Lecturers' Ability to Support Inclusive Learning To Students With Visual Impairment in Higher Learning Institutions in Tanzania

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Abstract

The study investigated lecturers' ability to support inclusive learning to students with visual impairment in higher learning institutions in Tanzania. The study used a qualitative research approach with a multiple case research design. Purposive sampling was used to select 40 participants, including 30 students with visual impairment, 6 lecturers, 2 heads of special needs, and 2 coordinators of a special needs unit. The data were gathered through interviews and focus group discussions and analysed using content analysis. After the analysis, it was found that the majority of lecturers were unable to identify the unique learning needs of students with visual impairment due to the lack of skills and experiences in special education needs. Furthermore, the study found that most lecturers use lecturing as their main teaching method, which does not accommodate students with visual impairment. It was also noted that higher learning institutions lack sufficient supportive teaching and learning materials for students with visual impairment. The study recommends that university curricula be reviewed and modified to accommodate students with special needs and their unique learning needs. Moreover, lecturers and other service providers should be supported with sufficient training in disability and diversity. Lastly, the government should put aside a budget to support students with diverse learning needs to study comfortably in inclusive settings.

Keywords: *lecturers' ability, inclusive learning, students with visual impairment, higher learning institutions*

1. Introduction

In recent years, higher learning institutions in Tanzania have made advances in developing and implementing policies on disability and special education needs. The main goal is to create an inclusive teaching and learning environment, and to support services to students and staff with disability. Inclusive education is universally considered as an organized system of learning that responds to the diverse learning needs of students. It allows both students, with and without disability, to be enrolled together without discrimination, towards achieving their educational goals. Inclusive learning attempts to minimize barriers to learning and the utilization of resources as it allows all student with different special

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educational needs to learn together in the same classroom at all levels of education (Kristensen, 2010). Moreover, efforts to foster inclusion in higher learning institutions and the growing number of students with disabilities, specifically those with visual impairment, are clear signs of progress, although serious barriers to full participation in learning still exist (Slee, 2011).

Globally, the literature indicates that inclusive education that brings together students with and without impairment is the right form of education that is recognized throughout the world (UNICEF, 2016). Students with different types of disabilities include those with visual impairment, hearing impairment and other forms of physical deficiencies; and these are required to attain their education in inclusive settings (Heward, 2013). Despite their impairment, students with different forms of disability should have equal access to educational opportunities. Therefore, the creation of a conducive environment that supports teaching and learning to students with visual impairment (SVI) in higher learning institutions is imperative.

The role of lecturers is to identify these kind of students and their special educational needs to support them in inclusive settings. Students with visual impairment are those who face sight deficiencies, including total blindness, and low vision. Totally blind students do not receive useful information through the sense of sight. Thus, for totally blind students to learn effectively, they require tactile print or braille; and effective auditory senses, for all their learning. They also require aural methods such as tape recorders for their learning. On the other hand, students with low vision use vision as a primary means for learning to read printed materials using large print books and magnifying devices (Hallahan, et al., 2012). Furthermore, SVI need orientation and mobility skills to help them move safely and efficiently from one place to another (Heward, 2013). However, while some lecturers lack sufficient training in diversity and disability, others might have negative attitudes towards SVI.

Lecturers should be key players in inclusive education as they have a significant role in facilitating inclusive teaching and learning in higher learning institutions. Hence, they must be well-equipped with relevant competences for accommodating SVI in inclusive classrooms. These SVI require distinctive teaching methods and approaches adopted to each student, depending on their individual learning difficulties. For these reasons, university lecturers of inclusive classes must have extensive knowledge about individual students' difficulties, their specific pathology, their prognoses, and their expectations (Haug, 2016).

Globally, inclusive education is recognized as an aspect of human rights. In this regard, all governments—in both developed and developing countries—have introduced it and formulated policies, plans and programmes to run, monitor and support its progress (UNESCO, 2015). As a result, currently most education systems involve SVI in their plans and operations. Therefore, lecturers of inclusive classes in higher learning institutions must have the required competences about

the learning difficulties facing their students, especially those with visual impairment, and should know how to accommodate them in the teaching and learning process. For instance, the education policy in the USA recognizes inclusive education in all higher learning institutions, which are all are well-equipped with teaching and learning resources that support inclusive education for SVI (Forman, 2013). It has further been indicated that university lecturers have been adequately trained on how to teach SVI, and on the use of modern equipment that facilitate teaching and learning to such students.

Likewise, educational policies in all European countries have been streamlined to facilitate inclusive education that supports SVI. For example, Wood (2016) informs that university lecturers in England are knowledgeable and skilful in facilitating instructions in inclusive classrooms that accommodate impaired students. With such knowledge and skills, lecturers can identify SVI, as well as the nature and severity of their vision/sight challenges. Also, Wandi (2015) cautions that there is no equal access to education in higher learning institutions because of negative attitudes towards students with disability, shortage of qualified lecturers and administrators to support disadvantaged students, and the lack of enough support by the society at large. All these have negative implications on the identification and provision of the educational needs required by SVI. Experience has shown that SVI experience stigma from the community.

Mombeki (2014) reports that, in Tanzania, in addition to having lecturers who do not have the requisite competences; at the same time there are insufficient teaching and learning facilities and materials necessary for supporting and facilitating learning to SVI in higher learning institutions. Mombeki further argues that there is also inaccessibility to educational infrastructure such as buildings and inadequate special arrangements to support SVI. Consequently, such limits undermine academic achievement among SVI.

Based on the preceding observations, it is obvious that lecturers' ability to accommodate SVI in higher learning institutions is one of the crucial factors that will ensure successful facilitation of an inclusive learning environment among students in Tanzania. The government—in collaboration with non-governmental organizations (NGOs), private institutions and various individuals—has been making efforts to implement and promote inclusive education at all levels of education. However, despite these efforts to promote inclusive education, SVI in Tanzania still face several challenges related to the teaching and learning process in higher learning institutions. For instance, the literature shows that most lecturers in Tanzania teaching in inclusive classes lack professional competence in special education needs. Besides, there is a lack of adequate teaching and learning facilities—including hearing aids, audio books, tactile print (braille) books, large print books and magnifying devices for SVI (Rushahu, 2017; Tungaraza, 2014).

As mentioned earlier, studies have shown that SVI in higher learning institutions are facing a number of challenges, including academic challenges, the lack of financial support, poor infrastructural support, lack of awareness concerning impairment issues, prejudices, negative attitudes, wrong beliefs, and stigma from both lecturers, non-academic staff and non-disabled students (Rushahu, 2017). It is obvious that with all these challenges, SIV are unlikely to fulfil their ambitions in higher learning institutions in Tanzania.

This study, therefore, aimed to assess lecturers' ability to support inclusive learning to SVI in higher learning institutions in Tanzania. Specifically, it intended to assess lecturers' ability to identify unique learning needs of SVI in higher learning institutions; examine teaching methods employed by lecturers to facilitate inclusive learning among SVI in higher learning institutions; and delineate barriers encountered by lecturers in facilitating inclusive learning of SVI in higher learning institutions.

2. Theory Underpinning the Study

The social model of disability (SMD) gives representations of the reality of life experiences of people with disability in relation to environmental, social and cultural factors. The model provides a way of thinking about how we can better understand disability; and how services and support can be designed and delivered efficiently to people with disability (Oliver, 1990). According to the SMD, people with an impairment encounter barriers in both the physical environment, and from other people. These barriers can be removed by making changes to services, structures, and how people interact so that they accommodate the needs of students with disability.

The emergence of SMD has resulted in the establishment of inclusive practices in educational settings, which result into a variety of conditions for the development of students with disability. The model allows us to restructure the educational environment in such a way that all students are able to learn in inclusive classrooms. The model views disability as the disadvantage or restriction of activity caused by the way society is organized which takes little or no account of people who have physical, sensory or mental impairment (Rushahu, 2017). As a result, such people are prohibited and excluded from participating fully in the mainstream society.

The SMD implies that the needs of every individual in teaching and learning must be made the basis for planning because they are of equal importance (Possi & Milinga, 2017). In this view, lecturers are supposed to be prepared to teach all students with different forms of disability, and identify their unique learning needs. In addition, modifications of curricula, teaching approaches and teaching resources in inclusive settings have to accommodate unique learning needs of SVI to facilitate inclusive learning. The model further suggests that in inclusive education, all lecturers are prepared to teach all students with different learning needs. However,

the inclusive learning environment for SVI is viewed as a restriction in itself due to the way it is organized. This indicates that the success of SVI in inclusive learning depends much on the modification of curricula; accessibility of infrastructure; the relationship between SVI, lecturers, and students without disability; and the way learning environments are organized. To conclude, SMD seems to be a useful model to use in enhancing inclusive learning and accommodating the unique learning needs of SVI in higher learning institutions in Tanzania.

3. Methodology of the Study
3.1 Research Approach and Design
This study adopted a qualitative research approach in assessing lecturers' abilities to support inclusive learning to SVI. The choice of the qualitative research approach was deemed appropriate for this study due to the nature of the problem under scrutiny. In addition, the data collection required the researcher to interact with the participants and observe their activities that were related to teaching and learning within their natural settings.

This study employed a multiple-case research design. A case study is a detailed investigation of individuals, groups, institutions or any other social units, whereby a researcher attempts to analyse the variables relevant to the subjects under study (Creswell, 2013).

3.2 Area of Study
The study was conducted at two higher learning institutions: the University of Dar es Salaam and the University of Dodoma; henceforth Institution A and Institution B, respectively. The choice of these two higher learning institutions was based on the fact that they are the two most populous public universities with many cases of students with disability, including SVI (MoEVT, 2012).

3.3 Sample Size and Sampling Procedure
A total of 40 participants were involved in this study, out of whom 18 were SVI who were totally blind: of whom 10 were from Institution A; and 8 from Institution B. Also, the sample included 12 students with low vision comprising of 6 from each institution. Others were 6 lecturers teaching inclusive classrooms involving 3 from each selected institution; 2 heads of special needs unit constituting 1 from each institution; and 2 coordinators of special needs units comprising 1 from each selected institution.

During the selection of participants, two non-probability sampling procedures were used. Purposive sampling was used to select 6 lecturers (3 from each institution), 2 heads of special education needs unit (1 from each institution), and 2 coordinators of special education needs (1 from each institution). Lecturers were purposefully selected depending on their experiences of teaching SVI in inclusive classes. On the other hand, the heads of the units of special education needs were

purposively selected based on the position they held in providing services to students with special needs. The coordinators of special education needs were chosen based on the assumption that they possessed adequate competence in the provision of special education needs.

Stratified purposeful sampling was used to select 30 SVI, involving 16 from Institution A (10 totally blind and 6 with low vision); and 14 from Institution B (8 totally blind and 6 with low vision) based on gender and year of study. First, in each sample, students were categorized into first year, second year and third year. Secondly, from each sub-category, 2 students (a male and a female) were selected to make a total of 12 students with low vision, who were involved in the focus group discussions of the study. Thirdly, students who were totally blind were selected to be involved in the in-depth interviews from each institution. The use of a stratified purposeful sampling procedure allowed the researcher to avoid gender bias and ensure representativeness of all the sub-categories of SVI.

3.4 Instruments of Data Collection

Two data collection methods were used for this study: semi-structured interviews, and focus group discussions (FGDs). Semi-structured interviews were employed to collect data from students who were totally blind, lecturers, heads of special education needs unit, as well as coordinators of special education needs. In this study, FGDs were used to collect in-depth information from SVI who were having low vision. The researcher conducted and facilitated conversation with a group of 6 students with low vision from each institution, who were purposefully selected.

4. Results and Discussion

4.1 Demographic Characteristics of Respondents

The data obtained from the interview guide and focus group discussion was systematically analysed according to the respondents' demographic characteristics as summarized in Table 1.

Table 1: Distributions of Respondents

| Respondent Categories | Higher Learning Institutions | | | | Total |
| | University A | | University B | | |
	Male	Female	Male	Female	
SVI (Totally Blind)	6	4	5	3	18
SVI (Low Vision)	3	3	3	3	12
Lecturers	2	1	1	2	06
Coordinators of Special Needs Unit	0	1	1	0	02
Heads of Special Needs Unit	1	0	1	0	02
Total	**12**	**09**	**11**	**8**	**40**

Source: Field Data (2021)

4.2 Lecturers' Ability to Identify the Unique Learning Needs of SVI

The majority of the SVI reported that lecturers were not aware of their unique learning needs that would impact the teaching and learning process. This made it difficult to cope with the learning environment. For example, lecturers were not aware of the relevant format of reading materials for SVI. One FGD participants with low vision had the following to say:

> *Some lecturers do not even remember that there are SVI who are totally blind, while other students have low vision in their classes, in order to support them in the teaching and learning process. Some lecturers use a projector and are very fast while teaching, without giving consideration to students who need special attention* (FGD with Students with VI, HLI A, 2021).

As the study found out, lecturers were unable to identify the unique learning needs of SVI in inclusive lecture halls due to the lack of professional competence in that aspect. These findings corroborate those reported by Mbalamula (2017), which revealed that despite the increase in enrolment of students with special needs in different higher learning institutions in Africa, there is no evidence that regular lecturers have been trained to accommodate such SVI in inclusive classrooms. Zhang et al. (2018) also admit that university lecturers in China lack understanding of the special learning needs of students with disability. In this sense, lecturers in higher learning institutions, the world over, should be required to develop appropriate professional competences that would enable them accommodate SVI in inclusive settings.

Furthermore, some of the more responsible lecturers consider only students who are totally blind, to whom they give soft copies of materials to be transcribed to braille, to enable the students follow classes. One lecturer admitted as follows:

> *I usually support students who are totally visually impaired by giving them soft copy materials after each lesson, so that they could take those learning materials to the special education needs office to be transcribed into a format that they can read and understand* (Interview with lecturer, HLI A, 2021).

Furthermore, the findings showed that while some lecturers were aware of proper audio information during teaching and learning in inclusive classrooms, others were not. This situation is problematic to SVI since those with total blindness mostly depend on the audio sense in learning. A student from University A had the following complaint:

> *Recordings are sometimes not clear because some lecturers use low voices and there are no microphones in the classrooms. Some of the few available microphones do not work properly. Some classes have electric celling fans that produce noise during teaching and learning, therefore, this situation disturbs proper recording and hearing* (Interview with VI student, HLI A, 2021).

Generally, it was reported that, during the teaching and learning process to SVI, writings on the board and projections of slides in various classes were not modified to suit SVI, particularly those with low vision. Correspondingly, a

study by Mokiwa (2015) indicates that most regular lecturers have poor capability in dealing with inclusive education. This acts as a stumbling block for such students to learn effectively and excel in their academic performance.

The findings further testified that there was poor consideration of the seating arrangement for SVI in large classes in both higher learning institutions. Although it was observed that students with VI sat in front rows, some of the students with low vision claimed that they did not see what was being written on the board because of large classes, as well as of other challenges. Unfortunately, there were some students who were not visually impaired but who denied SVI the opportunity to occupy front rows.

Molina et al. (2016) also reports about students complaining about responsible authorities not cautioning lecturers regarding the presence of students with disability in their courses/classes, as well as equipping them with the appropriate knowledge about inclusive teaching and learning. Hence, to make inclusive teaching and learning effective, lecturers must be aware of the presence of such students in their classes, and identify their unique leaning needs. This will enable lecturers employ appropriate teaching and learning approaches and equipment according to the needs of each particular student.

4.3 Teaching Methods to Facilitate Inclusive Learning

Based on the findings, most lecturers in higher learning institutions employ the lecturing method as the main teaching approach in university inclusive classes. As mentioned earlier, this approach does not accommodate SVI. It was noted that during seminar presentations there were modifications of lessons; and in small classes, there were interactive lecturing methods, discussions, as well as questions and answers that were used to accommodate SVI in the teaching and learning process. One SVI from Institution B revealed his/her preference, thus:

> *I am happier to attend seminars than lectures because in seminars we discuss topics through questions and answers, then we receive comments. To me, this approach is very helpful* (Interview with VI student, HLI B, 2021).

This observation was supported by one lecturer who gave the following comment:

> *Frankly speaking, in small classes or seminar presentations, I combine different methods such as lecturing, discussion, role-play, and questions and answers that provide room for students to discuss, present, and give comments which lead them to learn more efficiently* (Interview with lecturer, HLI A, 2021).

Moreover, the study found out that, although interactive lecturing, group discussions, as well as questions and answers were useful methods, they were rarely or not employed at all by all lecturers during teaching. Although there were challenges in large classes, these methodological approaches have been documented to be effective in inclusive classrooms having SVI. URT (2015)

advises that provision of inclusive education to SVI depends on the use of appropriate teaching methods and approaches employed by lecturers, instructors or teachers in the classroom. In that regard, small group discussions, interactive lecturing, focus group discussions, debates, buzz group discussions, questions and answers and team teaching have been proved to be the most effective teaching approaches in inclusive surroundings.

Students with visual impairment require different teaching methods and approaches modified to suit their impairment in an inclusive lecture hall. Haug (2016) emphasizes that lecturers are expected to have enough skills in terms of teaching methods and approaches in teaching SVI in inclusive classes. In Ethiopia, Gebretuton (2015) found that lecturers across different departments in higher learning institutions were unable to adjust their instruction based on students with impairment, including those with visual and hearing impairment, due to the lack of enough competence required for teaching students with and without visual impairment in inclusive classes. The study further revealed that lecturers tended to be prescriptive in teaching because they normally employed the lecture method, and later gave lecture notes to students. Definitely, this approach is not supportive to students with varied forms of impairment.

Commenting on the teaching approach employed by lecturers, one student gave the following comment:

> *In the real sense, most of us prefer to get reading materials prior to any lesson/topic taught, because it gives an insight into new terminologies and names. Not only that, but also any lesson related to mathematics needs prior information. This notwithstanding, most lecturers provide hand-outs in hard copies several days after the lesson or module has been completed, and not during the teaching and learning time* (Interview with VI student, HLI A, 2021).

For effective teaching and learning of SVI to take place, different types of materials and facilities are needed. For example, according to URT (2015), SVI require tactile print (braille), auditory senses, audio tapes, printed materials (such as books) with large fonts, and magnifying devices for their learning. Other materials include special needs classes, lecture guides as well as training videos for inclusive classes. These materials have been regarded as highly beneficial in improving teaching and learning, and developing skills to SVI; and also giving confidence to regular classroom lecturers (URT, 2015). Therefore, during planning for teaching and learning, lecturers must take into consideration the application of appropriate materials and facilities for SVI. Yosiah (2011) has established that in many inclusive learning institutions in Tanzania—including higher learning institutions—materials and specialised equipment required for learning by SVI are inadequate and inaccessible. Thus, university lecturers are urged to be able to adopt appropriate teaching approaches that have the potential to offset this challenge, and enable smooth learning and excellence in academic performance for SVI. Willings (2016) suggests that even for information presented on the board, it should be enlarged

and in appropriate colour contrasts, such as using white chalk on green or black boards. Also, students should also be allowed to use optical devices to access information at near and distant locations.

5. Challenges Encountered by Lecturers in Facilitating Inclusive Learning
5.1 Lack of Competence by Lecturers
The study found that lecturers' lack of competence to accommodate SVI in the 'normal' classes was the leading academic challenge in higher learning institutions. The findings revealed that most lecturers in higher learning institutions lack competence in how to support this type of students in inclusive teaching and learning. Also, lecturers lack knowledge of students' unique learning needs. One lecturer acknowledged this, thus:

> *We lack skills such as using braille; on the other hand, we lack teaching materials because we do not know exactly what materials SVI need when teaching in an inclusive class* (Interview with Lecturer, HLI B, 2021).

Additionally, the findings indicate that, in some cases, lecturers are not even aware of the presence of SVI in their classes. The coordinator of a special needs unit in University A gave the following comment:

> *Most lecturers complained that they were not prepared to handle students with special education needs, including SVI; and because of that they were not aware of SVI or others with special education needs in their classes. They 'discover' them only when they find them sitting in the front rows; or sometimes when somebody else informs them* (Interview with Coordinator of special needs unit, HLI A, 2021).

5.2 Inadequate Physical and Human Resources
According to the findings, it was revealed that large classes were also a barrier to handling SVI in inclusive classes during the teaching and learning process. Such a phenomenon resulted in poor classroom management and cooperation between lecturers and students. One concerned lecturer admitted as follows:

> *The set-up of our classes, for example, is not meant to accommodate students with special needs like visual impairment. For example, one of my classes has 1,500 students, including those with visual impairment! How can one manage them in this case? It is like the classes have been set for students who are normal. Therefore, it is easy to forget those with visual impairment* (Interview with Lecturer, HLI A, 2021).

It was found that there were inadequate teaching and learning equipment and shortage of teaching and support staff in both higher learning institutions. It was observed that there was lack of electronic note takers, video magnifiers, laptops, and embossers; and also inadequate staff in the special units who provide academic support services to SVI. This finding imply that the available equipment and academic support and service staff could not handle big numbers of students with special needs. The finding supported Sarkar (2016),

who affirmed that inadequate funding adversely affects training facilities, resources and effective special needs curriculum, content-specific teaching and learning materials, and advanced technology integration: hence most scholars, professors and instructors find it difficult to assist students with disability in academic and social aspects in higher education.

5.3 Poor Infrastructure

The findings show that poor infrastructure led to environmental inaccessibility within higher learning institutions, as one of the students with visual impairment testified:

> *The pathways to lecture rooms and library are not user-friendly because some have staircases. This situation prevents us from attending classes whenever it happens that our guides are not available to assist* (Interview with VI Student, HLI A, 2021).

The findings concur with Rushahu (2017), who was rather concerned that students with disability continue to encounter physical barriers to educational services, such as the lack of ramps; lack of elevators in storey buildings; heavy doors; inaccessible washrooms, classes and seminar rooms; and transportation.

5.4 Poor Teaching Strategies

Teaching methods and teaching equipment can be customized to suit SVI, for example, by the magnification of text, and employing step-by-step explanation when using a projector or any visual teaching aid. Some SVI were unable to cope with the fast speed of some lecturers when teaching. One student was quoted saying:

> *Sometimes when lecturers want to finish their modules, they teach at a very high speed, and some of them speak in low voices. This situation constrains my understanding of the lesson* (Interview with VI Student, HLI B, 2021).

5.5 Improper Use of Modern Technology Devices

Findings show that most of the SVI lacked proper understanding of the use of modern assistive technological devices such as laptops, computers, voice recorders and electronic note-takers during teaching and learning. One student in University B testified this:

> *To me it is a problem to use a computer for recording, and sometimes when I use a recorder, I find that I have recorded nothing and it takes very long to get used to the machine without assistance* (Interview with VI Student, HLI B 2021).

As mentioned earlier, the most serious problems for SVI were found to be poor access to educational materials such as electronic materials, audio recording, braille, and enlarged print hardcopy documents. It was noted that without proper planning and budgeting, these educational materials would create additional barriers to SVI. One student with visual impairment admitted that it was difficult

for them to access educational materials to support their learning through online or library materials. The student complained further that when they needed materials from the library, no library was prepared to handle issues of SVI.

5.6 Negative Perception towards Student with Visual Impairment

Stigmatization was reported to be another challenge in inclusive classrooms, whereby SVI were regarded as less able. One head of a special needs unit noted:

> *Most of the lecturers think that SVIs are not capable of handling their studies efficiently; they think that SVI only need support to finish their studies, for most of them are incompetent* (Interview with Head of special need unit, HLI A, 2021).

Similar findings have reported that attitudinal barriers have the greatest impact on learning and academic achievement (Moswela & Mukhopadhyay, 2011). Due to negative perception, it seems lecturers feel that curricular adaptations of any kind are a form of favouritism to students with disability. Moswela and Mukhopadhyay (2011) conclude that students with disability face additional barriers and more challenges than the rest of the student body. Such barriers may be structural, organizational, behavioural and attitudinal.

5.7 Examinations

It was reported that during examinations, SVI are required to use computers in writing their examinations. This situation becomes challenging to students who do not have computer skills, and hence may result in low performances. This finding has been supported by one SVI who gave the following claim:

> *For the first time it was difficult for me to use a computer because, for many years, I was using a braille machine/typewriter, and I did not have computer skills. Notwithstanding this fact, I had to do the exams with a computer. It was a very excruciating challenge to me* (Interview with VI Student, HLI A 2021).

In addressing this challenge, it is sometimes necessary to administer oral examination to SVI so that students respond orally to questions. Alternatively, lecturers might read the questions out loud and students would type them. They could then respond later using a computer, braille machine, or typewriter.

6. Conclusion and Recommendations

From the research findings, it can be concluded that most lecturers in higher institutions of learning are not aware of the unique learning needs of SVI in inclusive classrooms, partly because they have not been trained effectively to deal with such a situation. Moreover, in most cases, lecturers use lecturing as a teaching approach, which is considered inappropriate to SVI because most use it without modification to suit this group of students. Furthermore, the teaching and learning equipment used by lecturers are not customized to accommodate SVI in the teaching and learning process.

In addition, lecturers encounter various challenges during teaching and learning of SVI in inclusive classes. Generally, to handle these barriers, there is a need to create awareness among university lecturers and students on issues concerning students with special needs, and specifically those with visual impairment and their learning needs to reduce stigmatization, discrimination and negative perception towards them. In addition, appropriate and adequate teaching and learning equipment that is necessary to accommodate inclusive learning to SVI in the teaching and learning process should be made available.

Moreover, the study recommends that the government and higher learning institutions need to consider revising its budget to favour inclusive education in higher learning institutions. Also, lecturers and other service providers should be provided with capacity building training on how to identify and accommodate SVI and their specific learning needs in inclusive settings. Finally, university curricula should be reviewed and adjusted to give special favours to students with special needs.

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