Inclusive Education and the Dynamics in Students with Hearing Impairments in Tanzania: From Teachers' and Students' Perspectives on the Use of Sign Language

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Abstract: *Over the past three decades, inclusive education has become a contagious topic in the education systems of various countries around the globe. This has prompted the current study to explore the use of sign language in the teaching and learning of the students with hearing impairments in Patandi Maalum inclusive secondary schools in Tanzania. This qualitative study used in depth interviews as data collection tool with a total of 10 secondary school teachers and 8 students with hearing impairment. The translation used to interpret conversations with students with hearing impairments. Thematic analysis were used to analyze the collected data. Findings reveal that students with hearing impairments are given special care while teaching and learning in an inclusive environment, especially when it comes to use sign language. However, students struggle much with medium of instruction, teachers' competence, the kind of assistance obtained from their fellow normal students, which could be caused by the teacher's competence and the availability of resources. Also, students' perspectives on the difficulties and the entire process of teaching and learning sign language, curriculum, and the amount of time needed to complete each school level differed widely. The study recommends the increase of time from four to six years and two to three years in advanced secondary education levels. It suffices also to suggest a friendlier learning environment with adequate relevant resources for students with hearing impairments. This should be accompanied with professional development for special needs teachers.*

Keywords: *Inclusive education, hearing impairment, sign language, teacher's competence, curriculum.*

1. Introduction

Globally, inclusive education has had different histories. The idea is only now becoming known in certain nations. Since the 1970s, other countries like the United States, the United Kingdom, and Australia have been interacting with its core ideas. According to Triviño, A *et al.* (2022), inclusive education is a system of instruction that minimizes the risk of exclusion and achieves educational goals by guaranteeing that all students, regardless of their skills, cultural background, or economic status, have equal opportunities and choices to actively participate in school activities. The process of addressing the needs of every student through increased engagement in the classroom and modifications to the content and practices to make them more student-friendly is known as inclusion (Charry, *et al.,* 2023).

Since the Salamanca Statement and Framework for Action Ainscow (2019), when inclusive education became a worldwide necessity, there has been a global movement that has produced policy texts for many nations, all of which support inclusive education in Tanzania. The document highlights the need of providing basic education to exceptional persons, was ratified by the Tanzanian government. This is a significant step in the direction of EFA goals being realized. The first Education for All conference was held in Jomtien in 1990, and endeavors to realize its objectives have benefited greatly from the ratification. Among these are the United Nations Convention on the Rights of Persons with Disabilities (2006) and the Education for All (EFA). Using the 1990 EFA efforts, the conference made a substantial contribution to the cause of including disabled children in the regular school system. The implementation of inclusive education has been impacted by all of these at the national and worldwide levels (Robert, *et al*., 2023).

Robert, *et al*. (2023) on their study about Challenges facing students with hearing impairment in Inclusive Classroom in Public Secondary School in Mabira Secondary School in Kyerwa District, asserts that inclusive education is a process that strengthens the educational system's ability to reach students' diversity. It entails changing the culture, policies and practices of a school. It is one of the most effective approaches to promote inclusivity in society, it is therefore, a strategy for universalizing education regardless of the learners' disabilities (Susilawati, *et al*., 2023).

These kinds of children in social aspect includes those with disabilities particularly children with Hearing impairment. According to Chalise (2024), Hearing impairment is the inability of a person to hear sounds clearly. This could be related to injury or sickness to any component of the ear. This concept is reinforced by Akay (2023), who asserted that the ear is the part of the human body responsible for hearing. Anyone who is unable to hear those around them should be considered to have a hearing impairment. Hearing is critical to the development of normal speech, language, and learning. Remarked that hearing impairment, sometimes known as deafness, is the process by which an individual is unable to hear sound, either completely or partially. However, it should be noted that hearing impairment is a medical problem that progresses and affects people in varying degrees as they age.

Tanzania, like other countries in Africa and the world at large, considers inclusive education as a very essential process of increasing access and quality of education for all. Hence, Tanzania defines inclusive education as a system of education in which all children, youths, and adults are enrolled, actively participate, and achieve in regular schools and other educational programs regardless of their diverse backgrounds and abilities without discrimination, through minimization of barriers and maximization of resources (MoEST, 2018). Moreover, Tanzania is a signatory of various international education documents that include the following: the International Declarations of Human Rights, which state that education is a right for all, the World Declaration on Education for All (EFA), which focused on universalizing access and promoting equity in education by considering disability ; and the Salamanca Statements and Frameworks of Action on Special Needs Education, which emphasized the attention of education to children with special needs (Ainscow, 2019). However, Pagano (2024) asserts that, due to dynamics in national contexts and ideologies, implementing inclusive education is essential to attaining rights-based on education for all (EFA) which is experienced differently, while pose a challenge for many teachers, Tanzania in particular.

In order to implement the issues of inclusive education, Tanzania has taken several measures and actions from the policy level to the implementation level. In its Education and Training Policy (ETP) of 1995, one of the government's aims and objectives was to promote and facilitate access to education for disadvantaged social and cultural groups, which includes children with disabilities such as the vision impaired, the hearing impaired, the crippled, and the mentally retarded (URT, 1995). Based on the Education and Training Policy of 1995, Tanzania launched the National Strategy on Inclusive Education 2018-2021, which aimed at enrolling all children, youths, and adults who could actively participate and achieve in regular schools and other educational programs regardless of their diverse backgrounds and abilities (MoEST, 2018).

Therefore, this paper explored about Inclusive Education and the Dynamics in Students with Hearing Impairments in Tanzania: From Teachers' and Students' Perspectives on the Use of Sign Language. The paper intended to answer the following questions:

1. What are teachers' perceptions on the use of sign language during teaching and learning in inclusive classroom? and
2. What are the students' perceptions towards the use of Sign language in inclusive classroom?

1.2 Statement of the Problem

Students with hearing impairments face stigma, discrimination, and violence around the world and Tanzania in particular making it difficult for them to fully

realize their rights and participate in daily life. Public awareness, religious teaching, the government, and civil society organizations' initiatives have all contributed to a favorable shift in perception, such as the provision of sign language, instruction, and learning materials to reduce stigma and discrimination in the learning process. Students with hearing impairments attend school less frequently and are more illiterate than people without hearing impairments. On the other hand, those who attend schools are unable to know what is happening during the teaching and learning process.

A key element of successful inclusion is the attitude of teachers toward inclusion, which affects how they handle students and the entire teaching and learning process (Reed et al. 2008). Most of the studies reviewed shows teachers' lack of knowledge and poor perception for hearing impaired students is a downfall factor for Dynamism and progress of inclusive education in hearing impaired students. Therefore, it seems teachers lacked special training in teaching special needs education and pedagogy designed for students with hearing impairment. As a result, the current situation in Tanzania encourages the study to concentrate on the dynamics of the students with Hearing impairment including those impact their learning, social interactions, and overall development because as a teacher to understand the dynamics of students with hearing impairments is critical to creating an inclusive and supportive educational environment. Adapting techniques to their specific needs can considerably improve their learning experiences and social development.

2. Literature Review

2.1 Inclusive education for hearing impaired students

Chalise (2024) defines that, Hearing impairment as the incapacity of an individual to perceive sounds clearly where by an illness could be the cause. On the other hand, Heward (2006) describes that those levels of hearing loss can be slight, mild, moderate, severe, and profound depending on the average hearing level. In an educational context, a hearing-impaired student is a student who is not able to use hearing to understand speech. Therefore, this study dealt with permanent hearing loss, which is severe or profound, and therefore, the term "hearing impairment" in this study refers to permanent hearing loss where by a student has no means of any communication except the use of Sign language.

Exclusively, in implementing the issues of inclusive education, Tanzania has considered the hearing-impaired students in its objectives so as to promote access to education. In the Education and Training Policy (ETP) of

2014, the government also wanted to promote and facilitate access to education for disadvantaged social and cultural groups, which includes children with disabilities such as hearing-impaired students. Akay (2023) shows that, the way teachers view students with disabilities, particularly those who have hearing impairments, has a significant impact on how effective inclusive education is. Teachers that support inclusive education must assist students in all facets of life. Instructors ought to develop the practice of periodically ensuring that all students with hearing impairments receive early notification (Akay, 2023).

Nonetheless, diverse teaching and learning approaches as well as pedagogical approaches are implied by teachers' attitudes toward students with hearing impairments in inclusive education environments. Notwithstanding the government's best efforts to promote inclusive education and modify the relevant policies, students with disabilities—including those who have hearing impairments—perform poorly academically on secondary school exams (David, 2021).

Moreover, hearing impaired children encounter difficulties in the acquisition of sign language, which causes even further complications in comprehending sign language. Burton (2013) indicated that a number of unique language comprehension challenges are faced by hearing impaired children than their peers with normal hearing. The hearing impaired are majorly restricted from social interactions, and to participate in social venues, they should be able to use lip reading or sign language as methods of communication with others. These circumstances are complicated even more by the fact that a number of the hearing-impaired children are born in societies where hearing impairments are perceived as a disability, and a parent might think that the child might not be competent enough to measure up with the other students and will not be capable of living self-sufficiently.

2.2 Sign language as a medium of instruction

In countries that have adopted the use of national sign languages as the medium of instruction in schools for the deaf, an unprecedented success has been achieved in the education of the deaf. In Sweden, the Swedish Sign Language became the language of instruction as well as a teaching subject in 1995 (Chupina, 2006). Since then, special schools as well as mainstream schools use the same curriculum, which includes sign language as a subject. Deaf students in schools study the sign language as well as lessons conducted in written Swedish. This has helped improve the academic performance of the students. Smith and Ramsey (2004) described the classroom practices of a

deaf teacher who had 35 years of experience. The teacher used American Sign Language (ASL) as the medium of instruction in a fifth-grade classroom in a residential school. An analysis of three lessons illustrated the use of ASL linguistic features to encourage student participation.

Kalya (2020) conducted a study on the impact of Kenyan Sign Language (KSL) on the academic performance of stu dents with hearing impairment. The study's findings indic ated that KSL was not used in schools because teachers w ere not trained in the language. This shows that, some teachers in the inclusive settings they do not have knowledge to handle communications with students with disabilities including the use of sign language to the hearing-impaired students due to lack of trainings and therefore, the study suggests the government of Kenya to train more teachers to increase their knowledge of using Kenyan sign language particularly during teaching and learning.

Smith and Ramsey's (2004) analysis confirmed that teachers' sign language fluency and experience interacted to yield an effective strategy for increasing student involvement. These findings are consistent with the views expressed by other studies on the same topic (Albertini & Lang, 2001). Moreover, the language of instruction and learning has been found to be the primary cause of Deaf people's inadequate literacy acquisition on a global scale. Historically, spoken languages like French were taught in many deaf education programs instead of the signed language specific to that nation, French Sign Language. In the past, lip-reading and speech development were prioritized above the development of a language system suitable for deaf children's sensory abilities in schools. In summary, this pervasive practice limited the curriculum's topic areas that deaf students could access.

Using a signed language as the primary language of instruction exposes Deaf learners to a visual (as opposed to an aural) language that they can readily pick up, given biological readiness and sufficient language stimulation, according to an expanding body of research and related practice (Mayer & Akamatsu, 2003). Teaching a signed language as the primary language of instruction and learning makes it easier for students to access an appropriate language system through which they may acquire topic information, such as science, history, or mathematics, than it is to teach speech and lipreading abilities.

2.3 Theoretical Framework

The study conducted by Vygotsky regarding children with unique needs reveals how pupils might benefit from the special program in the school. He gave two examples of how Vygotsky's theories may be used in modern special education. Vygotsky (1978) founded the Cultural-Historical Theory, which is a widely used theory in special education. In 1978, Vygotsky developed a novel theoretical foundation for the most extensive, inclusive, and humane special education practice of the 20th century. His conceptual model serves as a theoretical foundation for working with special needs (hearing impairment) pupils.

According to the theory, the kind or degree of the child's handicap may not have a significant impact on how effective the compensatory measures are. What matters more are timeliness and appropriateness (with regard to the methods employed). The study that Vygotsky did with children who were deaf, dumb, and blind was one of the most notable confirmations of this somewhat bold assertion. Vygotsky came up with the novel theory that the higher psychological functions might grow to the point where they most effectively compensate for the loss or inadequacy of natural functions.

The theory concludes by suggesting that, paradoxically, while the natural processes (visual, auditory, motor, etc.) may be impaired, the cultural processes of abstract reasoning, logical memory, and voluntary attention are the objects of rehabilitation. Rehabilitation efforts must therefore continue to develop special "psychological tools" to address special needs. This argument, made long before the days of complex electronics and computers, is stronger than ever. Therefore, under these lenses with teaching and learning as a process and teachers acting as facilitators, considering other social-cultural factors, the current study frames its theoretical constructs.

3. Methodology

3.1 Research Design

A research design is the configuration of parameters for data collection and analysis with the goal of merging the research framework of the study with relevance to the research goal (Berg, 2004). With a focus on qualitative approaches, the study used a case study design specifically studying Patandi Maalum Secondary School. This included ascertaining perceptions of teachers taught in that school and students with hearing impairments. In this context, the study considered a purposively sampling at Patandi Maalum secondary school, where the target respondents

would include students with hearing impairments, teachers and head teacher.

3.2 Study area

In this research, the primary location was Patandi Maalum Secondary School found in Meru District, Tanzania. This study investigated the important factor of deaf students at "Patandi Maalum secondary school. Therefore, the school was selected because it is one of the first and biggest special inclusive secondary school in Tanzania whereby students with difference disabilities, including Hearing impairments and ordinary students are available.

3.3 Samples and Sampling

A sample is a sub-group of the target population that the researcher plans to study for the generalization of the entire population (Creswell, 2012). Researcher sample size drawn from the perspectives of teachers, students and Head teacher of Patandi Maalum Secondary school.

3.4 Sampling technique

This refers to the method used in drawing samples from a population usually in such manner that, the sample will facilitate determination of some hypothesis concerning the population. In this study, a researcher used purposive sampling technique.

3.5 Purposive Sampling

This refers to a process on which the researchers purposely choose subjects in which his or her opinion are perceived to be relevant for the study and questions will guide (Berg, 2004). This sampling technique used to select nine (09) number of teachers who served as respondents in the study in the basis of teaching experiences and academic qualifications as well as the head teacher and students. See the table 1 below.

Table 1: Characteristics of the participants

Participants	Education level				Work experience	Total
	Form 3	Form 3	B.Ed	M.A	Years	
Secondary school Teachers			9		< 3	9
Heads of school			1		< 3	1
Students	4	4			3-4	8

3.6 Data Collection Tools and Procedures

Data were collected through in-depth interviews with students and teachers. A conversational format was adopted for the interviews. Nonetheless, the interview guide functioned as a roadmap to keep the conversations on course and allowed interviewees to speak candidly and naturally at the same time (Cresswell, 2009). Apart from the primary enquiries, they were followed up with more in-depth probes. The teachers and students were questioned about specifics, such as what they really do in the classroom to help deaf pupils acquire sign language, using the interview guide created for the study.

3.7 Validity and Reliability

In this study, tools were prepared and submitted to experts for advice on the structure and suitability prior to embarking on actual data collection; the tools were administered to educational stakeholders. It is argued that the validity should not depend on the subjective judgement of only one specialist or group (Cresswell, 2009). It should be based upon careful analyses by several specialists of instructional objectives and of actual subject matter

studied. Therefore, the study carefully used expert advice check interview guides. Validity of the tools was carried with the extent to which tools actually measures and what it is actually supposed to measure. Contrary, on tools reliability, a researcher made a pre-testing of the tools in outside the study location, followed by test-and-retest method.

3.8 Data Analysis

The study employed thematic analysis which included categorization and interpretation of data in terms of common themes, and synthesis into an overall portrait of the case (Leedy & Ormrod, 2005). The students, the students (hearing and Deaf), and the translator all contributed spoken, written, and signed language to the classroom conversation that was examined.

3.9 Ethical Considerations

A letter of research approval was secured from St John's University of Tanzania, the Directorate of Postgraduate Studies office at St John's University of Tanzania, and the Executive Director of Meru District, Arusha. Participants were assured of being kept anonymous and that the findings of this study should be only used for educational purposes. The research obtained individual consent verbally and in writing.

4   Results and Discussion

The findings in this section are presented based on the themes obtained after data analysis.

4.1   Teacher's perception on the students' use of sign language

The findings presented in this part focused on exploring teachers' perceptions on the student's use of sign language during teaching and learning process in an inclusive classroom. The data was collected from ten teachers from Patandi Maalum Secondary School on teachers' perceptions of the use of sign language during the teaching and learning process in an inclusive classroom that accommodates learners with hearing impairments.

Responses from eight teachers indicated that learners with hearing impairments were adequately taken care of during the teaching and learning process in the considerations of the use of sign language to facilitate effective communication. Responding to the question of why

students with Hearing impairment are adequately considered, one of the teachers claimed that:

> .."*The reason is that students with Hearing impairment are faced with only a hearing problem which also affects communication process compared to leaners with visual and physical disability. Therefore, to help students with Hearing impairment during teaching and learning process sign language use should be paramaunt"* [17/07/2024].

Also, another teacher maintained the argument by saying:

> "*...Sign language use during teaching and learning process is our school policy to make sure that all learners, especially those with hearing loss are not left behind. So, to achieve this, staff and students are encouraged to observe the policy of sign language use in different formal and informal curricular activities''* [17/07/2024]

On top of that, another teacher reported:

> " *Like other people, have the same educational needs regarding knowledge and skills to be mastered in this world of the 21st century. Therefore, even the means of communication should be observed by considering sign language use during the teaching and learning process in an inclusive class that accommodates students with Hearing impairment. Thus, this helps them to minimize the knowledge gap, hence having an equal opportunity in knowledge acquisition"* [17/07/2024]

These citations reveal the extent to which students with Hearing impairment are highly considered during the teaching and learning process in an inclusive setting in the consideration of sign language. It is unclear to consider students with Hearing impairment like non-disabled learners, during teaching and learning process since they are already identified as having learning communication difficulties. Although some responses from respondents indicated that teachers' perceptions of the students' use of sign language during the teaching and learning process in inclusive classrooms are not considered. Michailakis and Reich (2009) on their study *"Dilemmas of Inclusive Education''* shows that, without teachers' competency to

understand and communicate with students with disabilities in schools, students will not achieve academic goals.

Therefore, these findings highlight the degree to which students with hearing impairment are given special care while teaching and learning in an inclusive environment, especially when it comes to sign language. Since students with hearing impairment are already known to have learning communication issues, it is uncertain how to treat them during the teaching and learning process in the same way as students without disabilities. Nonetheless, several respondents were in favor that teachers' opinions on how their students utilize sign language in inclusive classrooms are not taken into account while teaching and learning.

4.2 Students' perceptions on the use of sign language

Many variables were brought up during the interviews with students with hearing impairments. The findings showed that there were significant differences in the ways that students perceived the challenges associated with teaching and learning sign language, the curriculum, and the time required to complete each school level. This is described in the below subsections.

4.2.1 Inclusive education and examination

Four out of Eight students, noted that, according to inclusive education as measured by inclusive examination, hearing-impaired students were left out of the system, which led to their poor performance. As an illustration, one of the students stated:

> "... the examination system, especially in the past years, was not welcoming due to unavailability of resources and experts" [17/07/2024]

This reveals that, in the previous years, setting standards of examination for students with hearing impairment was not considered due to lack of resources for example, special education teachers, teaching and learning materials that prepares students and teaching and learning aids such as hearing aids for students with Hearing impairment but recently at least there is some improvements which originates from the setup of policy, guidelines and strategies. Solange (2022) on his study about the Relationship between Inclusive Education and Children with Hearing impairment and academic achievement shows that, without standard settings in the adapted curriculum and syllabus students with hearing impairments

will experience failures to the examination, the study suggests having a standard set of policy, curriculum, syllabus, strategies and guidelines for students with hearing impairments in inclusive education.

4.2.2 The medium of instruction

Even though instruction is given in sign language, English is the official language in deaf schools. The primary form of communication and teaching medium, sign language, is not formally taught as a subject in schools since it is not covered in the curriculum. As one of the interviewees' comments demonstrates:

> "...the language of instruction is English yes, but the sign language itself is not clearly mentioned by the curriculum.''[17/07/2024]

This shows that, in Tanzanian secondary schools' English language has been given mandatory function as a language of instruction from curriculum basis but Tanzanian Sign language has not been setup as the language of instruction from curriculum basis and it is therefore, led to number of challenges to students with hearing impairment in inclusive educational settings including poor academic performance. It was found that even though instruction is given in sign language, English is the official language in deaf schools. The primary form of communication and teaching medium, sign language, is not formally taught as a subject in schools since it is not covered in the curriculum. This could imply that the effect of hearing impairment on academic performance of learners is profound.

According to Hornberger and Cassels (2007), instructors have the political authority to decide whether to include their students' languages into their instruction, so determining whether their multilingualism will be an asset to the entire class. Currently, pedagogical practice frequently adheres to monolingual principles, and it appears that teachers' teaching practices are reluctantly incorporating the findings of worldwide research on multilingualism (Portolés & Martí 2018). Because of this, teaching strategies frequently exhibit a monolingual bias, emphasize diversity over multilingualism, and view languages as distinct subjects that should be taught separately (Bredthauer & Engfer, 2016). According to empirical data for Europe (Otwinowska, 2017), the majority of educators value multilingualism and acknowledge its benefits.

4.2.3 Collaboration with other students

The findings revealed that the hearing-impaired student's inability to understand the lessons in the class is attributed to the teachers' poor sign language skills. In that situation, they had to rely on asking other students what they knew about the subject and what was required. However, some common students were deemed by the teacher to have little ability and knowledge, thus they were unable to assist them and occasionally mislead. Nevertheless, the teacher believed that some normal students lacked skills and expertise, thus they were unable to help them and sometimes gave them false information.

The results corroborate the findings of Gudyanga et al.'s (2014) study on the challenges faced by hearing-impaired students in Bulawayo urban regular schools demonstrated that mainstream secondary school students welcome the inclusion of students with disabilities. In order for normal students to advance in collaboration and communication with their hearing-impaired friends, it is imperative that they embrace their inclusion. Holding orientation sessions for normal students on a regular basis and stressing to them the importance of relationship, collaboration, sharing, assisting, and building connections with students who are hearing impaired might help achieve this. Khomera, et al., (2020) suggests this as the way to improve the academic achievement of the students with hearing impairment.

This results similar in with Sacks (2001) which found about challenges faced by students with hearing impairment in Bulawayo urban regular schools, their findings reveals that the ordinary teachers were least prepared for inclusive education of children with disabilities due to little training and skills in dealing with students with Hearing impairment. Rosenzweig (2009) argued that while inclusive education has increased in schools around the world, it may be claimed that teacher education preparation programmes have not been properly developed to pro vend inclusive experiences that would enable pre-service teachers to transition into in-service educators. Nevertheless, models like the one Bentley-Williams et al. (2017) highlight "ideal teacher qualities for undertaking challenging inclusive practitioner roles and actively give students teaching settings in inclusive classrooms. To put it succinctly, we advocate for more responsible teacher placements in real inclusive school environments as well as continuous assistance during student teaching assignments. This will enable aspiring teachers to become more knowledgeable and "ready" to teach in diverse classrooms.

4.2.4 Time spent in secondary school

It was found that students with hearing impairments needed more time in secondary school—four or two years—for both ordinary and advanced levels. This contrasted with seven years in basic education, which should have lasted 10 years: The evidence below points:

> *"...we are not like normal students, we need more time to read and understand, maybe we can have more time like two or more years to learn before final examination comes, even if we spend less time in secondary school" (17/07/2024).*

From this vantage point, the four years that secondary schools with inclusive education provide to both normal and hearing-impaired may need to be subject to improvement.

It was found that students with hearing impairments needed more time in secondary school—four or two years—for both ordinary and advanced levels. This was in contrast to seven years in basic education, which should have lasted 10 years. From this vantage point, the four years that secondary schools with inclusive education provide to both normal and hearing-impaired may need to be subject to improvement. Therefore, it is better to rethink how to facilitate learning of the hearing-impaired students as far as the duration (timeframe) is concerned. Teachers already find their current responsibilities frustrating due to a lack of time because it negatively affects their profession's efficacy and efficiency. As a result, instructors may find inclusive education to be unfeasible due to the additional workload associated with its demands.

4.2.5 Lack of exposure to sign language

Findings indicate that the language needs of children who are deaf are not adequately supported by their families. This was evidenced by student 5.

> *"... actually, my parents do not know this language despite being with me for many years now, I learn it from my teachers and colleagues, but some teachers are also not interested with it as they are not deaf" (18/07/2024).*

Put another way, the is lack of parental involvement to expose their deaf children to sign language during the formative years of their lives because they are unaware of it. This demonstrated a high level of deficiency.

Findings indicate that the language needs of students with hearing impairments are not adequately supported by their families. This could imply that, firstly, such parents might have a fear of exposing their children due to the stigma they might receive from the community and the close family members towards the children with HI and thus, lacks confidence but secondly, it is ignorance that is unwilling to learn about their children strengths including the use of sign language. Marshack (2002), highlights that 90 to 95 percent of the deaf have hearing parents and that the inaccessibility of spoken language and the lack of exposure to models of signing exert a detrimental effect on the cognitive and linguistic development of these children.

5 Conclusion and Recommendations

5.1 Conclusion

Overall, the research findings of this study indicate students with hearing impairments are supported in their teaching and learning activities, however there are many challenges associated with their learning. Duncan-Andrade (2009, pp 191) said that "In the end, effective teaching depends most heavily on one thing: deep and caring relationships". The viewpoints of children with hearing impairment impress the society because the things they spoke seemed common sense, rational, and supported by compassion. Furthermore, no discernible differences were found between the things that students with and without learning disabilities (LD) considered to be excellent teaching, which is essentially consistent with the findings of 20 years earlier research (Klingner & Vaughn, 1999). Further, supportive instructor gives students the knowledge they require, they feel encouraged and more capable of achieving academic success.

5.2 Recommendations

To improve the academic performance of students with Hearing impairment in inclusive education, this study makes several recommendations for policy implications, advocacy, reforms, and implementations toward inclusive education for these students with hearing impairments. The recommendations are meant for those involved in education as well as for future study.

1. The Ministry of Education, Science, and Technology (MoEST) should train more special education teachers for HI and assign them to the inclusive secondary schools with shortages, including Patandi Maalum secondary schools. To increase the number of special needs teachers in inclusive schools, the government should establish more special needs colleges and universities and encourage more students to enrol in special. The government should support in-service teachers to pursue higher studies in special needs education for hearing impairments. Having well-qualified teachers would help address the shortage of special needs teachers with hearing impairments. As a result, ordinary students are no longer used.

2. The government, through the Ministry under the *President's Office Public Service Management* and Good Governance's and President's Office, regional administrations, and local government (PORALG), should now arrange the public service category of allowing sign language interpreters to be employed and deployed in inclusive secondary schools, especially those with hearing impairment students.

3. The government, through the Ministry of Education, Science, and Technology, should ensure an appropriate supply of teaching and learning resources such as textbooks, sign language dictionaries, hearing aids, and visual materials. The provision of teaching and learning facilities may facilitate and improve teaching and learning for HI students, thereby improving their academic achievement.

4. The school ought to set up a resource room centre where students with hearing impairments can spend their additional time reviewing material covered in inclusive classrooms. hence enhance their scholastic achievement.

5. Since it is being successfully implemented in primary schools, the period (years) that hearing impaired children spend in secondary schools should be extended from four years of O-level to six years to improve their learning of both English and sign language.

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