

'Inclusion' through professional 'exclusion': A phenomenon of pre-service visually impaired teachers in tertiary institutions

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ABSTRACT

The number of visually impaired students enrolled in higher education institutions is on the rise, and yet, teaching, learning and assessment remain an area of particular concern to their inclusion. In Zimbabwe, the curriculum for higher education institutions has been crafted to offer equal access, and relevance, to all students but, it seems there is considerable confusion where administrators and lecturers in teacher-training feel unprepared, and unequipped to have visually impaired students in an inclusive class. Resultantly, pre-service visually impaired trainee teachers seem to be systematically left raw in teacher professional standards development. This qualitative study, therefore, explores the experiences of visually impaired pre-service trainee teachers in Zimbabwe teacher training institutions. Multiple case study designs were adopted to facilitate data triangulation. A sample of 30 participants comprising administrators, lecturers and visually impaired pre-service trainee teachers was purposively drawn from inclusive teacher training institutions. Data was generated through semi-structured interviews, and document analysis. It emerged from the study that, the instructional approaches used to convey the content, the curricular materials and assessment mechanism were esoteric and visually impaired pre-service trainee teachers were not professionally equipped with teacher professional standards. It is recommended that tertiary institution administrators, and lecturers must continuously be trained in inclusive education practices so as to equip them with the requisite skills and knowledge to meet the diverse professional standard needs and interests of the visually impaired pre-service trainee teachers.

KEYWORDS

inclusive education, professional, standards, visual impairment

1. Introduction

Most visually impaired students are now attracted to the inclusive education. The concept was implemented in western countries in the 1980s (UNICEF, 2020; UN, 2020), and has become an issue on the global agenda. Article 24 of the United Nations Convention on the Rights of Persons with Disability (UNCRPD) adopted in 2006, protects the right to education of persons with visual impairment. It compels all state parties to take appropriate measures to ensure such individuals access and participate in inclusive education as equals through various support services.

Attending tertiary education is regarded as a form of cultural capital, hence, professional knowledge and skills can in turn be exchanged for economic capital. Studies on inclusive education of visual impaired pre-service trainee students reveals that generally, lecturers at teacher training colleges are not well versed with methodologies that support them (Kendall, 2016; Mahanya, 2019). The World Health Organisation (WHO) (2020) asserts that visually impaired students face greater inequalities in accessing education as result of selective guidelines and protocols that magnify their discrimination. It is prudent to note how visual impaired trainee teachers professionally benefit from inclusive teacher training education. This study also establishes lecturers' experiences in teaching them.

2. Background

The 1980s, witnessed a huge expansion of higher education in Zimbabwe premised, among other reasons, on a rapid increase in the number of students enrolments including those living with disabilities. Most enrolled in the higher education institutions, acerbated by the establishment of new universities and colleges following the country's independence from colonial rule (Altabach, Reisberg & Rumbley, 2009). In this regard, the World Bank (2016: 58) reported that:

...many higher education institutions operate with overcrowded and deteriorating physical facilities, limited and obsolete library resources, insufficient equipment and instructional materials, outdated curricula, unqualified teaching staff and an absence of academic rigor and systematic evaluation of performance.

Gebrehiwot (2015) reports that Africa has had the highest average regional growth rate that reached 10% in the years 2000-2005. However, these developments have serious implications for the quality of education in general, and the provisions for students living with disabilities in particular. As a result of such huge expansion of student enrolment, the resources available to support learning, and teaching, considerably decreased in the last quarter century. In addition, the average qualification levels of instructors also declined. According to Crosling (2009), the quality of students' learning experiences, student retention and success are becoming increasingly challenging issues with increase in the diversity of the population. These claims, contain the argument that, traditional modes of teaching and learning may not be as effective now as they were in previous times when the student population was more homogenous. In light of this viewpoint, in order to address the students' diversity, "the methods of teaching and learning should be designed to be more relevant to students' needs, interests, and previous experiences" (Gebrehiwot, 2015 p.27). Accordingly, the use of more active learning strategies is recommended as a successful approach to address diversity. What is required is the awareness, and commitment of the developing institutions and their staff.

3. Challenges encountered by the visually impaired pre-service student teachers

Globally, inclusive education has become a dominant force in the international discourse of education. Laws and policies had been put in place to support implementation of inclusive education (United Nations, 2008). Unlike in most African, and Asian countries, European Teacher Training Institutions provide trainee teachers with some form of compulsory training in inclusive education during the initial teacher training (Disabled Persons International, 2020). In Zimbabwe, the current education given by teacher training institutions is often too general, vague and insufficient, with limited practical experience, and may not meet the professional needs of visually impaired trainee teachers (Mahanya, 2019). This means that pre-service students in such training institutions may not be equipped with requisite professional standard skills.

Most African countries are following international trends in tertiary inclusive education (Badza & Tafangombe, 2010). The South Africa's White Paper Number 6 of 2001 outlines, and accepts the responsibility to provide a supportive environment for

the visually impaired students in teacher training institutions. The Nigerian teacher training institutions mainstreams student teachers living with disabilities (The United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2020). In Uganda, inclusive education relies on a relatively small number of teacher training institutions, which are being equipped with the resources to enrol students with special educational needs (Uganda National Institute of Special Education [UNISE], 2016). In Zimbabwe, the Nziramasanga Report (1999), Chapter 11.1.4 says, “there are some *ad hoc* programmes for people with disabilities in teacher training.” The report unravels that, access to tertiary, and teacher training institutions is also limited for people living with disabilities, hence, training is rudimentary.

Observably, there is no appropriate equipment and material for use by the visually impaired students in most teacher training institutions, and they have to rely on borrowing materials and equipment from special schools (Munemo & Bekele, 2020; Mahanya & Chabaya, 2016). Most teacher training institutions have been failing the visually impaired students by denying them access to appropriate facilities (Khochen-Bagshaw, 2020). Most teacher training institutions have no appropriate facilities and they lack both human and material resources (Kendal, 2016). Furthermore, infrastructural adaptations in most teacher training institutions are a cause of concern to visually impaired pre-service trainee teachers.

Chapter 10.1.1 of the Nziramasanga Report (1999) highlights that, students living with disabilities’ drop outs is caused by the institutions’ systems. The American Foundation for the Blind (2020) opines that inclusive education is widely practiced in developing countries with few resources to support it. The National Blind Council Society (NBCS) (2018) found that the scenario in Zimbabwe was that, visually impaired students in teacher training were not provided with necessary support services. Most administrators and lecturers in most inclusive teacher training institutions in Zimbabwe are not well versed with orthopedagogics and orthodidactics and the mechanics to handle visual impaired trainee students (NBCS, 2008).

Orthopedagogics and orthodidactics are regarded as the art and science of teaching a specific group of individuals according to their needs and interest (International Bureau of Education, 2017). Similarly, Mahanya, (2019) establishes that lecturers lack adequate knowledge, skills and training for effective implementation of inclusive tertiary education. This implies that visual impaired trainee students in inclusive training institutions are taught using the ‘one-pedagogy-catering-for-all-strategy,’ basically the lecture-method, which may be a challenge to such students where resources are inadequate.

Technology has great potential in providing access for all learners and the ability to access the general curriculum. The challenges visually impaired students face in their learning environment due to their condition can be minimised with the help of assistive technologies (United Nations International Children’s Emergency Fund [UNICEF], 2020). Assistive technology (AT) should not be viewed by educators within a ‘rehabilitative’ or ‘remediative’ context, but as a tool for accessing the curriculum and exploring out means to help students with disabilities achieve positive outcomes (Podzo & Chipika, 2019). Additionally, Podzo and Chipika (2019) express that assistive technology has the potential to augment abilities and bypass or compensate for barriers that disabilities create. Consideration of AT is, therefore, required for the visually impaired students so that they have the necessary tools to fully access and participate in the curriculum with the greatest possible level of independence (WHO, 2020).

Thus, it is essential that, as far as capacity and resources allow, institutions should provide necessary assistive technologies to students with visual impairments just as they do for other students. The most traditional technology most visually impaired students use for learning purposes is Braille. The use of Braille has been met with some challenges such as lack of or little material in Braille; lack of Braille skills to both some students who may acquire the impairment at a later stage in life and instructors (Gebrehiwot, 2015).

A computer is one of the AT which is of great importance to both the physically challenged, and the rest of the students. However, studies carried out reveal that students with visual impairment face the following challenges; disproportionate number of computers with the relevant software like JAWS (Kendall, 2016), Limited internet access (UNESCO, 2020), malpractice by non-disabled students who sometimes delete

JAWS since all students share the same computers at times due to lack of facilities and unavailability of specialist to fix the computers when they develop a problem or they were attacked by a virus (Podzo & Dzviti, 2017; Gebrehiwot, 2015).

Poverty is a major contributory factor that leads to disability, while disability traps people into poverty (UNICEF, 2020). It is worth pointing out that assistive technologies are very expensive and are out of reach for many learners living with disabilities (Podzo & Dzviti, 2017). All these challenges can be minimised by enacting, and enforcing relevant legislation and policies, government subsidies as well as removing import duty on assistive technology (Disabled Persons International, 2020). Students living with disabilities should be equipped with the relevant skills through training as well.

4. Technological support needed by students with visual impairment in tertiary institutions

Tugli (2013) suggests the following new technologies and software options that Higher Education Institutions (HEIs) can acquire to enhance access to learning and assessment by students with disabilities (SwDs);

- Text –to-speech devices/ Voice input
- Digital white board
- Print enlargers and document converters
- Scribe pen
- Visual/ graphic outliners
- Visual tracking
- Phonetic spell checkers

Ebersold's (2012) study is a comparative analysis of results of a survey conducted in 2006/07 in four countries, namely Denmark, Czech Republic, France and Norway. The results indicate that although 63% of the respondents said their access to tertiary education was very easy, support for their needs was not assured as universities and colleges mostly address physical accessibility and focus less on pedagogical, assessment, psychological and social accessibility. For these learners, besides having to cope with the trauma of a disability which might be mild, moderate, severe or profound, they also face challenges in terms of gaining wider access to issues pertaining to the curriculum, teaching, learning, assessment and progression in the higher education institutions (HEIs) (Tugli, 2013).

If visually impaired students in higher education institutions are to enjoy equal opportunities, and participate fully in the teaching, learning and assessment process as their non-disabled counterparts, issues of access and equity need to be addressed (Podzo and Chipika, 2019). Makanya (2015) argue that alternative curricular materials, pedagogical and inclusive assessment practices are necessary to meet the needs of SwDs. Important among many other considerations, certain adaptations and modifications have to be made to the assessment of SwDs and thus calling for culture change.

Some educationists argue that trainee students with visual impairments' pedagogies are not distinct and result in deterministic thinking and exclusionary practices (Ravet, 2011). The practices by educators in inclusive teacher training classes can result in rather narrow and fixed teaching methodologies, and pedagogies that exclude the visually impaired students (Florian, 2007). Therefore, knowledge and understanding of visual impairment is critical in enabling lecturers to understand relevant orthopedagogics and orthodidactics in inclusive education of students with visual impairment(s). Thus, understanding of visual impairment leads to proper ways of teaching students in inclusive educational set ups. Ravet (2011) found that, without knowledge and understanding of visual impairment, teachers may, often use subtle ways in which their practice may be directly limiting trainee students with visual impairment. Batten and Daly (2006) argue that, what necessitates the implementation of methodologies and pedagogies are the mismatch between the general teacher training education (objectives, curriculum and outcomes) and the needs of trainee visually impaired students. The prevailing situation in most inclusive teacher training

settings in Zimbabwe show discrepancies between trainee students with visual impairments' needs and lecturers' pedagogical methods. This discrepancy has a bearing on professional achievement of students living with visual impairments in inclusive teacher training educational settings. Anderson (2004) asserts that students with visual impairment learn according to what they do and not according to what their lecturer and sighted students do.

In a similar note, NBCS (2008) notes that lecturers and sighted students, neither can make students with visual impairment pay attention, nor can they construct meaning to them. A study by Gebrehiwot (2015) established that instructors made little effort to make adjustments in the andragogy they use to provide students with visual impairment (SVI) with equal access to the curriculum. According to Gebrehiwot (2015 p.222) the following are some of the practices of instructors that caused the majority of SVI to have negative curriculum experiences:

- Some instructors wrote on the board or used indicative words referring to what they had written without reading out what was on the board or making the reference clearly understandable to all students.
- Some instructors paced their lectures faster than SVI can follow.
- Some instructors spoke too quietly for SVI to hear and record
- Non-involvement of SVI in class activities.

Recognising the critical role that inclusive education teachers' attitudes and perspectives play in the inclusive classrooms, teacher preparation programmes need to direct more attention at developing positive attitudes towards disability early in their professional development. Teachers with more positive attitudes toward inclusion have more confidence in their abilities to teach children with disabilities, and are more willing to accommodate children's needs. From a different angle, teacher's negative attitudes, dispositions, and beliefs, may be obstacles to creating effective and developmentally appropriate inclusion practices. Thus, tertiary institutions should ensure the provision of universal services which include positive attitudes, and inclusive educational systems to students with disabilities. It is against this background that the researchers investigated the extent to which pre-service visually impaired students can properly and professionally benefit from the current inclusive teacher training settings in Zimbabwe.

5. Theoretical Framework

The research was guided by social-cognitive theory of learning by Albert Bandura. The theory focuses on personality development as it is shaped by reciprocal determinism and self-efficacy. This theory places great emphasis on the social-cognitive events that take place in the individual's environment. Witt and Booyen (1995 in Norwich, 2007) confirm that each human being, regardless of a disability, is endowed with versatile potential. Orthopedagogics and orthodidactics are regarded as potentially powerful tools in the development of multiple behaviours, and personality traits. International Bureau of Education (IBE) (2007) posits that the philosophy of inclusive education is rooted in the socio-cognitive principle that humans have equal value. This transcends to ultimate human dignity. The assumption is that everyone has the right to be included in regular services. In this regard, a regular class with relevant andragogy to buttress academic achievement. In tandem, Hameed (2002) heralds that inclusive education calls for equalisation of opportunities in all facets of life. The reason for this is that, students with visual impairments need also to be treated professionally as equals in their learning.

6. Methodology

The research approach for this study is qualitative. This approach is in line with the beliefs of the interpretivists. It relies heavily on naturalistic methods (Cohen & Crabtree, 2006) and focuses on exploring and understanding meanings that individuals or groups attach to a social or human phenomenon without any interference or manipulation (Yin,

2009). The key assumption of qualitative research is that reality is constructed by individuals interacting with their social worlds, and the key concern is to understand the phenomenon of interest from the participant's perspectives not the researcher's (Creswell, 2014). It also ensures adequate dialogue between the researcher and those with whom they interact with in order to collaboratively construct a meaningful reality (Cohen & Crabtree, 2006).

A multiple case study design was used and according to Yin (2009), multiple case study design permits triangulation of findings. It gives room for the use of multi-sources of data collection, an important element for enhancing the quality of research data. In addition, the multiple case study design facilitated comparison of data collected at different sites, an element which is difficult to attain when using a single case design (Yin, 2009). The population for this study comprised of administrators, staff and students in three Teachers' Colleges. Administrators of these institutions formed part of the research population as they were required to give information on how they cater for visually impaired students in their planning and management of the institutions.

Purposive sampling was employed to come up with the actual number of participants. According to Linchtman (2006), a sample is a limited subset of the entire population. In a similar note, Muchengetwa and Chakuchichi (2010) assert that, the lesser the number of participants the easier it becomes to manage.

Purposive sampling is a non-probability sampling technique which provides a typical group of individuals with a particular life experience, and the researcher selected information-rich cases for in-depth study (Leedy & Ormrod, 2005; Patton, 2001). Therefore, for this study, the sample comprised of all six visually impaired students in the three Teachers' Colleges, 21 lecturers and three vice principals who were directly involved in the teaching and learning issues in the colleges. Semi-structured interviews were used to collect data from vice principals, and the visually impaired students while a questionnaire with both open and close-ended questions were used to collect data from the lecturers.

7. Results and Discussion

The participants' responses were coded to facilitate easy categorisation and presentation of data. In the responses, administrators' responses were coded as (A), Lecturers' as (L) while visually impaired students as (S). These codes were used in vignettes and narrative texts below.

Teachers' College staff's knowledge and skills to cater for visually impaired students

The Teachers' College staff included vice principals and the lecturing staff who were teaching courses being taken by visually impaired students with visual impairment. Results showed that the participants were not well versed with knowledge, skills and special andragogy used in special needs. This was indicated in responses such as the following:

L: I feel extremely inadequate as I am not well versed with the current knowledge, and special methods that need to be employed in inclusive classes so as to make students with visual impairment benefit from inclusive learning.

A: Although the lecturers who teach inclusive classes are specialists, they need to be trained in current andragogy that cater for all the students, those with visual impairments and those without.

S: I think most of our lecturers need to go back to the training centre to be equipped with the knowledge and styles that benefit us as students with visual impairment who are educationally included at this college.

The above responses show that lecturers were not well versed with the needs and interests of visually impaired students in their classes. The implication is that, lecturers resort to using ordinary traditional lecturing methods. Traditional methods of teaching and learning do not adequately cater for needs of visually impaired students' cognitive disposition, and the skills to be acquired.

Realisation of the need for professional development

In their responses, participants, including the students, pointed out the need for professional development of staff in orthodidactics and orthopedagogics in inclusive education to meet the educational needs of visually impaired students. The participants had this to say:

S: Our lecturers teach us in passing.

L: Pedagogies used by most of us do not adequately challenge stigma and discrimination surrounding visual impairment. Which methods do I need to employ in an inclusive class with students with visual impairment?

L: It is now more than twenty years since I left training. Some of these newly introduced methods in inclusive education are out of my touch. To make matters worse, when the methods are introduced, there are no workshops at this institution to open up our minds.

S: It seems these lecturers have negative attitudes and seem not to be aware of other teaching approaches. They forget that we are also here. They come here just to lecture and leave.

The responses from all groups of participants point to the need for academic development workshops. Perhaps that will probably assist administrative and academic staff to realize the need to modify and adapt the environment so that so that it becomes conducive for students with visual impairment. Thus, on-going training on pedagogies for staff can have a direct impact on academic achievement of the visually impaired students in inclusive teacher training education. Case studies from Kenya, Botswana, United Kingdom (UK) and Pakistan have provided evidence that on-going professional development throughout a career contributes significantly to student with disabilities` professional standards achievement (UNESCO, 2013).

Lack of teaching resources for the visually impaired students with visual impairment.

The participants noted lack of resource provision by both administrators and lecturers in inclusive teacher training institutions as one of the factors impeding effective inclusive teacher education training. They had the following to say:

L: A teaching method is selected because of availability of resources to use. It is difficult to think of an appropriate method where resources are not there.

S: The lecturers who teach us complain of resources and do not teach us as individuals with special needs.

L: After being appointed to the lectureship post, there were no resources to pedagogically accompany my expertise.

The implication is that administrators of inclusive education institutions need to have some training on needs of specialist education. This may open up initiatives for further training of specialist lecturers who teach inclusive classes with students with visual impairment in inclusive tertiary educational settings. Quality inclusive learning requires attention to be paid to the relationships between the use of new technologies and the nature of the learner, and approaches to teaching and assessment (Ravet, 2011).

Unsuitable teaching methods and lack of assistive technology

The participants were of the opinion that lack of resources affected their choice of andragogy to be employed when teaching inclusive classes that include visually impaired students. Their responses reflected that:

L: Institutions lack appropriate, and adequate AT to enhance the choice of a method to be used in an inclusive class of students with visual impairments. I have learnt that the visually impaired students in some countries study science subjects like chemistry.

L: We are just fulfilling the demands of inclusive education. How can I plan individualised andragogy for a university class?

S: We are in trouble. These lecturers sometimes demonstrate on chalkboards, and I benefit completely nothing in terms of those demonstrations.

L: ICT is an important aspect in the teaching and selection of a method to employ when teaching the visually impaired students in inclusive classes, but we are still behind in terms of e-learning at this institution.

Lack of resources, and skills, limit lecturers' choices of teaching and learning methods, and this negatively affect students' learning especially in an 'inclusive' setting. This research established that visually impaired students and lecturers' use of computers was limited due to lack of totally disproportionate number of computers with appropriate software, and also lack of computer skills. This resulted in poor transmission and dissemination of content to the visually impaired students. In addition, it has led to the compromise of academic achievement of students with visual impairment in inclusive settings.

The research findings evidently show that orthopedagogics and orthodidactics receive scanty attention because most lecturers, and administrators, are not well versed with methodologies in special needs education (Gebrehiwot, 2015; Peters & True, 2008). The findings of the study showed that lecturers, and administrators, have very scanty knowledge, and skills, to cater for the visually impaired students in their institutions. In a similar note, Lewis (2008) found out that instructors in educational settings were not aware of the learning content needs in inclusive education. Ravet (2011) found out that, without knowledge, skills and understanding of visual impairment, lecturers may often use subtle ways in which their practices may be directly limiting in addressing various students' needs in teaching and learning.

Similarly, Mushoriwa (2007) also noted that knowledge, and understanding, of visual impairment is crucial in enabling lecturers to understand relevant orthopedagogics and orthodidactics in inclusive education of the visually impaired students. Andragogy in inclusive educational settings consists of knowledge, beliefs, and skills related to lecturing of students with visual impairment. It also includes knowledge, and beliefs, of learning and students; knowledge of principles of instruction such as individualised and direct instruction (Batten & Daly, 2006). It encompasses specialist knowledge, and skills, related to inclusive class management, knowledge and beliefs about the aims, and purposes of inclusive education (Mafa, 2012).

Andragogy in special needs education is on content perspective, which is based on the breadth and depth of the subject matter (Florian, 2007). It is of paramount importance for an inclusive tertiary education specialist lecturer to have knowledge on the strategies which can be employed in inclusive education of the visually impaired students with visual impairment. Thus, having a flexible, thoughtful conceptual understanding of inclusive education pedagogies is critical to effective lecturing in inclusive classes, especially in an inclusive class with visually impaired students. Lack of these lead to difficulties in acquiring all the academic skills, behaviours, knowledge, values, and norms, which are considered worthy in the teaching profession by visually impaired pre-service teachers.

The task of the specialist lecturer is, therefore, to transform the content in ways that make it accessible to individual students with visual impairment without compromising its academic rigour, and integrity. The sentiments echoed by the participants proved beyond any reasonable doubt the need for curriculum modification so as to enhance access and participation by pre-service visually impaired teachers in tertiary education.

The research findings, therefore, show that the inclusive teacher training andragogy employed when teaching an inclusive class with visually impaired students are not common to all. Most college lecturers are not acquainted with relevant andragogy to employ when teaching an inclusive class with students with visual impairment. Similarly, Norwich's (2008) study found that most mainstream inclusive teachers use the 'one size fits all' andragogy when teaching inclusive classes. It has been found that the andragogy used by inclusive tertiary education lecturers do not address the academic needs of students with visual impairment in inclusive tertiary education.

The findings of this study further show overwhelming evidence that visually impaired students in inclusive teacher training institutions experience isolation, stresses, frustration, and confusion, during their learning processes and resultantly, the students

fail to fully meet their social, emotional and professional needs. Furthermore, it was found that the traditional methods used in inclusive teacher training classes with visually impaired students conflate the learning needs of such students. From the response given, it was discovered that, inclusive education specialist, mainly lecturers and administrators, who do not have knowledge on visual impairment, do not directly support professional development of students with visual impairment in tertiary inclusive classes (Gebrehiwot, 2015).

Specialist lecturers are the key elements in professional development of visually impaired students in inclusive tertiary education (Batten & Daly, 2006), but they lack adequate, and relevant skills, and knowledge in the choice of andragogy be used in an inclusive class with visually impaired students. The evidence from this research shows that, although inclusive class lecturers want all students to be active participants towards set objectives, they do not meet the individual learning styles; they also do not pace their lectures to meet the needs of visually impaired students.

It was found out that, the inclusive specialist lecturers put emphasis on keeping given time on assignments, and general professional work. This research finding indicates that most specialist lecturers are not adequately trained on how to apply the necessary interaction andragogical methods such direct instruction, individualised educational instruction, and scaffold instructional procedures to pre-service visual impaired students who are in inclusive teacher training classes. The learning aids used during the teaching and learning process, if any, do not reduce the level of abstraction nor assist in mastery of concepts. Thus, the noted type, and quality, of interaction between the visually impaired students and the lecturers do not directly impact positively on professional development of visually impaired students in inclusive tertiary education institutions.

It arose from this study that pre-service visually impaired teachers cannot be compared to the sighted students given the variations and differences in their learning styles. The visually impaired students in inclusive pre-service teacher training classes cannot cope with the ordinary andragogy used in ordinary education system. This transcends from lack of educational support, large classes, insufficient facilities, infrastructure and assistive devices. The study found out that, in most inclusive pre-service teacher training institutions, the teaching and learning materials for use by visually impaired students are often not available. This perhaps explains the fear by lecturers in managing diversity in inclusive teacher training classes with visually impaired students, resulting in feelings of hopelessness by both students and lecturers.

The findings of this study show that specialist lecturers lack confidence in meeting individual professional needs, and interests of visually impaired students as they felt unprepared and unequipped to use relevant, and current andragogy in large inclusive tertiary classes with visually impaired students in inclusive teacher training education. Assistive technologies play an important role in minimising the challenges SVI face in the learning environment and in helping them to learn even in curriculum areas which previously seemed to be inaccessible to them (Gebrehiwot, 2015).

8. Conclusion

Considering the findings of the study, the following conclusions can be withdrawn that:

- Inclusive education has a long way to go to be fully realised in tertiary inclusive teacher training institutions in Zimbabwe. It requires the institutions' systematic and aggressive interventions if it is to be realised.
- Specialist lecturers are still using traditional andragogy when delivering their lectures to inclusive classes. They lack the necessary skills needed for inclusive classes with students with visual impairment.
- A curriculum designed with the needs of SVI taken into consideration will have a better chance of creating a more inclusive teaching and learning process than a curriculum design that ignores these factors.
- Lack of Braille and computer skills, adequate and appropriate AT and internet services adversely affected access and participation of SVI in teacher training activities in the selected tertiary institutions.

9. Recommendations

The researchers made the following recommendations:

- Instructors should consider SVI and all students with disabilities when they are teaching and cater for diversity.
- Instructors to be equipped with Braille and computer skills so that they are able to assist students with disabilities inclusive of those with visual impairment.
- Institutions to offer continuous training to its academic staff so that they keep abreast with technological advancements and contemporary practices in the field of inclusive education.
- Institutions should establish Disability Resource Units so that SwDs are provided with the appropriate services to facilitate their inclusion.

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