Perceived Challenges Faced by Visually-impaired Students in Open and Distance Learning Centres in Zimbabwe

Jabulani Mpofu\(^1\) and Almon Shumba\(^2\)

\(^1\)Department of Disability Studies and Special Needs Education, Zimbabwe Open University, Harare, Zimbabwe

\(^2\)School of Teacher Education, Faculty of Humanities, Central University of Technology, Free State, Bloemfontein 9300, South Africa

E-mail: \(1^*\)<jabumpofu@cooltoad.com>, \(2^*\)<ashumba@cut.ac.za, almonshumba@yahoo.com>

KEYWORDS Challenges. Open and Distance Learning Institutions. Visual Impaired Students. Zimbabwe

ABSTRACT The main aim of this study was to determine perceived challenges faced by visually-impaired students in Open and Distance Learning centres in Zimbabwe. A descriptive survey approach was used in this study. A purposive sample of 102 students with visual impairments in 5 ODL tertiary institutions in Zimbabwe was used in this study. Data were collected using questionnaires and interviews. Quantitative data were analysed using percentages and qualitative data were analysed using themes derived from research questions. The study found that ODL modes of delivery were exclusionary in nature and lacked suitable facilities catering for students with disabilities. Implications of the findings are presented in detail in the study.

INTRODUCTION

The demand for skills and knowledge and requirement to adjust and change with changing technology places human spaces a need to learn. As people need an education of one form or another, research shows that conventional education institutions cannot cope with the demand of this magnitude (Kurasha 2010). Distance education and Open learning have become the most effective way of transmitting these appropriate skills and knowledge required for national and international development in Zimbabwe (Kurasha 2010). Since attainment of independence in 1980, the Zimbabwean government has spearheaded the development of distance and open learning at tertiary level. Open and distance education (Jenkins 1981; Keegan 1980; Lemmer 1994; Matshazi 1988; Peters 1982) is a generic term that covers various forms of study in which students are not necessarily, continuously and immediately supervised or tutored by lecturers. Research shows the following challenges faced in Open and Distance learning: students are not in a position to be tutored immediately and at whatever time; it involves tutoring not lecturing; teaching in distance is not continuously carried; the tutor and student are separated from each other; and it also involves face to face tutoring, electronic and other kinds of academic support to the learners (Ndereya et al. 2003).

The delivery modes of Open and Distance learning are meant to cater for students who, for one reason or the other, are not able to attend full time classes (Chimedza 2002). There are several distance education delivery models that universities have used to teach students from a distance. The evolution of distance education has so far seen three generations (Chimedza 2003). The first generation consisted mainly of correspondence learning. The second generation type included face to face tutoring to supplement module. The latest generation is characterised by the use of latest technologies such as the internet, the World Wide Web, E-mail, V-Sat and other modern technologies. Most institutions in Zimbabwe are in the second generation (Chimedza 2003) because they use the latest technology. They make use of printed modules as the key tool, students read the module on their own doing activities in it. They are also supported with printed tutorial letters and assignments. In some cases, there are reading...
textbooks recommended that students’ source for themselves from libraries to support the module. Beside the module, institutions that offer ODL provide face to face tutorials to assist students understand grey issues from their course. During this face to face session students get the opportunity to interact with peers.

Zimbabwean education and manpower development policies espouse the egalitarian values of equal opportunities for all (Mpofu et al. 2007). For example, by law primary education is free and compulsory. However, students pay school levies with some government assistance. The egalitarian values of equal opportunities are also extended to Open and Distance Learning as they are required by law to enroll students from different ethnic, cultural groups and those with special needs to be admitted in colleges and universities (Mapepa et al. 2004).

Besides egalitarian values of Zimbabwean education policies, the country is a signatory of several inclusive education related international Charters, conventions and cooperation agreements such as World Declaration on Education for All (1990), the Salamanca Statement and Framework for Action on Special Needs Education, The Millennium Development goals focusing on poverty reduction and development (2000), Education For All (EFA) flagship on education and disability 2001 (Mpofu 2008). The Zimbabwean education policies also adopted equity as its principle for inclusive education.

The convention and Charters made students with visual impairment visible into Open and Distance Learning institutions. Some institutions that offer Open and Distance Learning have opened centers within their operational structures that work on the needs of students with visual impairments and other disabilities (Mpofu 2008). However, the trend in most of these centers are as result of high turn up, students with visual impairment encounter problems in their quest to obtain degrees through merit and not through charity. The problem becomes worse in ODL institutions that do not have centers that cater for students with disabilities.

The Southern African nation of Zimbabwe recognises the importance of Open and Distance learning to all its citizens. To improve the quality of people with visual impairment through education, institutions that provide Open and Distance Learning are challenged to look closely at the preparation of those who work with students with visual impairment. Research on tutor/lecture preparation for teaching students with visual impairments both in ODL and conventional indicates that students with visual impairments lack qualified personnel to teach them even though they enroll them (Ingerson 1999). Tutors who can read Braille, transcribe, Braille and able to teach mobility and orientation are very important in making learning least restrictive for students with visual impairments. They would be in a position to mark assignments and give feedback in time, invigilates students with visual impairments, and provide orientation to students when they come for examinations. Besides the above tutors who are well informed in disability issues tend to have positive attitudes towards students with visual impairments (Allport 1954; Cook and Selltiz 1955; Mpofu 2004; Yuker 1983).

One of the primary concepts of Open and Distance Learning is to offer students ‘learning anytime anywhere’ (Ndeya-Ndereya et al. 2003). Therefore, all distance education resources should be designed to afford students with visual impairment maximum opportunity to access distance education resource anytime and anywhere without the need for outside assistance (for example, module readers). Students with visual impairments need to have all their learning material brailed or enlarged depending on vision loss. The idea of recommending textbooks that are printed to a visually-impaired student and referring them to libraries that do not have brailed text books becomes exclusionary. Distance education resources must be designed in the most accommodative way, where possible must include computer assistance technologies (Mapepa et al. 2004). Whenever possible, information should be provided in the alternative format preferred by the student (brailed, audio tape, large print, than printed modules only). When choosing between possible alternative format or methods of delivery, considerations should be given to the fact that methods which are adequate for short, simple or less important communications may not be equally effective or appropriate for students with disabilities, more complex, or more critical material methods that are suitable for individuals with visual impairments makes education available to clients they serve
Open and Distance Learning modes must be designed and delivered in such a way that the level of communication and course taking experience is the same for students with or without visual impairments regardless that they represent a small portion of people with disabilities in society (Mapepa et al. 2004).

The main goal of this study was to determine challenges faced by students with visual impairment studying with Open and Distance Learning modes of delivery in Zimbabwe. It is against this background that this study sought to answer the following research questions:

- What is the level of Zimbabwean ODL Tutor preparation to teach students with visual impairments?
- How effective are the ODL modes of communication to students with visual impairments?
- To what extent are students with visual impairments in ODL centres provided with mobility and orientation training by their centres as support services?
- To what extent does the ODL print module mode of delivery assist students with visual impairments?

**METHOD**

**Research Design**

A survey approach was used in this study. According to Fowler (1988), survey approaches are used to collect information on a selected attribute from a sample of respondent drawn from a target population through the use of questions. Survey method has the advantage that the findings can be generalised to the target population (Mpofu 2001). The findings obtained in this study represent the challenges faced by Zimbabwean students with visual impairment in Open and Distance learning modes of delivery.

**Sample**

The sample of the study was comprised of 102 (67 male and 35 female) students with visual impairments in 5 ODL centres in Zimbabwe. The respondents had central visual acuity of 20/200 or less in the better eye. Such respondents are defined by Lowenfield (1974) defined as legally blind. Participation in this study was voluntary and participants were told that they were free to withdraw from the study at any moment.

Table 1 shows that the majority of participants were male. The respondents were also drawn from different pool types with college students constituting 68 % and 32 % were in university education. The study also confirmed respondents’ degree of visual impairment as moderate, severe and profound visual impairment.

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Frequencies</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>67</td>
<td>66</td>
<td>102</td>
</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>34</td>
<td>102</td>
</tr>
<tr>
<td>ODL Institution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College</td>
<td>69</td>
<td>68</td>
<td>102</td>
</tr>
<tr>
<td>University</td>
<td>33</td>
<td>32</td>
<td>102</td>
</tr>
<tr>
<td>Degree of Visual Impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>81</td>
<td>79</td>
<td>102</td>
</tr>
<tr>
<td>Severe</td>
<td>13</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Profound visual disability</td>
<td>8</td>
<td>8</td>
<td>102</td>
</tr>
</tbody>
</table>

**Instruments**

Questionnaires and interviews were used to collect data in this study. Enlarged print and brailed questionnaires with closed ended questions and open interviews were used to collect data on the challenges faced by students with visual impairment with Open and Distance Learning modes of delivery. The alternative formats were preferred because of their user-friendliness to people with visual impairments. Ten students with visual impairment learning through ODL in Mashonaland West Province took part in the pilot study. The purpose of the pilot study was to test the content validity and reliability of the research instruments used in the study. The pilot study sample was selected using convenient method of sampling. A reliability coefficient of 0.72 was found for the questionnaire. This implies that the instrument was reliable because it had a high positive correlation coefficient. Three experts in Educational Psychology looked at the questionnaire to check if the language was clear and they all confirmed that the instrument was valid.
Data Collection

Participants (visually-impaired students) were identified by research assistants from the ten provinces of Zimbabwe through the use of visual impairment disability survey return forms (forms meant for research assistance to list names of individuals with visual impairments known to them in their regions studying with Open and Distance centres). Research assistants collected data and carried interviews on behalf of the researchers over a period of two months and then submitted completed questionnaires and interview reports to the researchers. Questionnaires were presented in formats that were user-friendly to participants, thus braille for profound visual impairments and enlarged prints for moderate to severe visual impairments category.

Data Analysis

Quantitative data were analysed using frequencies and percentages in this study. Tables were used to show percentages and frequencies because they can be easily read and understood. Qualitative data were analysed using themes derived from research questions in this study.

Ethical Issues

Permission for students with visual impairments to take part in the study was obtained from the participants themselves through voluntary participation. Participation was voluntary and participants were free to withdraw at any point in the study. All participants used in this study were assured of anonymity and confidentiality in the study. Participants were assured that data collected in this study would be used for purposes of this study only.

RESULTS

The results of this study were presented thematically using the research questions as shown below. In order to provide adequate answers to the study, respondents were asked to respond to questions from questionnaire driven from research questions by rating their responses on a five likert scale which was: SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree for each and every statement. Research results are given in Table 2 and the analysis of each and every research questions are also provided under this section.

**Research Question 1:** What is the level of Zimbabwean ODL Tutor preparation to teach students with visual impairments? The respondents who were Opening and Distance Learning students were asked to respond to questions 1 and 2 in Table 2. The first question was meant to find out if tutors, invigilators and other personnel at their institution could read brailled material. Respondents indicated that their tutors and significant others at their institutions were Braille illiterate. Only 6 % of the respondents indicated that they have some personnel at their centers including tutors who were braille illiterate. Question number 2 from the questionnaire was meant for the respondents to rate their institution personnel attitudes towards students with visual impairment. The results show that the majority (67 %) of respondents had positive attitudes towards students with visual impairments.

**Research Question 2:** How effective are the ODL mode of communication to students with visual impairments? Participants were asked four questions (3, 4, 5, and 6). Question number 3 asked respondents to rate if ODL communication modes (tutorial letters, time tables, registration forms) used by their institutions were user friendly. The responses were that 94 % of them felt that communication channels indicated on the questionnaire were not user friendly only 6 % indicated that they take cognisance of their disabilities. Respondents were also asked if their tutors have modified their presentation models of delivery to meet their disabilities. The results were that 84 % of the students with visual impairments felt that the tutors were teaching without taking care of their disabilities and only 16 % confirmed that their tutors took care of their needs. Question 4 extended user friendliness of tutorials to fellow students. The respondents confirmed that fellow students were also not taking care of their disabilities when presenting issues in tutorials. This was seen by 88 % of them confirming that in face to face tutorials both tutors’ and students without visual impairments use braille machines hence needs
time to take notes or have visual problems that interferes with their speed in note talking.

**Research Question 3:** To what extent are students with visual impairments in ODL centres provided with mobility and orientation training as support services? Participants were asked four questions (6, 7, 8 and 9). Question number 6 asked respondents to confirm if they were getting social support from fellow students at the institution or from university or college as an institution. The respondents indicated that 94% of them get support from fellow students out of their sympathy, they read them exam time tables, orient them take them even to sitting positions in exam rooms and other services. Only 6% indicated that their institutions are taking

Table 2: Responses on the challenges faced by students with visual impairment with ODL modes of delivery

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statement</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My tutors, invigilators and other personnel at my institution of learning are Braille literate.</td>
<td>3 3 3 3 0 0 0 96 94 100</td>
</tr>
<tr>
<td>2</td>
<td>ODL personnel at my institution have positive attitudes on Individuals with visual impairments.</td>
<td>18 18 50 49 0 0 4 4 30 39 100</td>
</tr>
<tr>
<td>3</td>
<td>Communication modes used by my institution such as tutorial Letters, time tables, registration forms are user friendly to my disability</td>
<td>3 3 3 3 0 0 0 96 94 100</td>
</tr>
<tr>
<td>4</td>
<td>My tutors have adopted effective communication models for me in a face to face tutorial sessions</td>
<td>9 9 7 7 0 0 0 86 84 100</td>
</tr>
<tr>
<td>5</td>
<td>In a face to face tutorial my tutor and other students accommodate my speed when taking notes since I have visual impairment</td>
<td>6 6 6 6 1 1 1 0 90 88 100</td>
</tr>
<tr>
<td>6</td>
<td>I get most of my social support from concerned fellow students rather than the institution (reading of time table, exam sitting position, orientation and others)</td>
<td>90 88 6 6 0 0 3 3 3 3 100</td>
</tr>
<tr>
<td>7</td>
<td>My institution offers mobility and orientation services to new and old students with visual impairments to assist them when they come for tutorials and examinations</td>
<td>44 43 40 39 2 2 9 9 7 7 100</td>
</tr>
<tr>
<td>8</td>
<td>Our institution buildings are very accessible</td>
<td>0 0 0 0 5 5 50 49 47 46 100</td>
</tr>
<tr>
<td>9</td>
<td>We have a disability unit in our institutions that caters for individuals with disabilities</td>
<td>8 8 8 8 0 0 60 59 37 36 100</td>
</tr>
<tr>
<td>10</td>
<td>ODL modules at our institution are available in Braille, magnified text, tapes and other forms suitable for students with disabilities</td>
<td>11 11 12 12 5 5 60 59 26 25 100</td>
</tr>
<tr>
<td>11</td>
<td>Our library including those recommended by our tutors are user friendly to students with visual impairments</td>
<td>7 7 5 5 3 3 70 69 16 16 100</td>
</tr>
<tr>
<td>12</td>
<td>Tutor recommended text are also accessible to individuals with visual impairments</td>
<td>0 0 2 2 4 4 3 3 93 91 100</td>
</tr>
<tr>
<td>13</td>
<td>I have been offered access to assistive technology meant to make my learning least restrictive</td>
<td>6 6 7 7 1 1 50 49 38 37 100</td>
</tr>
<tr>
<td>14</td>
<td>I have benefited a lot through ODL</td>
<td>0 0 0 0 1 1 70 69 31 30 100</td>
</tr>
</tbody>
</table>
The respondents were asked to rate if they are being provided with mobility and orientation services by their centres when they attend face to face tutorials or when they come for exams. Results from this question indicated that 82% of ODL students with visual impairments were not being provided with mobility and orientation services by their institutions. Only 15% agreed that they were getting some form of mobility and orientation while 2% decided to be neutral. The respondents were also asked if their institutions have centers for disabilities. Only 16% of them indicated that such centers exist in their centres and 85% of them said that centers of that nature did not exist at their centres and 5% of the respondents decided to be neutral on the question.

Research Question 4: To what extent does the ODL print module mode of delivery assist students with visual impairments? To provide answers to the above research question numbers 10, 11, 12 and 13 were framed in a manner that if answered the research question would have been provide with adequate answer. Respondents were asked through question 10 if ODL modules they were using were available in large prints, braille, tapes and other forms suitable for their visual impairments. The respondents indicate that 84% the modules were not user friendly, 23% of the respondents said that the modules were user friendly while 5% decided to be neutral. The respondents were also asked to rate user friendliness of tutor recommended text to their disability. Most of them (94%) said that the recommended text were not user-friendly to their condition. The respondents (85%) also said tutor recommended libraries had no visual impaired user friendly textbooks. The last question asked to respondents to provide an answer to the above research question was whether their centres have offered assistive technology meant to make learning least restrictive. Only 13% believed that their institutions provided them with assistive technologies to make their learning least restrictive; 1% decided to be neutral; and 86% felt that nothing was being offered as assistive technology to make their learning user-friendly.

The study went further to ask the respondents if they were benefitting from ODL. The respondents were also asked to identify other challenges they were facing from ODL modes of delivery besides those identified by the researcher. They highlighted that while personnel at their learning centers seemed to have positive attitudes towards them they lacked basic skills in working with individuals with visual impairments and at times fail to make service preparations with them in mind. They said it seems they were being forgotten and are only thought upon their arrival or when they demand certain services.

DISCUSSION

The study set out to investigate the challenges faced by students with visual impairments with ODL modes of delivery in Zimbabwe. The discussion of findings of the study is presented below according to the four research questions.

Research Question 1: What is the level of Zimbabwean ODL Tutor preparation to teach students with visual impairments? The study found that almost all tutors teaching students with visual impairments have little or no formal training to teach individuals with visual impairments. Most of them were found not able to braille and transcribe. This implies that when students present their written work most ODL tutors will send it somewhere (not within university system) for transcription so that the tutors read and mark it. Such way of operating compromises the importance of immediate feedback since work from students with visual impairments may take time to return from hired transcribers. The other option is that the work of students with visual impairments is typed by someone for a student with visual impairment so that the marker, a braille illiterate tutor is able to read it. This again makes it more demanding for a student with visual impairment who researches first from libraries have his or her notes in braille read it again to a typist who will then read it again to the students before submission.

The study found that most tutors taking students with visual impairments in Zimbabwe lack basic training in issues concerning handling of students with visual impairments. These findings are similar to those found by Ingerson (1999) in Burgstahler (1999) in the United States.
who found that tutor/lecture preparation for teaching students with visual impairments both in ODL and conventional indicates that students with visual impairments lack qualified personnel to teach them. Open and Distance learning face-to-face tutorials requires tutors who can transcribe information into braille and who are able to teach mobility and orientation. Such tutors are very important because they make learning least restrictive for students with visual impairments. In addition, such tutors who are well informed in disability issues tend to have positive attitudes towards students with visual impairments (Mpofu et al. 2011; Mpofu and Zebron 2011).

**Research Question 2: What is the effectiveness of ODL mode of communication to students with visual impairments?** The study found that ODL modes of communications such as printed tutorial letters, time tables, and registration forms were not user friendly to students with visual impairments. Communication with students with visual impairments would be better if brailed or printed with enlarged prints or on tapes to meet communication needs as per individual. The possible cause for poor communication modes between students with visual impairments and their institutions may rest in the fact that ODL institutions may be practicing locational integration practices not inclusive practices. This may be true because institutions that provide learning for students with visual impairments seem to be contended with geographical location of the students rather than increased social or academic interactions of their students with visual impairments. The limited communication between institutions and their students as found in ODL modes of Communication robs away the chance of students with special needs to enjoy communication benefits with their centres like peers without visual impairments.

This study found limited communication between tutors, peers and students with visual impairments during face to face tutorials. The respondents said tutors and peers without visual impairments do not take cognisance that they are students different from them who have visual impairments and fast track explanations of grey areas of their modules living students with visual impairments with problems in taking notes. This makes students with visual impairments have very limited access to their curriculum. Learning institutions (Mpofu et al. 2011; Postlethwar and Hackney 1988 in Mpofu 2008) are expected to adapt their own structures, curriculum, social arrangements and mostly attitudes towards disability if they are to provide effective education to individuals with disabilities. There must be a functional relationship between learning institutions and clients they serve so that constructive interaction between students without disabilities, tutors and students with disabilities. Students with visual impairments should have the same opportunities as the rest of the society.

**Research Question 3: To what extent are students with visual impairments in ODL centres provided with mobility and orientation training during their face to face sessions?** The study found that no mobility and orientation services are provided to clients with visual impairments even though they have orientation days for newcomers. Activities for the day are not considerate of students with visual impairments. This leaves students with visual impairments to get social support from fellow concerned students rather than from their institutions. Results obtained from respondents indicate that almost all centres that do not offer mobility and orientation services to their students with visual impairments also do not have a disability unit to cater for students with disabilities. With such a scenario, there is no tolerant and compassionate and progressive relationship between institutions and clients they server. Mobility and orientation are very important to students with visual impairment (Badza et al. 2003; Chiinze and Tambara 2000) and needed most by those who learn through open and distance methods since they are not stationed at centers of learning because they are not always at the centers so that makes them understand each and every corner of their learning centers. Infrastructural administrative changes that takes place when they are away and such changes needs to be oriented to students with visual impairments time and again.

**Research Question 4: To what extent does the ODL module facility assist students with visual impairments?** The study found that some centres that provide Open and distance learning have standard printed modules which are not user-friendly to students with visual impairments. Their libraries had no brailed texts relevant to their studies, taped books or magnifying lenses
for students who can read enlarged prints. The study also found that tutor recommended texts were also not available in user friendly forms to students with visual impairments and their institutions were not offering them assistive technologies despite knowing that they enrolled students with visual impairments as indicated on registration forms. One of the primary concepts of open and distance learning is to offer students ‘learning anytime anywhere’ (Chimedza 2002).

CONCLUSION

Students with visual impairments studying through Open and Distance Learning were at risk of being adopted in “one size fits all” philosophy across different sub-groups of this population as indicated by the research findings. The present study concluded that:

(a) Open and Distance learning modes of communication do not take care of its clients with visual impairments because of its printed nature.

(b) ODL centres were not offering special support services such as mobility and orientation to its students with visual impairments living it to merciful peers who were not always available at call.

(c) most learning materials used by a good number of ODL centres were not user-friendly to students with visual impairments. Instead, ODL centres use ordinary print media or refer students to ordinary print textbooks that are of limited use to their students with visual impairments.

RECOMMENDATIONS

All distance education resources should afford students with visual impairment maximum opportunity to access distance education resource anytime and anywhere without the need for outside assistance (for example, module readers). Students with visual impairments need to have all their learning material brailed enlarged depending on vision loss.

Learning institutions that provide Open and Distance Learning services should strive to provide information in alternative format preferred by the student (brailed, audio tape, large print, than printed modules only).

Tutors and other personnel in Open and Distance Learning should be exposed to staff development programmes that are meant to make them possess basic braille skills, enhance their positive attitudes towards different others, offer support is such that a resource commitment to this endeavor should proceed even the development of a mission statement at institution level.

It is equally important that centres that offer Open and Distance learning services should develop inclusive practices that call for unconditional acceptance for its clients. This will force them to adopt inclusive approaches such as having user-friendly communication modes and tutorial methods that caters for individual needs.

All institutions that offer Open and Distance Learning should spare some of it valuable resources to opening of centers for students with disabilities. These will assist them in taking care of numerous special issues associated with students with disabilities.

ODL service providers should make sure that their core modules are presented to meet requirements of each and every learner. This may sound expensive but is in line with policy of inclusion as adopted by Zimbabwean Government on 27 March 1997. Zimbabwe is a signatory to the World declaration on Education for all (1990), the Salamanca Statement and Framework for action on special needs education; the Millennium Development goals focusing on poverty reduction and development (2000); and the EFA Flagship on Education and Disability (2001). Zimbabwe has also adopted growth equity as its principle for inclusive education. This then calls for tutors to consider making handouts of information that is referenced from textbooks to their students with visual impairments in order to take care of their specific needs.

REFERENCES


