are older and have stayed longer at the primary schools but also teachers who have taught the learners and their parents. The researchers believed that participants with such characteristics were conversant with the situations at the four (4) primary schools and were able to provide rich data about the influence of hearing aids on the academic performance of learners with hearing impairments. The figure below presents the distribution of respondents.

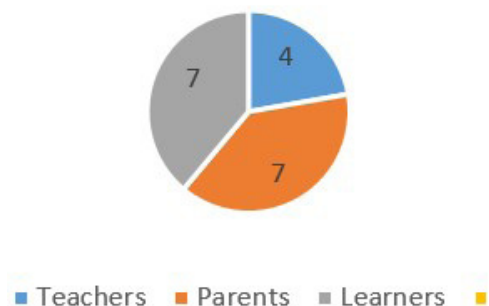


Figure 1: Sample size

Data Analysis

In this research, data was analyzed using qualitative content analysis. It is a process designed to condense raw data into categories or themes based on valid inference and interpretation. In another instance, content analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication,” (Berelson, 1952). However, in this research, qualitative content analysis was used.

The analysis method was chosen because the Sources of data included interviews, open-ended questions, field research notes, conversations, and discussions. The findings were focused on answering the question: Assessing the impact of Assistive Technology on the academic performance of learners with hearing loss in primary schools in Malawi: A case of Lilongwe Rural East. The study was meant to answer the following four specific objectives:

1. To identify the effects of hearing loss on academic performance and class participation of learners
2. To establish the advantages of using hearing aids in classrooms
3. To find out the academic achievement issues of learners with hearing impairment
4. To identify the impact of hearing aids on learners with hearing impairment

RESULTS AND DISCUSSION

Effects of Hearing Loss on Academic Performance

Teachers were asked to give their opinion on how hearing loss imposes challenges on the academic performance of learners. Those who participated responded that many children with hearing loss do not communicate with the other learners as well as the teachers effectively. They fail to contribute during group activities as well as respond to questions from the teacher.

“They don’t participate in class activities even in group work.” (T1)

Another teacher had this to say:

“The child was always sitting at the back and had difficulties hearing”. (T2)

“There was a poor performance from the learner and sometimes could miss some lessons, had problems to capture what the teacher is saying which made the learner absent at times” (T3)

In addition, a parent also responded by saying:

“Samatha kutsatira chinthu ukamuza (Chichewa local language) unable to follow instructions when you tell him.” (P1)

One of the learners had to say this during the discussion: “I was unable to hear the teacher and could not participate.” (HI L1)

Advantages of Using Hearing Aids in a Classroom

The study has revealed that changes have been noticed in learner’s participation in classroom activities after being fitted with hearing aids. Teachers reported that learners were able to take part in class activities because they could hear and communicate with others and teachers as evidenced below:

“This time the learner can fully participate, answer certain questions, and take part in group activities.” (T2)

However some of the learners had different opinions on their experiences after receiving the hearing aids. One learner had this to say:

“Ndimamva kupweteka kukhutu (Chichewa local language), meaning I feel pain in the ears. Ndimamva phokoso (Chichewa local language)– I hear a lot of noise” (HI L2).

Academic Achievement Issues of Learners with Hearing Impairment

The study revealed that learners benefited in their academic achievement after being given hearing aids. Most of the learners interviewed indicated that the hearing aid assisted them in their academic performance.

They were able to hear properly because they were able to respond to questions from the teachers and participate in class activities. For example, one learner had this to say: “Ndimatha kutenga mbali poyankha mafunso (Chichewa language) – meaning, I can take part in answering questions.” (HI L3)

This was supported by the teacher who said: “Learners take part by raising a hand to respond to questions from the teacher because he can hear. Also gives ideas in group activities.” (T3)
This is supported by the findings from progress reports as shown in the tables below.

Table 1: Learners don't participate in class activities even in group work

Learner	Class	Term	Eng	Chichp	Math	Ses	E/Art	P/S	Total
L1	6	1	20	25	18	15	20	15	113
	6	2	19	30	50	36	20	25	180
	6	3	30	40	25	18	25	30	168
L1	7	1	15	30	20	25	30	30	115
	7	2	18	46	27	50	30	25	195
	7	3	19	53	20	50	33	29	204

The table above generally shows that the learner improved in academic achievement though in some areas, performance was not steady. It is clear in standard 7 that

the learner improved greatly from 115 total marks in term 1 to 204 total marks in term 3. The learner benefited from the use of a hearing aid.

Table 2: Learner can fully participate, answer certain questions, and take part in group activities

Learner	Class	Term	Eng	P/S	Chich	Math	SES	L/S	Total
L2	7	2	58	40	46	35	48	23	250
	7	3	62	47	71	42	54	38	314

The learner improved in all the learning areas with Chichewa subject (chich) being the best of all and Life

Skills being the least. However, the grades show steady progress in academic performance.

Table 3: Learners take part by raising a hand to respond to questions from the teacher because he can hear

Learner	Class	Term	Eng	P/S	Chich	Math	SES	L/S	Total
L 3	6	2	56	51	69	34	57	44	311
	6	3	60	61	70	64	61	53	369

The learner in the above table shows that the hearing aid assisted in improving academic performance because in all the learning areas there was improvement though there was a slight improvement in Chichewa with a margin of 2

marks from the previous score. The learner below improved in academic performance though had a slight change in mathematics where the learner managed to improve by 1 mark.

Table 4: The learner improved in academic performance though had a slight change in mathematics

Learner	Class	Term	Eng	P/S	Chich	Math	SES	L/S	Total
L 4	6	2	40	40	24	51	43	43	241
	6	3	46	54	67	50	50	65	332

In conclusion, it can be confidently said that the study revealed that if learners with hearing loss are provided with hearing aids, their academic performance improves as shown by the progress reports above from four (4) learners out of the seven (7)’. This is in support of the research study by Choudhry, Noor, Shahid, Mukhtar, Zahra, and Butt, (2021) who concluded that the use of hearing aids supports learning and leads to better grades.

The Impact of Hearing Aids on Learners with Hearing Impairment

The study revealed that there has been an improvement in student academic achievement than before receiving hearing aids. The evidence from parents indicates that learners can perform better than before.

“Amachita bwino moti amatha kukhoza nambala 18, 15, or 12 (Chichewa language) as opposed to when he had no hearing aid”, meaning that “he can get position 18, 15 or 12 than before receiving the hearing aid” (P2)

This is in support of the studies conducted by various researchers which confirm that the use of hearing aids improves the academic performance of learners with hearing loss. Research has further noted that early intervention and early use of hearing aids are key to the attainment of better grades.

Limitations of the Study

One of the limitations was that some learners' voices were not audible enough to understand what they were talking and required to ask them to repeat. Another limitation was the type of assistive devices given to the learners. The research was done on the assumption that the process of identifying the causes of the hearing loss of the students, the diagnosis, and the prescriptions of the type of assistive devices given were properly done by the expert personnel. The other assumption was that the learners were given enough information on how to handle and maintain the devices for effectiveness.

CONCLUSION

The study attempted to answer the research questions through the objectives by using a qualitative approach. The study used class progress records, face-to-face interviews, and focus group discussions. The main research question for this study was: "Assessing the impact of hearing assistive technology on the academic progress of learners of learners with hearing in primary schools in Malawi: A case of Lilongwe Rural East. The findings confirmed that assistive hearing devices positively influence learners' motivation for consistent class attendance, promoting good academic performance on learners in and outside class. Teachers explained that learners' ability to understand what teachers were teaching them and also participating in different activities increased their social ability. This is because they gained confidence every day they interacted with their classmates and friends. Learners' emotional well-being was also beefed up as they were able to relate well with others without feeling segregated or discriminated against. Feedback from all three groups of participants agreed with the fact that assistive devices in hearing for school-going children with hearing challenges help to improve academic participation which enhances good academic progress in terms of results from tests given. Assistive hearing devices if not supplied to learners with hearing loss affect academic performance in primary schools. This is because hearing aids according to this study helped in improving communication skills which facilitated the academic performance of learners in class. The study also implied that the orientation of learners, parents, guardians, and household members on how to use hearing aids once donated or bought for use was very important. This is because a lack of knowledge on proper fixing or use led to many such devices getting destroyed untimely. Other learners ended up giving their friends who could admire what their friends were wearing and ended up borrowing and misusing the devices out of curiosity.

RECOMMENDATION

The research recommends that:

1. A deliberate collaboration between the Ministry of Education and the Ministry of Health be signed to cater for such hearing loss in schools.
2. Schools should come up with a schedule of inspections where health personnel in the specialized area visit schools to check or review learners with hearing loss and make recommendations for either referral or hearing aids.
3. Schools should be organizing seminars or workshops where they invite parents of the affected children, learners, chiefs, and teachers for a sensitization campaign on how to respect, motivate, or help such learners with hearing loss and provide guidance on procedures for reporting to school if the learner has stopped coming to school.
4. Concerned learners should be sensitized on the importance of the devices looking at how expensive and rare it is. Parents and guardians need to be oriented on how to fix the devices and also how to properly use them especially those with young learners to avoid the devices being destroyed untimely.

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