

An Evaluation of Inclusive Education of Students with Visual Impairment in Schools and University in Beira, Mozambique

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Abstract

Education of the visually impaired is associated with problems throughout the world. This problem is more pronounced in developing countries characterized by limited support, material, inadequate specialist teachers and negative attitudes towards people with visual impairment. The study sought to evaluate the implementation of inclusive education to the visually impaired in secondary and tertiary institutions in Mozambique. Questionnaires, observations and interviews were used in data collection. A sample of 110 respondents formed the study sample inclusive of students, teachers and lecturers. The study established that teachers were at different stages of concern. Most (68%) teachers seem to be on the stage of management on how best they can use available resources to make sure inclusive education works effectively. Additionally, some (22%) teachers are on the collaborative stage where they are ready to work for the success of inclusive education. Availability of support material and resources was seen falling below expected levels as most basic material is not provided for the learning of the visually impaired. Students (92%) with visual impairment acknowledged that they have problems of inadequate resources both material and human resources. It was recommended that teachers could be assisted to have an insight of providing brailled material and books to students by holding workshops and in-service courses about inclusive education issues. It is also recommended that most teachers be sent for extra training in dealing with the visually impaired in an inclusive setup.

Introduction

People with disabilities have often been subjected to unfair treatment (Hardman, Drew and Egan, 1999). This led to discontentment resulting in advocacy groups calling for equal opportunities of all people. Inclusion calls for equalisation of opportunities to all (United Nations, 1994) without discrimination especially to those with disabilities. The process of inclusion focuses on the system in order to make it welcoming to all people especially those disadvantaged by their disabilities. The United Nations General Assembly at its 48th session adopted the standards on the equalization of opportunities for persons with disabilities (United Nations, 1996:8). In education systems, the visually impaired need to be accommodated just like anywhere else. This calls for the

environment to be responsive to their needs, allowing them to learn with their peers and to fully participate in school activities. As a response, the United Nations Universal Declaration of Human Rights proclaim that human beings have equal and inalienable rights of human dignity and freedom of access to education and training to enable development of their abilities to their fullest potential (United Nations, 1996). The 1948 Bill of Human Rights considers education as a fundamental human right. The goal of education for all was also set by the United Nations at the 1990 Jomtein (Thailand) World Summit for children including those with disabilities (UNESCO, 1991:8). Additionally, the Salamanca Conference (1994) in Spain reinforced the provision of education to people with disabilities by encouraging nations of the world to provide appropriate education for all citizens with disabilities therefore advocating for inclusive education. Educationists today propound the principles of inclusive education as advocated by the Salamanca statement and framework for actioning of special needs education access and quality. The Salamanca statement encouraged the learning of people with disabilities in the same class as those without disabilities without discriminating them.

Mozambique is a signatory to the above UN conventions and agreements. Vayrynen (2000) pointed out that in Mozambique inclusive education was adopted as the principle in addressing the diversity of special needs of learners. For example, in 1990, the government of Mozambique signed the World Declaration on Education for All. In 1992 the Ministry of Education began devising a plan for the long-term development of basic Education. It affirmed its intention to strive towards the “Education for All” goals. The Government of Mozambique bases the inclusion of special education in its national policy stressing that there should be education for all without discrimination. The National Education Policy and Strategies for Implementation was passed in 1995, setting up special education as a key component. By 1998, the Education Sector Strategic Plan 1999-2003 (ESSP) was launched, followed by ESSP II in 2004 (UNESCO, 2008). The strategic plans emphasised that all children should have the right to education in any ordinary schools without discrimination on the grounds of disability. However, according to Tembe (2002), the implementation of inclusive education was actually initiated in Mozambique in 1999. The slogan was to combat exclusion, increase access to basic education and improve the quality of education to people with disabilities. This is illustrated by the quotation below (Tembe, 2002:2)

the national policy concerning people with disabilities states that the education system must guarantee to the person with disability, in general and to people with special needs in education, in particular, access to and integration in specialised schools, paving attention to appropriate pedagogical, technical and personal considerations.

The above assertion implies that people with disabilities be allowed to enrol in schools and appropriate teaching methods used including support material needed by individuals with disabilities.

The Ministries of “Education” and “Health, Women and Social Action” were mandated to be in charge of special education, and tasked to establish support, monitor implementation, and define criteria for the opening, functioning and closure of special education establishments (UNESCO 2006). The Ministry of Education (2004) asserted that the main strategic lines for the development of special education are; promoting the principle of integration, through sensitising and mobilising regular schools and communities for the programme of integrated special education, training itinerant support teachers; supplying education materials and equipment; and designing flexible study plans for children with special needs education. Children whose level of disability is deemed less acute are to be placed in the mainstream schools where they receive special and individual care, while those with severe disabilities have to attend special schools. Using this dual system of education, by the end of the 1990s there were four special schools nationwide, two for the mentally disabled, one for the hearing impaired and one for the visually impaired (UNESCO, 2006). Though the government is trying to implement inclusive education the existence of special school undermines the success of special education as the two would seem to be competing.

The five main types of inclusion identified by Mnkandla and Mataruse (2002) are as follows: (i) location inclusion, (ii) inclusion with partial withdrawal from ordinary classroom settings, (iii) inclusion with clinical remedial instruction and (iv) unplanned de facto inclusion (v) total inclusion. With location inclusion, students with severe disabilities attend ordinary schools and are taught the national curriculum in a secluded resource room within the school. Inclusion with partial withdrawal implies the visual impaired are taught the core subjects of reading and mathematics in the resource room and attend regular classroom with the other students for social studies and other subjects. These students are given partial support in their learning. Students served through inclusion with clinical remediation take the full curriculum in ordinary classrooms and receive clinical remediation as needed. The remediation targets the student’s specific learning difficulties. The last type of inclusion is unplanned or de facto inclusion. With unplanned inclusion, students with visual impairment are exposed to the full national curriculum in regular education settings. In Mozambique students are exposed to full national curriculum in regular schools that is unplanned or de-facto inclusion. However, inclusive education for the visually impaired is associated with problems the world over. These problems are more pronounced in developing countries characterised by limited support materials, inadequate specialist teachers and negative attitudes towards people with visual impairment (Kisanji, 1999).

Inclusion can be ascertained using the various Stages of Concern. Hord et al (1987) defines concerns as the composite representation of feelings, preoccupations, thoughts and considerations about a particular issue or task. This implies that concerns have to do with how we perceive different issues and situations depending on past experiences. Hord et al (1987) further points out those concerns about the innovation were proposed in the CBAM as one of the key diagnostic dimensions that change facilitators should consider in designing interventions. After refining the Stages of Concern in the 1970s a set of seven stages of concern was verified to occur in teachers, teacher educators and students. The stages of concern are; stage 0: awareness, stage 1 : informational, stage 2: personal,

stage 3: management, stage 4: consequence, stage 5: collaboration and stage 6: refocusing (Hord et al 1987). The awareness stage is concerned with the “I am not concerned about it”, the informational is concerned with “wanting to have more information”, personal stage is concerned with “how will using it affect me”, management is concerned with “I seem to be spending all my time getting material ready”. The consequence stage is concerned with “how is my use affecting learners?”. How can I refine it to have more impact? Collaboration is concerned with how one can relate what he/she is doing to what others are doing and refocusing is concerned with having some ideas about something that would work even better. Self Concerns are found in Stages 0, 1, and 2; task Concerns is found in stage 3 and impact or results concerns are found in stages 4, 5 and 6.

The majority of United Nations members in developing countries adopted the Salamanca framework on inclusive education without proper backing of binding laws, or proper implementation and provision of necessary support systems for the full benefit of those with disabilities. However, information on the adoption of inclusive education at different levels of the education system is important for effective planning and implementation of this education policy. This baseline data is also important in providing an insight into how the countries meet the Salamanca declaration of education for all as well as for policy evaluation. In this context, this study stands to help teachers in improving teaching in areas they might not be paying attention especially for students with visual impairment. Additionally, pupils will benefit when the teachers make amendments on how best to deliver education to students with visual impairment. The study is important to heads of schools as they will be made aware of the necessary support systems that need to be provided by the school for the benefit of children with visual impairment.

Lehtomaki (2001) pointed out that in Mozambique, national evaluation on the extent of inclusive education has not yet taken place primarily because of resource constraints. It is within this context of inclusion that this study was carried out with the aim of establishing the levels of inclusion, constraints associated with, and impediments to implementing inclusive education, especially for the visually impaired in selected secondary and tertiary institutions in the City of Beira, Mozambique. The sub aims of the study were to: establish the main components of inclusive education, determine the kind of support given to teachers, schools and the visually impaired; establish the stages of concern of teachers, non- visually impaired and the visually impaired students towards the learning of the visually impaired in an inclusive set up and establish the innovation configurations of the inclusion of the visually impaired children in different institutions.

Data and Methodology

Study area

Beira is the second largest city in Mozambique located in the central region in Sofala Province, at the mouths of the Púngwè and Búzi Rivers. Located in the central part of Mozambique along the Indian Ocean coast line (Figure 1), Beira was founded in 1891 as headquarters of Mozambique Company (“Companhia de Moçambique”) on site of an old Muslim settlement (Kyle, 1999; Silva, 2003). The city’s administration passed from trading company to Portuguese government in 1942 and then to independent

Mozambique in 1975 (Kyle, 1999). The port developed as a trade and transportation outlet for products of Central Africa as well as a transshipment point for coastal cargo. Currently, it also serves as an ocean terminus for railways from South Africa, Zimbabwe, Zambia, Congo, and Malaŵi, and is the main port for Zimbabwe and Malaŵi. Principal exports passing through Beira are metal ores, tobacco, food products, cotton, hides and skins. Main imports are liquid fuels, fertilizers, wheat, heavy equipment, textiles, and beverages (Mbendi, 2008). A fishing harbor, which includes canneries, processing plants and refrigerated stores, was constructed in Beira in early 1980s (Kyle, 1999). Together, these activities provide close to 80 percent of employment in Beira City. Figure 1 below shows the location of Beira city and the associated residential areas.

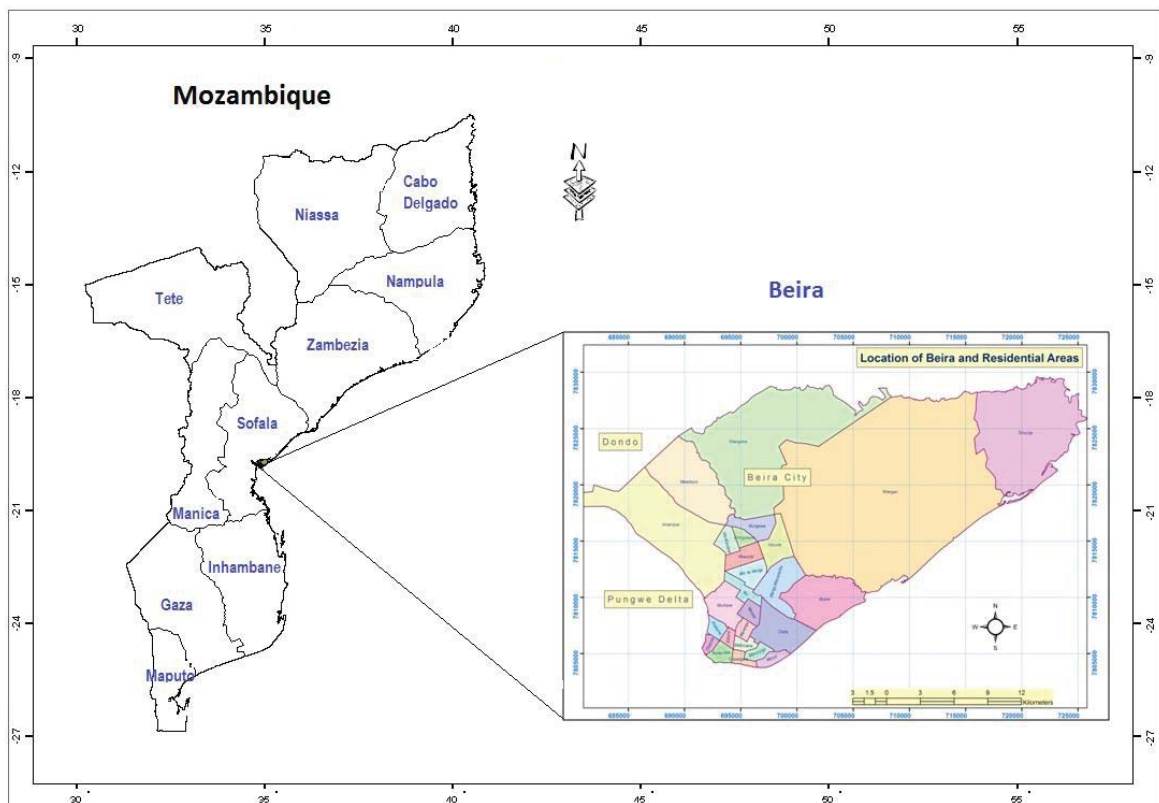


Figure 1: Location of Beira and associated residential areas

Beira city had a population of 412,588 people in 1997 and an estimated 439 264 in 2008 (INE, 2008). During the 1980s much of population increase was attributed to people moving away from ‘unsafe’ war ravaged rural areas to ‘safe’ cities. In 1970 the population of Beira was estimated at 113 770 people, 1980 (230 744), 1997 (412 588), 2007 (436 240) and by 2008 it is estimated to reach 439 264 people (INE, 2008). Additionally, during and after the civil war (1984-1992), heavy migration from rural areas into Beira resulted in on average a 90.8% increase in the city’s population and metropolitan area of Dondo. However, such phenomenal population increase has not been without consequences: unemployment, informal settlements, poor service delivery and environmental degradation are common features. This phenomenal population increase has also increased the number of potential students, especially those with

disabilities in need of education. To date Beira has xx secondary schools and xx universities. However, there are only two schools and one university where pupils with disabilities are catered for. As such this study was carried out in two Schools and a University where the visually impaired are enrolled. These are Samora Machel Secondary School, St Methews Samutembo Secondary School and Universidade Pedagogic.

Methods

The survey research design was used, which according to O'Connor (2006) captures the attitude or patterns of behavior. The design is associated with both quantitative and qualitative design commonly used in Social Sciences. The design is also simple and easy to understand (Leedy and Ormrod, 2005). The design was deemed appropriate in determining the innovation configurations, stages of concern (attitudes of teachers and students) and support strategies (resources and materials to use like Braille machines) in an inclusive set up for the visually impaired. The research instruments used in this study included questionnaires, interviews, and observations. To determine the stages of concern, the "Concern Based Adoption Model" questionnaire was used. Using non participatory observation and a checklist, the researcher observed both the teachers and students during the normal day working time and noted how inclusive education was practiced especially obtaining information on the innovation configurations using an observational guide checklist. Interviews were carried out with the lecturers and some of the teachers and responsible authorities to verify some of the data observed and obtained from the questionnaires.

Sample selection

For this study, our entire population consisted of all visually impaired students, their teachers and fellow students who learn with the visually impaired drawn from the two secondary schools and Pedagogic University. These were in constant and continuous contact with students who are visually impaired and hence know the problems, strengths and weakness of learning in an inclusive set up. Convenience sampling was used in data collection. Firstly, schools and the university where the visually impaired learn and these are the only institutions practicing inclusive education. Secondly, respondents from the selected schools and University were selected likewise, specifically targeting the visually impaired as well as those in contact with them.

Out of a total population of 290 potential respondents, 35% (110) were included in this study. The two secondary schools had about 20 teachers a piece in contact with students with visual impairment. On the other hand, the university has 10 lecturers in contact with the visually impaired. A total of 10 teachers (half) from the two schools were chosen to take part in the study. All the lecturers (10) at the University were also selected to take part in the study. For students, there were five classes with an average of approximately 50 students per class. Approximately, one third from each class (18 students), were selected giving a total of 90 students. The total number of participants included in the sample was therefore 110 (10 teachers, 5 Lecturers, and 90 students) as shown in table 1 below:

Table 1: Sample selection for the research

	Total	Selected	Percentage
Teachers	40	10	25%
Lecturers	10	5	50%
Students	240	90	37.5%
Total	290	105	36.2%

Questionnaires

Questionnaires were adopted from the stages of concern by (Hord et al., 1987). The questionnaire had 35 items covering seven stages of concern configurations and support systems provisions. Thus the questionnaires covered the seven stages of concern for teachers and the five stages of concern for students. Also included on the questionnaire were the eight items for innovation configurations and support. The questionnaires were distributed to teachers and students who were not visually impaired. O'Connor (2006) stated that questionnaires have an advantage of being self-administered; allowing respondents to fill them out on their own.

Observations

Observations gathered information on how the students and teachers work in an inclusive classroom. According to Brown (2001) there are two types of observations, direct observation (reactive) and unobtrusive observation. In this study unobtrusive observation was employed and respondents were not informed that they are under observation. This allowed respondents not to change their behavior (Brown, 2001). Information obtained included methods of teaching. Observations also obtained information on the possible problems faced by the visually impaired in their learning in an inclusive set up. An observation guide check list was used to guide the researcher not to concentrate on issues deemed unimportant to the study.

Interviews

Face-to-face interviews targeted the visually impaired because of their inability to read print and hence could not respond to the self administered questionnaires. Structured interviews were used in this study, which restricted the researcher to concentrate on pertinent information relevant to the research, such attitudes towards the inclusion of people with visual impairment. Interviews are widely reported to yield high return (Trochon, 2006). Information obtained through interviews included finding out the attitudes and aspirations of the visually impaired in an inclusive setup, the problems encountered during their learning process, and derived benefits from learning in an inclusive environment. Additionally, information on suggestions to overcome problems the visually impaired came across in their learning process was also obtained. The involvement or non involvement of students in sporting activities was also sought as well as reasons for such choices.

Data analysis

Data collected under observation was described in the analysis on how teachers teach their visually impaired students and also if support is being given to inclusive learners.

Data on interviews was analyzed by considering the responses and interpreting on what students say about learning in an inclusive set up. Data on inversion configuration group was used by tallying the number of individuals that are high on each stage. This gave a picture of the range of the peak scores within a group.

Results and Discussion

Qualifications and experience of teachers

From questionnaires administered to teachers, results revealed that the majority (60%) of teachers are male and 40% are female. Generally, in everyday life, it is accepted that ladies are kind and loving. The dominance by man in teaching the visually impaired probably explains why teachers do not assist students individually with their learning.

Professionally most teachers are holders of Honours Degrees showing that they are well qualified. However, having a high academic qualification does not prepare the teachers for special requirements of the visually impaired. A qualification in special education, however, could have been more desirable in such an inclusive setup in order to offer the best possible services to the visually impaired. Warnock (1978) point out that it is vital for teachers to have defined responsibility for children with special needs. This means that having the right qualification in special education would make teachers take responsibility of their students.

On the other hand, most teachers have less than 10 years teaching experience. This naturally may translate to having little experience in handling different needs of learners and especially of the visually impaired. Students with visual impairment require special treatment in their learning. This point is raised by Kapp (1991) who asserts that life experiences of the visually impaired go in their own way which is totally different from those of the normal. This implies that experience in handling different cases of individuals can enable teachers to handle people with visual impairment in their classes by providing them the necessary learning material.

It was also established that all teachers are Mozambican nationals. Although they have reasonable experience these teachers do not have exposure on how other teachers from other countries conduct lessons in an inclusive environment. This has an implication of teachers taking the traditional way of thinking that people with disabilities are objects of pity resulting in not paying attention to their needs. There is need for exposure to teachers to visit places where inclusive education has been successfully implemented to have an insight of what they should do in their schools.

Innovation configurations for teachers

Teachers gave different views on what inclusive education (Figure 2). The different views could also affect how individual teachers implement inclusive education. Badza and Tafangombe (2008) assert that the process of inclusion focuses on the system and making it welcome to all people. If we consider views of teachers who say inclusion is learning of the visually impaired in an ordinary class without support. It implies that the system will not be well coming all as certain provision that remove the barriers in

learning are not considered. Teachers with such kind of thinking are the one who do not provide students with what they need in their learning. UNESCO (1997) adds that the systems should accommodate people with disabilities making the environment respond to their needs which is through the provision of support systems.

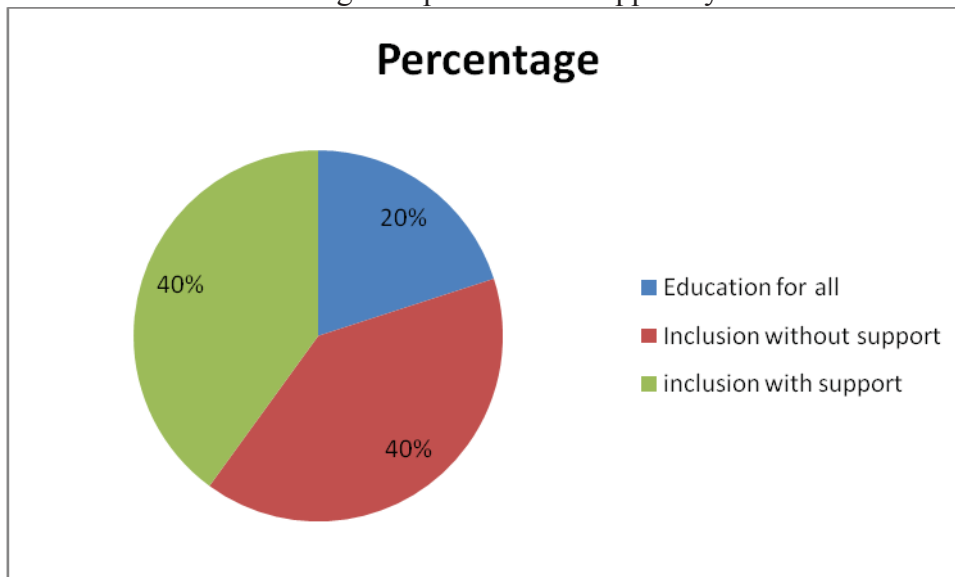


Figure 2: Main components of inclusive education

Skills and ability to teach

None of the teachers indicated that they can teach orientation, mobility and Braille writing. However 30% indicated that they could read Braille (Figure 3). The Ministry of Education directed that learners with visual impairment should follow the same curriculum as their sighted counter parts with the necessary adaptations and modifications. The adaptations and modifications are the ability to read and write in Braille. Inability to teach this skill disadvantages the students. Orientation and mobility is a very important skill which enhances independence to the visually impaired. Telford and Sawrey (1977) point out that one of the most difficult tasks is independent travel which can only be achieved if a student is taught orientation and mobility. Failure to teach such skills results in the visually impaired student depending on other people for mobility and thus depriving him/her of privacy. The inability to teach skills affected the teaching of social skills in schools and university.

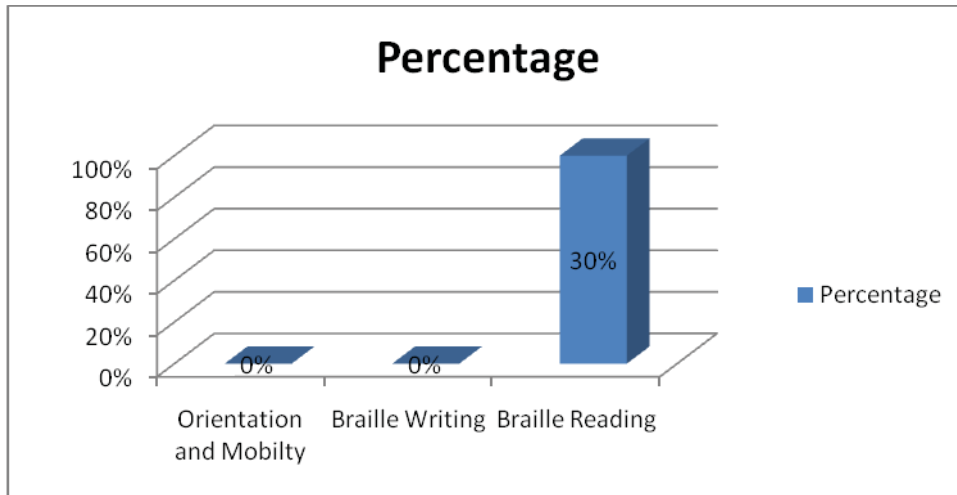


Figure 3: Skills Ability to teach

Availability and use of appropriate teaching materials

Teachers indicated that none of them provided brailled books during the learning of the visually impaired. Also shocking was the revelation that teachers do not have access to, and hence do not bring concrete materials for teaching in their lessons. Even with sighted students it is recommended that teachers use pictures for students to understand concepts. One of the teaching methods ideal for the visually impaired for better understanding of learnt material is through the use of concrete material. As the sensory experience of the visually impaired is meaningful only to the extent to which it can be associated with the concrete material. Not providing concrete material in lessons deprives the student who is visually impaired to full gain knowledge gained primarily through hearing and touch. This was also proposed by Kapp (1991) who asserts that the child's experiences should be associated with the concrete substances. This implies that use of concrete material is of much importance in the learning of the visually impaired. The foregoing statement is reinforced by Kirk and Gallagher (1983) who point out that the visual experience tends to unify knowledge in its totality. The visually impaired cannot obtain this unification in the absence of concrete experience which should be given through the use of concrete material in the teaching/learning situation. Observations were in agreement with findings obtained through questionnaires, that very little is done on the use of concrete media in the learning for students with visual impairment.

Data from questionnaires indicate that there are no Braille books for use by the visually impaired students. The absence of talking books was also noted. Observations also confirmed that teachers do not bring in brailled work or books for their students. This was again raised by students during interviews that they need brailled books or material to read as the teacher explains or reads with the other sighted students. Failure to supply these reading materials in Braille seriously puts the students with visual impairment at a disadvantage. Chakuchichi, Mapepa and Mutasa (2008) point out that children with visual impairment require the following as support material in their learning; Braille material, Audio aids, reading and magnifying glasses, voice enabled computers, balls

with bells and tactile audio sensitive environment. Thus the provision of these materials is essential in the learning of the visually impaired.

The visually impaired reading skills are through the sense of touch. What this means therefore is that if the student does not get reading material in Braille their reading skills are slowly destroyed as they will depend much on the sighted to read for them. Depending on other people to read for them removes the notion of equal opportunities to every learner in an inclusive set up. Other missing provisions are the supply of tape recorders. In the absence of brailled books they can play an important role when students reply explanations that were done by the teacher during lessons.

Observations also revealed that students were supplied with Braille paper and Braille machines for their writing. White canes were also seen to be in supply which is an essential tool in their orientation and mobility. Provision of these materials goes a long way to enhance the independence of students with visual impairment. When they show their ability to learn with the sighted this builds up their confidence and raises their self-esteem.

Teaching of social skills

On the question of social skills taught at school, 40% of teachers indicated that they teach interaction skills; none teach skills to keep friends and hygiene; 60% said they do not teach any social skills to the visually impaired (Figure 5). Due to loss of sight the individuals with visual impairment miss a lot of skills which are picked up by the sighted as they interact with the environment. For them to have acceptable social skills there is need to teach these skills. If skills are not taught it leaves a vacuum in the child's development. Only 40% of the teachers indicated that they teach interactive skills. Teachings of these skills are not on the time table and are taught during interactions with students. This kind of teaching is encouraging as it uses real life situations. However, the skills training has to be put on timetable so that they can be properly taught to students. The absence of teaching these skills could also result from teachers not having the knowledge to teach these skills. Kirk and Gallagher (1983) point out that the special child must acquire the knowledge and skills, which will allow him/her to live a socially acceptable and independent life. This can be achieved through the teaching of social skills.

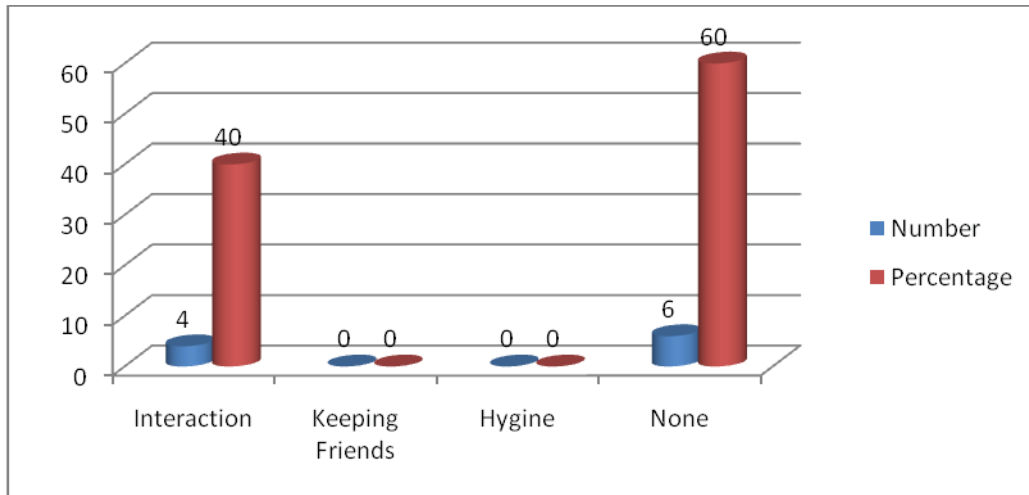


Figure 4: Social skills taught at schools

Sporting Activities and adaptations for the visually impaired

On the question of specific sporting activities the students participate in, teachers indicated that the majority (100%) of students with visual impairment take part in football activities while none take part in basket ball and chess. Some teachers said that visually impaired students get involved in athletics. However, findings from the interviews and observations reflect that students with visual impairment are mostly involved in football only.

All teachers indicated that the visually impaired use large sounding balls when playing football for easy detection of the ball. Sporting activities build confidence in students with visual impairment. Lowenfeld (1973) asserts that due to uncertainty and or fear moving through an environment makes the student not have confidence in what he/she is doing. Confidence gained during sport will remove the fear.

Use of specialist teacher for Braille

Responding to the question of working hand in hand with a specialist teacher the majority (80%) of teachers do not work with a specialist teacher (Figure 4). Ideally in an inclusive environment there is need of having at least a specialist who would work collaboratively with other teachers helping with brailing and transcription brailed work by students for marking. The working together of a specialist teacher would lessen problems of students not having work in Braille as the teacher who specialised in that area would so the brailing. From the questionnaires administered there is no collaboration with a specialist teacher in this respect. Those teachers who claim to be working with a specialist teacher might have given false information as observations revealed that there was no specialist to work with the students and teachers.

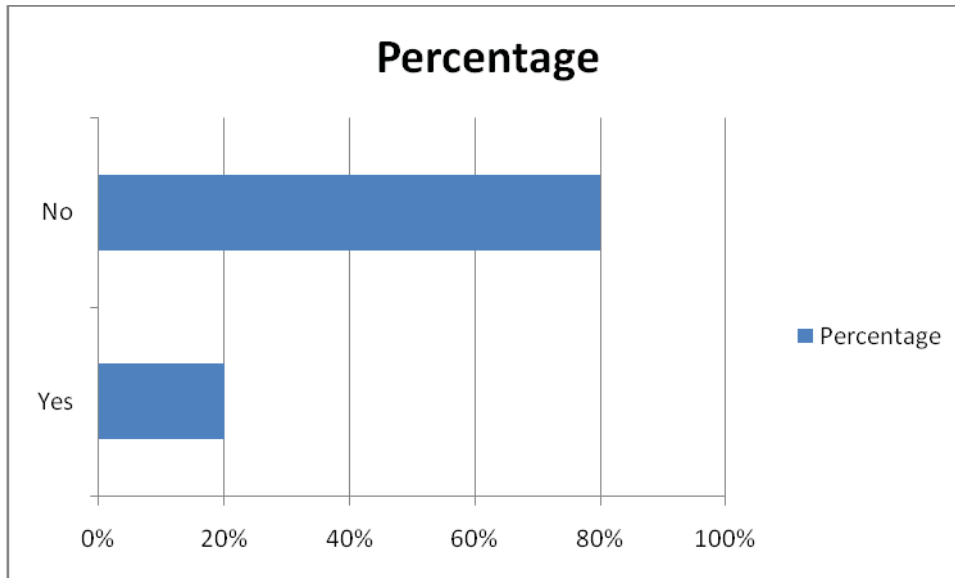


Figure 5: Working hand in hand with specialist teachers

Results from questionnaires reflect the same views obtained through observation that most teachers cannot read Braille nor do they have someone to transcribe for them except for about 30% (3) who can read Braille. The marking of students' work and tests is done by making the student read what he/she has written then the teacher marks the work as the student reads. The system has flaws in that if the student realises a mistake he reads what is not written by saying the correct answer or statement of which the teacher is not able to notice.

Innovation Configurations

It was observed that orientation and mobility training was not taking place. This was also corroborated from the casual talk with students who also indicated that they would like to have support in this area. The use of individual education plans (IEP) was also observed to establish if teachers use this in their teaching. It was observed that there are no IEPs used in the teaching and learning of the visually impaired in an inclusive set up. The use of IEPs is important as pointed out by Individual with Disability Education Act (2000) that IEPs are designed to meet the unique needs of learners with disabilities. If teachers do not use the IEPs in their teaching it implies that individual needs are not met.

Teachers attitudes "Stages of Concern" for the visually impaired

According to Hord et al, (1987) the stages of concern are; stage 0: Awareness, stage 1: Informational, stage 2: Personal, stage 3: Management, stage 4: Consequence, stage 5: Collaboration and stage 6: Refocusing. Table one below summarises the results obtained on analysis of the stages of concern as per the teachers' attitudes towards students with visual impairment.

Table 2: Teachers Attitudes Stages of Concern for the visually impaired

Teachers Attitudes	Stages of Concern						
	0: Awareness	1: Informational	2: Personal	3: Management	4: Consequence	5: Collaboration	6: Refocusing
Benefits from inclusion	1	0	0	5	2	0	2
Teaching of social skills	1	0	3	3	1	1	1
Teaching of orientation and mobility	7	2	1	0	0	0	0
Learning of the visually impaired in an inclusive set up	0	0	2	6	1	1	0
Student's attitudes towards inclusive education	0	0	0	7	0	2	1
Knowledge on the availability of resources for the visually impaired	0	0	0	4	1	6	1

On benefits from inclusion, the highest concern was mostly on how inclusive education should be managed. Such concerns are positive as attitudes by teachers affect the way inclusion is managed for students to benefit from it. Concerns in stage 4 and 6 focus on consequences and refocusing. The concerns of most teachers indicate that students benefit from inclusive education.

On teaching of social skills to the visually impaired, most teachers' concerns centre on stage 2 and 3, Personal and management respectively. In stage 2 teachers are not sure if they can teach the skills as they feel they are not adequately prepared to the skills. This is also collaborated by data from the questionnaires were teachers indicated that they are not able to teach social skills. Those with concerns on management need to know the best way of teaching the skills even if they do not have the ability to learn. The implication is that given the opportunity to learn they are prepared to learn and assist students with visual impairment in social skills learning. The other stages might not affect the general feeling on skills training though there is need to attend to needs of each individual teacher.

The concerns on the teaching of orientation and mobility indicate that teachers are not concerned with the teaching of orientation and mobility. As such most indicated that they were in the stage 1: awareness with a few (2) in Stage 2: Personal. From the questionnaires, the majority of the teachers (80%) also indicated that they do not teach orientation and mobility. However, orientation and mobility is the harbour of skills training and independent living of an individual with visual impairment. This is also pointed out by Welshman and Gearheart (1988) who assert that without orientation and mobility the student with visual impairment is denied the opportunity to exercise independence on daily living skills like walking.

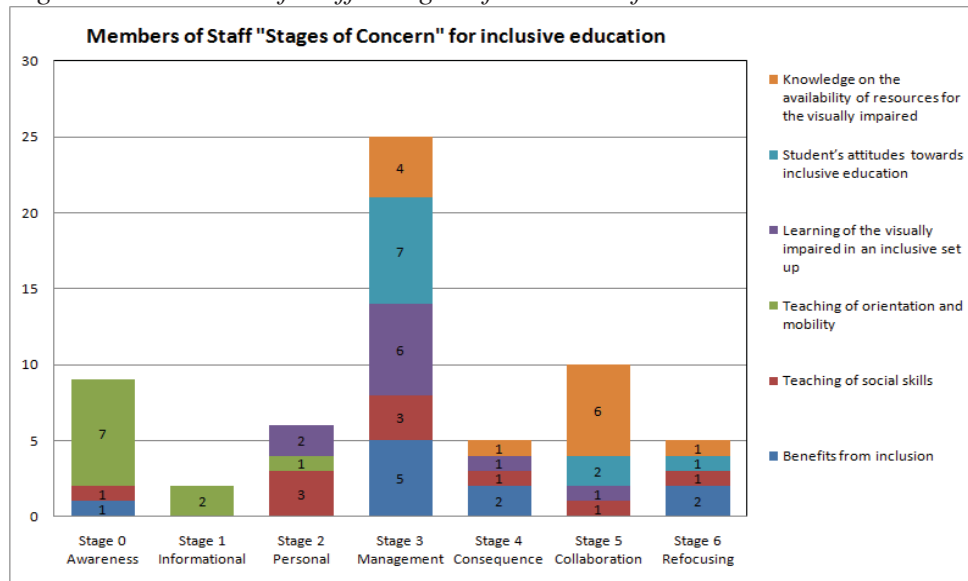
Responding to concerns on the learning of the visually impaired in an inclusive set up most teachers have concerns in stage 3 the management stage. Teachers have concerns on how their learning can be managed, which implies being positive that they can learn in an inclusive set up. This is contrary to Mahaham, Marino and Millar in Sperandio and Klerks, (2007) who assert that a study in Asia found that 75% of teachers surveyed did not believe the inclusion of children with special needs in their classrooms would

succeed. From the findings Mozambican teachers seem to be positive that their inclusion would be a success.

On the attitude on “limited knowledge on where the visually impaired should learn” most teachers were in the refocusing stage. Their concerns were on the best place for the visually impaired. The concerns are that if the best place is in an institution let them learn in an institution. The concerns might be in contradiction to the idea of inclusive education on equal opportunities for all students as pointed out by the United Nations (1994) that inclusion calls for equalisation of opportunities. In an inclusive environment people with visual impairment have a right to be included in the ordinary classes and not to be discriminated.

One of the things that can affect the inclusion of people with disabilities is attitudes. If attitudes are negative it is difficult to include the visually impaired in the classroom with the non-visually impaired. Figure 5 below shows that teachers thought that the majority of teachers are concerned on how the inclusion of the visual impaired in ordinary classes can be managed, stage 3. The concerns are positive in that the teachers might alert visually impaired students on why it is important to include them in classes. When students understand their inclusion it enhances acceptance and social inclusion which will ultimately raise the self-worthiness of people with visual impairment.

Figure 6: Members of Staff "Stages of Concern" for inclusive education



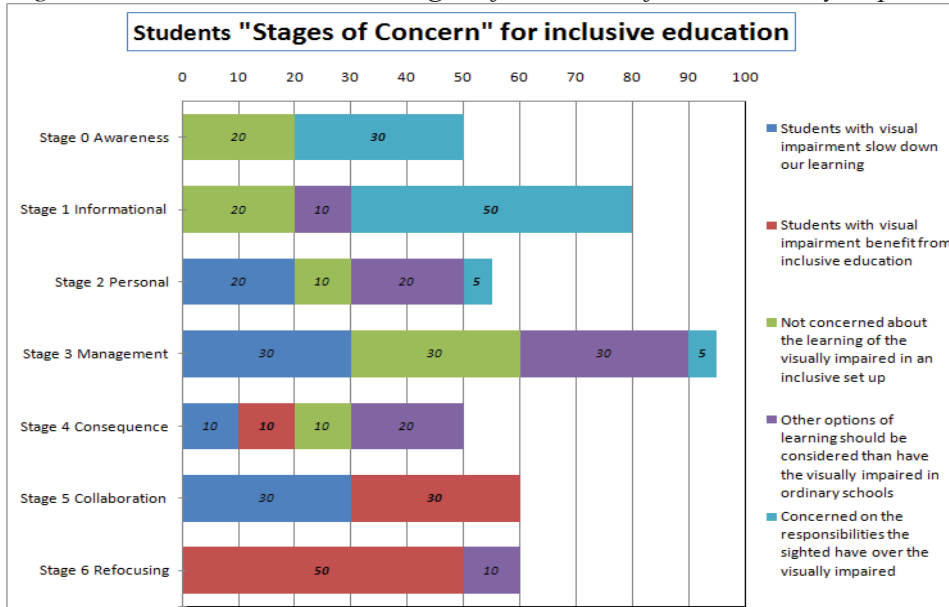
Responses to the attitude on “knowledge on the availability of resources for the visually impaired” the majority of teachers were found to be in the “collaboration stage” (stage 5). At this stage teachers want to collaborate and acquire knowledge on the availability of resources for the learning of the visually impaired. This implies that teachers are ready to work with other members to avail resources for the betterment of children with visual impairment. If these concerns were to be put into practice it could help students with visual impairment. Management concerns (stage 3) come second in ranking (Figure 5

above). The concerns at this stage are on the availability and management of resources. Concerns focus more on how resources can be managed to the benefit of the child with visual impairment. Such concerns may assist teachers to change and make sure that their teaching methodologies make use of resources like concrete materials.

Students attitudes “Stages of Concern” for the visually impaired

From the study it was apparent that stage 0: awareness stage is mainly comprised with students not being concerned about using the same facilities with those who are visually impaired as well their responsibilities in assisting the visually impaired (Figure 7). In stage 1, the informational stage, most respondents were mainly concerned the perceived responsibilities of those with sight over those with visual impairment. In stage 2, the personal stage, there was an equal representation of students who felt that students with visual impairment slowed them down and that other options had to be found instead of having an inclusive setup. In stage 3, the management stage, all views were expressed except that visually impaired students actually benefit from the inclusive setup. Stage 3 had most responses with respondents indicating in equal proportions that (1) Students with visual impairment slow down our learning, (2) students with visual impairment benefit from inclusive education and (3) they were not concerned about the learning of the visually impaired in an inclusive set up. Stage 4, the consequence stage, also had proportional responses regarding the view that students with visual impairment slow down our learning, but benefit from inclusive education and as such were not concerned about the learning of the visually impaired in an inclusive set up. However, the major response was that other options of learning should be considered in ordinary schools. Stage five and six had two outstanding attitudes each but in different proportions. In stage five the collaboration stage students felt in equal proportions that their peers with visual impairment benefit from inclusive education and at the same time slow down their learning. In stage six however, the majority of students felt that the visually impaired benefited in an inclusive setup more than they slowed down learning Figure 7 below summarises these concerns and attitudes of students towards ther visually impaired.

Figure 7: Students attitudes "Stages of Concern" for the visually impaired



On the first concern that students with visual impairment slow down learning, 33% of students indicated that they were in stage 3 which is the management stage. There were also 33% in stage 5 which is the collaboration stage; 22% in Stage 2 which is the personal stage and 11% in the consequences stage (Stage 4). Students concerns centred on management (Stage 3) were concerned with how the visually impaired felt about them. They were concerns on the social and personal relationships with the visually impaired. In some way they were concerned that their learning is affected by the visually impaired. Others have concerns on the collaboration stage, this group seems be in a position of collaborating with the visually impaired so that their learning is improved and they feel at easy to learn in an inclusive set up. Another group has concerns that are on the personal (Stage 2) students in this stage are concerned about their ability to learn with the visually impaired. They are not sure if they can go along with the visually impaired in the same class. While others have concerns on consequences these have questions on what happens if they learn with the visually impaired. The concerns are mixed up as shown in the diagram below. This might make it difficult for children with visual impairment to learn with the sighted as some students view their learning with the visually impaired as slowing down their learning. Table 3 below summarises the results obtained on analysis of the stages of concern as per the students' attitudes towards their colleagues with visual impairment.

Table 3: Students attitudes “Stages of Concern” for the visually impaired

Students Attitudes	Stages of Concern						
	0: Awareness	1: Informational	2: Personal	3: Management	4: Consequence	5: Collaboration	6: Refocusing
Students with visual impairment slow down our learning	0	0	20	30	10	30	0
Students with visual impairment benefit from inclusive education	0	0	0	0	10	30	50
Not concerned about the learning of the visually impaired in an inclusive set up	20	20	10	30	10	0	0
Other options of learning should be considered than have the visually impaired in ordinary schools	0	10	20	30	20	0	10
Concerned on the responsibilities the sighted have over the visually impaired	30	50	5	5	0	0	0

The different students’ attitudes are looked at in detail below.

Students with visual impairment benefit from inclusive education

The majority of students show that it is true that the visually impaired benefit. These are in stage 6 of refocusing; 33% (30) indicated that. Additionally, this is also the same scenario in stage 5 which is the collaboration stage and the other 11% (10) it somewhat true in stage 4 which is the consequences stage. Concerns of students range from stage 4 to 6. This shows that students assume that the visually impaired benefit from inclusive education as they are prepared to improve the way students with visual impairment learn. In stage 6: the collaborative stage, students are ready to collaborate with the visually impaired so that they benefit from inclusive learning. This was realised by the assistance rendered for instance when they read for them as they are in short supply of brailled books and brailled material. The minority group is in stage 4 the consequences stage.

Not concerned about the learning of the visually impaired in an inclusive set up

Mixed feelings have been shown from the data presented (Table 3). Stages of concern vary from group to group. The differences in variation indicate different opinions on the learning of visually impaired in an inclusive environment. Stage 3 has the greatest number of students who are concerned about management of the inclusion of people with disabilities.

Other options of learning should be considered than have the visually impaired in ordinary schools

Students have the highest concerns of 33% (30) in stage 3; 22% (20) each in stages 2 and 4; the other concerns share 11% (10) each in stages 1 and 6. Concerns on other options for the learning of visual impaired are spread from stage 1 to stage 6. Students in stage 3 are concerned on how other options of learning are managed if they are available. Their concerns are on the trial of other options of learning if they are available. They seem to be concerned on how they feel about people with visual impairment and having the best options. Stage 2’s concerns are that they need more information about inclusive education and other options if any that are available for the learning of the visually impaired. This can be done through support systems like awareness campaigns through radio, magazines and demonstration schools to show the learning of the visually impaired in a real functioning state. Those in stage 4 have concerns on consequences of having

other options of having the visually impaired to have to learn in other environments that are different from an inclusive set up.

Concerned on the responsibilities the sighted have over the visually impaired

The majority of students 55% indicated that it is not true for now (stage 1) the information stage; 33% (30) said this is irrelevant in stage 0 the awareness stage; 6% (5) each is shared on responses in stage 2 and 3. Stage 2 is the personal stage and stage 3 is the management stage. The information (stage 1) students have concerns on what their responsibilities are when they are learning with those with visual impairment. The second largest group of students has concerns in (stage 0) these are not concerned whether they have any responsibilities over the visually impaired or not. It implies that students in this stage of concern need to be educated on their responsibilities that they might have in promoting a conducive environment for learning with the visually impaired.

Structured Interviews with the Visually Impaired

Benefiting from learning in an inclusive set up

From the 10 interviewed individuals with visual impairment, all indicated that they benefit from learning in an inclusive environment and they do not mind to learn in such a set up. The visually impaired students seemed to be quite happy to learn in an inclusive environment. They pointed out that they normally share ideas with their class mates on issues they don't understand the sighted peers take their time to explain.

Problems faced by the visually impaired in an inclusive set up

From the 10 interviewed students there was a general feeling that there was not enough material provided such is written work in Braille since there are no books written in Braille. The interviews indicated that teachers write on the chalkboard and they do not have anything they can refer to on what will be talking place. When teachers are making illustrations they requested to be provided with tangible materials they can touch or read for better understanding. Respondents also indicated that their teachers inability to read Braille makes it difficult for them to mark their work meaningfully.

Suggestions to overcome the problems faced by students

From the interviews it was suggested that more material in Braille be brought to classes. They also suggested that with the coming up of new technology, it could be best if they are provided with (jazzy) computers that talk, print material written in print into Braille. They also suggested that teachers be trained to read and write in Braille so that they can provide them with brailled material during lessons. Respondents also indicated that they are involved in sporting activities especially football and at times athletics. They attributed the limitations to limited special facilities or adaptations for them to fully participate. Their engagement in sporting activities is therefore still at a small scale.

Conclusions and Recommendations

The way inclusive education is run in schools and university needs some improvements. Although students with visual impairment claim that they are happy to learn in an inclusive set up there are certain issues that need to be addressed for the full benefit of inclusive education to the visually impaired. For example, teachers need more information on inclusive education issues and the methodologies that best benefit students with visual impairment. Sighted students generally have a fair treatment of the visually impaired even if some showed concerns of their learning being slowed down by those with visual impairment.

Recommendations

The following recommendations cover what needs to be done by the responsible ministries, teachers and students as well as material provision as a way of bettering the provision of education to the visually impaired under inclusive setup. Overall, there is need for close supervision from the Ministry of Education to see if the implementation of inclusive education is done as per expectation rather than leaving the responsibility to school to decide how they can run inclusive education.

On one hand, teachers need to be involved in-service training so that they get to know on how to teach and assist students with visual impairment in an inclusive environment. Newly trained teachers should be taught some basic special education issues so that when confronted with the situation of teaching the visually impaired they are in a position to do so. Teachers should also be encouraged, through workshops, to utilize students with visual impairments compensatory senses like the sense of touch by providing them concrete objects in their leaning. Teachers and responsible authorities need to provide students with brailled books for reading in the various disciplines.

On the other hand, students should be provided with jazzy computers, that is computers that talk and can translate Braille into print or vice versa. Additionally, students concerns on aspects that negatively affect the smooth running of inclusive education need to be dealt with as early as they are detected. This can be tackled through awareness programs on inclusive education conveyed through magazines or teachers forums. Furthermore, collaboration should be encouraged so that inclusive education implementation becomes a success such as having at least one specialist teacher who works in collaboration with other teachers to Braille, transcribe and possibly teach other teachers to read and write in Braille.

Since students are not given brailled books or material written in Braille it is recommended that it could be ideal for them to be supplied with tape recorders. Children with visually impairment mostly get most of their information through audition. Providing children with tape recorders will assist students to be comfortable with their learning. Students find it difficult to understand illustrations that are done by teachers as they do not have sight. Recording the teacher during lesson enables the student replay the tape to understand what would have been taught. None availability of such material is

denying a child his/or rights to full education with all the support needed. All the above recommendations will not only better schools in Beira but stands to improve provision of education in Mozambique in General if implemented.

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