

Managing inclusion of student with visual impairment in open and distance education: challenges for learner support

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Introduction

One of the constitutive aspects of distance and open learning (ODL) is essentially access to instruction and learning material by all students including those with disabilities and the disadvantaged. Issues of access and equity in open and distance education are critical in justifying the openness of distance education and the inclusion of students with disabilities (Sherry,1996). It therefore suffices to say that the hallmark of distance education lies in the separation, in both time and space, between the learner and the instructor and the 'volitional control of learning' by the student (Jonassen cited in Sherry 1996). In order to facilitate learning by distance education students, the material to be learnt should of necessity be interactive and user friendly. Learner support in this respect becomes invaluable as it ensures the interactivity of instructional materials with the cognitive dispositions of the students. Instructional models and materials in ODL are expected to make the students interact with the learning material in order to construct new knowledge. Horton cited in Sherry (1996) posits that the interactive theoretical basis of ODL comprise of two basic aspects which directly impact situated cognition. These two are the student's context (*environment, current situation, other sensory input*) and the mind (*associations, memory, reasoning, abstractions*). Following on the theoretical development of situated cognition in the design of ODL, instruction materials should enhance access for all. However according to Burgstahler (2002) the issues of access focus of the separation of student and instructor and rarely

include consideration of needs of students with disabilities. In order to establish the challenges for learner support for students with visual impairment (VI), it is imperative to interrogate the concept of inclusion, its pedagogical implications for the learner in the context of a universal design in ODL.

Background

Current trends in special education are moving away from prescriptive labels and categories however there still remains a plethora of specialised terms used to define aspects of VI by different professionals. Visual Impairment is defined as loss of vision for an individual to complete tasks without specialised adaptation, (Mason, McCall, Arte, McLindell and Stone, 1997). In other words, the loss of vision impedes learning unless modifications are made to teaching methods, materials and learning environment. The degree of impairment varies from low vision to total loss of sight (blind). The low vision category includes those with remaining or residual vision. According to Webster and Roe, (1998) people who fall into the category of 'blind' depend on tactile, auditory and other sensory input other than sight, as means of learning and require specialised equipment.

In addition to pedagogical concerns, issues related to school environment are of importance to the inclusion of individuals with VI. However, there are still ongoing arguments on whether to adapt the environment to suit the individual with VI. The reason behind adapting the environment for the individual is to ensure that the education system prepares the individual with VI for an independent role in the wider society that makes few adaptations. In order to achieve this functional level, limited adaptation to the learning environment should be made to enable the individual with VI to function independently and safely in the wider environment. Despite the merits of this argument, a careful audit of the learning environment needs to be considered to eliminate or minimise dangers to individuals with VI. Such adaptations should ultimately enhance the inclusion disposition of the individual with VI.

A clear understanding of the concept of inclusion is essential to enhance the successful and meaningful process of inclusion of student with VI in ODL. It is important to note that there is a continuous evolution on the definitions as reflections on practice is advancing taking cognisance of the range of contexts and cultures in which inclusion is taking place. Inclusion therefore reflects the reality in each national system and thus can be determined by the history, culture and politics of the system, (Dyson & Millard, 2000). Dyson and Millard's position makes it difficult to have a consensus or unified definition of the concept of inclusion.

Burgstahlers (2002), asserts that the designs of many distance education programmes inadvertently erects barriers for students with disabilities. While visual impairment impacts negatively access and inclusion of students in ODL, planning for access during

course development instead of creating *ad hoc* accommodation strategies on enrolment of student with impairments is proactive. Steps should be taken to ensure that a wide range of abilities and disabilities are considered following the universal design principles. One of the universal design principles is a recognition of the ideal that access to education is one of the basic human rights (Harrison 2001). Therefore accommodation of learners with special needs is essentially ensuring that access to high quality instruction is provided to all. Universal design principles ensure cognitive, affective and systemic learner support in ODL which reinforces student's confidence, self esteem and progress, (Tait, 2003). The preparation of instructional materials, using universal design principles in the context of Moore's theory on ODL, would enhance access and inclusion of students with disability.

Institutional policies that are crafted on principles of universal design and education for all (EFA) would inherently serve the interests of disadvantaged groups such as the people with VI. It is quite important to point out that mere university admission policy without ensuring access to curriculum and or learning material is still in some way exclusionary. It is therefore pertinent that the policy of ZOU be appraised in this respect.

Purpose

The study sought to establish the nature and adequacy of inclusion of students with visual impairment in the Zimbabwe Open University. The impetus of the study came from Moore's theory that in ODL "the space between the learner and the structure of teaching must be mediated by dialogue offering the learner the opportunity to be an active participant" (Tait 2003:4).

Methodology

The study used the case study strategy, a qualitative methodology to establish the adequacy of ZOU's provision of ODL to students with VI. The case study was found more appropriate in order to have an in-depth study of the challenges of managing students with VI in ODL. The case study approach allowed the researchers to study how the students view their situational access to learning materials. The design further enabled the researchers to come to an understanding of the experiences from the perspective of the learners.

The respondents identified for in depth interviews were purposefully selected in such away that they would reflect a diversity of backgrounds and a variety of personal dimensions. The respondents were ZOU students who were visually impaired, that is, they were either with low vision or legally blind. For the purposes of this study age and gender were not considered essential.

The main subjects of the study were a total of eight (8) students made up of five (5) males and three (3) females in the Post Graduate Diploma in Education, Bachelor of

Arts in English and Communication Studies, Masters of Business Administration and Bachelor of Special Education programmes selected for in depth interviews in their homes, offices and staff rooms. Six of the eight students were technically blind that is they could not process print information. Two of the eight students were partially sighted, that is they could process print information especially benefiting from enlarged print. The interviews which were done in five days took one to two hours per participant. All interviews were unstructured but guided by an interview schedule. The direction of the interview depended on each individual student's experiences. Therefore as data were collected the research focus was refined as new questions emerged from the interview. Specific questions emerged in the context of the students views.

Triangulation of data was employed by contrasting students information with that of regional directors, programme co-ordinators and librarians in order to enhance validity of the data. All interviewees were audio taped to supplement the written interview notes. The audio taped information was used to clarify and enhance the written notes during data analysis. In addition document content analysis of the ZOU student handbook and tutors handbook was carried out to establish the impact of policy on service delivery to people with VI.

Analysis

In qualitative research design, data collection and analysis are closely related such that data analysis was inductive and ongoing throughout the study (Bogdan & Biklen 1984; Taylor and Bogdan, 1984 and Guba & Lincoln, 1985). Audio taped interviews were examined, transcribed and compared with the field notes to identify insights, themes and concepts. Although the analysis was an ongoing process during the study there was a final stage intensive analysis that involved sorting data into categories and sub-categories to refine and identify frequently occurring themes. Verification of interpretative accuracy of analysis of data was done through presentation of preliminary findings to peers who have worked and interacted with some of the subjects. This process gave new insights and strengthened the position of some of the findings.

Findings and Discussion

The findings of the study were very elaborate as most of the participants in this category articulated their experiences and expectations very effectively. The documents' content analysis revealed that ZOU did not have a coherent institutional policy for service delivery and or learner support to people with VI and other disadvantages. The results as shown in some of the participant's excerpts indicated some salient exclusionary practices and practices that would enhance inclusion and or universal design in ODL. The findings were laid down under the following three themes, Knowledge and perception of ODL, student experiences and pedagogical concerns, and recommendations for ZOU.

Knowledge and perceptions of ODL

Most students seemed to have a good knowledge of ODL as a practice of learning for all or learning from home with flexible arrangements and time management. Other students appreciate it as it affords student an opportunity to learn while continuing with your vocation. The participants' perception of ODL was that it was a good practice that gave people with VI an opportunity to learn. Others said that ODL was,

A bit limiting, help does not come there and then.

And others said that;

...not much difficulties but a few problems with areas chosen e.g. calculations where one may need help.

These perceptions of ODL indicate that most of the students with VI found it quite acceptable and helpful to them despite some problems relating to the need for specific help at particular times. However some students with VI seem to suggest that it is not their right to be enrolled but a charity that ZOU is extending to them as indicated by the statements below.

...I have since commended ZOU for allowing students with visual impairment to do their studies with ZOU.

....Not everyone is blessed like myself.. may be I could have been told I can't be enrolled.

Such perceptions as indicated in the statements above are inconsistent with the spirit of inclusion that is based on rights and provision of equal opportunities in an education for all (EFA) perspective. Inclusive education, in the context of the Salamanca Statement and Framework of Action (1994), should therefore meet the educational needs of all learners within common yet fluid contexts and activities. Inclusion should not be seen as just an ideal state but rather an unending set of dynamic processes to adequately accommodate every learner's needs (Booth, 1996: Sapon –Shevin, 1992 in Engelbrecht, Green, Naicker and Engelbrecht, 2004).

Students experiences and pedagogical concerns

Participants had a variety of experiences ranging from ODL being an empowering and challenging opportunity to experiences of exclusionary practices that needed corrective measures in pedagogical aspects.

Some students believed that they had positive experiences as they 'enjoyed new knowledge' and competed with sighted students. One student said that;

The co-ordinator felt that I would not be able to impress the enroller although there were some who had done BAECES (Bachelor of arts degree in English and Communication Studies). As post grad..., they underrated my potential and thought the VI students could only manage first degrees.

Another student when asked whether his needs were met by ZOU he responded:

Not exactly! I had to run around to survive. I had no Braille material so I had to look for someone to read, find a group. It was difficult to get information.

The experiences of these two participants, while showing a positive attitude, indicated the possibility of exclusionary pedagogical practices in the ODL as practiced by ZOU. These practices were evident in the nature of learning materials, the tutorials, assignment marking and examinations practices. The main learning materials were a module for each course. The modules that were in print presented the following challenges;

Not always easy to get someone to read. Your study time has to be determined by someone who reads for you hence my performance might have been affected.

It was difficult because I could not access materials in print. It meant I was always late. Working with an assistant is always very difficult especially at night. Keeping her awake was a challenge..... Diagrams were difficult for the assistant to interpret for me.....Courses like computers and statistics were a challenge though I passed....it was difficult. Presentation is not appropriate for VI. There is need for simplification of some concepts.

Experience of limited Braille material made me accustomed to being read to. Audio cassettes would be a palatable move. I had to attend tutorials because I had problems with print modules.

I wouldn't mind braille for reading but its bulky.....tapes are user friendly.

Judging from the expressions in these excerpts, the participants preferred audio taped modules as braille materials were scarce and bulky and print modules always required an assistant who would determine the pace and time of study. Furthermore, indications are that no adaptations or modifications were made to the programme curriculum to suit the needs of visually impaired in courses such as statistics and computers that are known to pose great challenges to such individual. Thus as Lomofosky & Mvambi (2004)

assert an inclusive curriculum has to be adapted to meet the needs of learner rather than have learners fit the curriculum

The study observed that ZOU's service delivery to students with disability was inadequate because the instructional materials in the form of print modules were not user friendly to most people with visual impairment.

Participants had mixed experiences during tutorials presented by subject experts. Others had positive experiences as they had their presence felt while others found tutors oblivious of their presence and thus were not accommodated. Some of the participants expressed the following negative aspects;

Tutors didn't accommodate the VI student because they continued to write on chalkboards and use the overheads (projector) without making reference to the presence of VI students.

Tutors did not realise needs...also need auditory and group methods

Tutors... not aware of my presence and were not accommodating.

Participants' concern was that the tutors did not have adequate knowledge on how to communicate, service and accommodate students with visual impairment. Lomofsky & Mvambi (2004) pinpoint that teachers are central to successful inclusion. Teachers need to be sensitive to individual needs and characteristics of all learners in order to effectively support inclusion. In this regard instruction inherently requires differential teaching based on the characteristics and needs of the learning population.

The main point of contention was access to learning material in a media that was compatible with the learning needs of people with VI. Asked to comment about how the participants utilised library facilities the students experiences were as narrated below;

Going to the library There was no materials ... it was difficult using the assistant who is not well versed in getting information....she also is not knowledgeable about my area of study.

*There was no distinction between me and other students.
I could not get anything to borrow from the library due to media. Books (print) are not an appropriate media*

*The library does not have suitable material for those with low vision and blind.
There is need for a policy to specify our needs.*

The experiences of participants in accessing library information indicate some oversight on the real needs of students with VI as no Braille nor large print material were available. In addition the library staff were not inducted nor sensitised in serving people with VI. This situation is not consistent with Harrison (2006:2) who says "Accommodation of learners with special needs is part of the process of ensuring high quality educational experiences are available to every individual." The participants suggested that students with visual impairment require audio cassettes and Braille material to access instructional materials.

Yet another area of concern for the participants was the assistance given to students with VI during the examination process. Some participants reported limited support in the provision of Braille machine and for others there were no examinations in enlarged print. Other participants expressed that there was no distinction between them and other learners implying that no special arrangement were made for them as some required enlarged print of font size 16. Some participants expected special arrangements where there would be given a room to use a Braille machine without making noise for other students. Quite a number of participants suggested that they required 25% extra time in completing examinations as expressed in these statements;

I request for more time especially with calculations.....15 minutes per hour...such extra time.

Invigilators may not even be aware of use of technology or Braille when you need help. Students with VI .. we are usually forgotten.

The study observed that students with visual impairment require special examinations arrangements to accommodate their needs. ZOU unsystematically made ad-hoc arrangements to accommodate the needs of students with visual impairment during examinations. No policy was in place to regulate services for people with disabilities.

Communication problems were probed to establish how effective the university was interacting with students with VI. The participants with low vision indicated that communication by the university through letters and newspapers was adequate while those who are blind reported that it was a big challenge as notices in newspapers and notice boards were not accessible to them. Blind students preferred brailled communication and or telephone messages. One participant reported the following as depicting communication with the university

It was like chasing a wild cat....grossly inadequate!

Interaction between student and the respective tutors showed some students appreciating the use of telephones while others reported that tutors were not ready for

them such that they wrote on the board without pronouncing what they were writing. Also the participants showed differences in the experiences of interaction with sighted students within their tutorial groups. While others believed that they were accepted others had this to say;

Students with experience in special education are awaredon't have problems of stigma but ...others at first don't understand. Some even ask why you are among them. Usually they get annoyed with the noise of the Braille machine.

The assumption is that they accepted me but sometimes patronised me..... to the extent of offering to write notes for me. At first they would kind of look down upon you but once they realised your potential they even can pick us (by car).....the problem is of awareness.....

From these narratives, it is clear that participants express some degree of exclusionary practices such as patronisation and keeping of a distance by sighted students. It is also important to note that the participants acknowledge that other sighted students lack awareness.

Participants were given the opportunity to site any other challenges they encountered in the course of their studies with ZOU. A few of them indicated having challenges in statistical subjects as some of the formulas were difficult to manage. The challenge was not with the level of difficulty but with manageability of the formula signs and signals. In other words given the appropriate computer packages there would be no problem.

Another challenge was excessive expenses since the student with VI had to pay for the audio recording of the module or pay the reader/assistant. It was therefore obvious that the student with VI bore extra expenses than other students. For these students it would appear as if they are being penalised for having the disability.

The participants were allowed to say what they believed were challenges for ZOU in serving people with VI. The following two challenges were reported, that ZOU should provide appropriate learning material and that the material should be simplified in some concepts as indicated in the following statement;

When programmes were designed in ZOU, they did not have VI students in mind to the extent that examinations were not even in Braille.....no structure for braille.

The experiences of participants show a disparity between their expectations and the service they received. The service was inadequate and to a large extent inappropriate.

The participants did not feel a sense of belongingness to ZOU programmes rather they view themselves as an appendage to the rest of the student population. Some student did not feel that it was their right to enrol in ZOU programmes. These students remained grateful for ZOU's 'benevolence' in admitting them. Students in this frame of thinks cannot demand adequate and equitable service commensurate with their needs and characteristics. It is important that the concept of inclusion is discussed and implemented even in tertiary education. On the whole students experience brought out some exclusionary practices in the way ZOU assisted students with VI.

Recommendations

ZOU did not have an institutional policy to assist people with visual impairment and or other disadvantages. It is therefore recommended that ZOU like other ODL institutions should formulate a policy which will have the parameters for ensuring adequate learner support for students with VI and for those with other challenges.

Students with VI argued that ZOU should have a department to service people with disability if it was to be truly an ODL university. The department would ensure the provision of adequate learner support in terms of material and other pedagogical concerns

Conclusion

Issues of equity and access were fundamental to ODL in its service of students with disability. As indicated by Sherry (1996), instructional designers and curriculum developers seem to give precedence to technological advancement in instructional materials development at the expense of focusing on the underlying issues of learner characteristics and needs. The effect of accommodating learner characteristics and needs in instructional materials production impacts positively situated cognition within the constructivist paradigm in which the learner interacts with materials and constructs new knowledge thereof. The department could be staffed with qualified staff and computer equipment to assist with transcription from Braille to print and use of voice synthesisers for use by students with visual impairments in research and other operations. ZOU is therefore called to improve on the adequacy of service to people with VI in order to embrace and enhance inclusion in the institution.

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