

## **Provision of Open Distance Learning to students with Hearing Impairment in Institutions of Higher learning: the case of Zimbabwe Open University**

By

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### **Abstract**

*Students with Hearing Impairment experience learning problems in most institutions of Higher Learning in Zimbabwe. Access to college and university facilities is often limited and hence their needs are not catered for. Those learning through distance education are the most affected since they have to endure these problems alone. Thus for an institution like the Zimbabwe Open University (ZOU), where Open Distance Learning (ODL) is the mode of instruction, there is need to develop learning materials that would enable these students to learn effectively though they may be few in number. Students with hearing impairment in most higher learning institutions (ZOU included), have expressed experiencing difficulties in coping with their studies partly due to the fact that the learning materials used are tailor made for the mainstream form of education. This research is a descriptive survey meant to extract information from students with hearing impairment; so that solutions can be found on how to develop effective learning materials for ODL in Zimbabwe. A qualitative design was adopted as a way of assessing the needs and feelings of the hearing impaired students. By virtue of the small population involved, this approach was the most useful though besides Interviews, questionnaires were used to triangulate the findings from students, lecturers and support teachers.*

**Key words:** *Hearing impairment, Hard of hearing, Open Distance learning, learning material, Distance education*

### **Introduction**

Promoting the development of a knowledge society through open and distance education is one technique that has increasingly been adopted in recent times by institutions of higher learning in Zimbabwe. Distance education is a form of instruction characterized by

301

the physical separation of teacher from student, except for the occasional face-to-face meetings (Zigerell in Faibisoff and Willis 1987). Interaction is through the printed and written word, the telephone, computer conferencing or teleconferencing to bridge the physical gap between the instructor and the learner, thus bringing individual benefits that include occasional interaction with faculty, student independence, individualized study, and based on student needs (Faibisoff and Willis 1987). Distance education provides opportunities to those who otherwise would have been denied. However, as noted by Howell, Williams & Lindsay (2003) open distance education is also growing in importance as a mode acquiring knowledge for students with Hearing Impairment. This is despite a number of challenges associated with this instructional method faced by students and their instructors. These challenges include among others becoming and staying self - responsible; "owning" their strengths, desires, skills, and needs; maintaining and increasing self-esteem; relating to others; clarifying what is learned; redefining what legitimate knowledge is; and dealing with content. (Brundage, Keane, and Mackneson 1993)

### **Educating the Hearing impaired at the Zimbabwe Open University.**

At ZOU, students with hearing impairment constitute the largest percentage of all students with special needs in any given year, and hence, efforts to help them or failure to do so has been the most noticeable at the institution. 'Hearing impairment' refers to functional hearing loss that ranges from mild to profound. People who have no functional hearing are referred to as "Deaf." And those with milder hearing loss are referred to as "Hard of hearing."

The number of deaf and hard of hearing impaired students entering higher education institutions in Zimbabwe such as ZOU is slowly increasing. This increase reflects government efforts meant to increase access to education by students with special needs. In order to accommodate a diversity of learning needs to this group of students, education institutions are required by the government to provide support services to the learners, hence, the need for higher education institutions like ZOU who offers their tuition through open distance learning, to develop learning materials that support the needs of hearing impaired students. Currently the deaf and hard of hearing students that have enrolled for higher education degree programmes with the Zimbabwe Open University have expressed difficulties in coping with their studies partly due to the fact that the learning materials being used are meant for mainstream form of education. Deaf and hard of hearing students are disadvantaged by the lack of learning materials that meet their needs and hence this has always been a barrier for them to function well in mainstream higher education institutions. In cases where they managed to enter higher education, they faced academic and social difficulties which,

effectively interfered with their education. It is also important to note that Deaf people identify themselves differently; there are those who see themselves as members of the Deaf community and the oral deaf who use speech and hearing aids (Baker and Cokely 1980). Both groups are represented at ZOU.

ZOU conducts most of its learning through print study guides commonly referred to as 'Modules'. A Module has the advantage of being synchronous (real time and real place) as well as being asynchronous in both time and place (Lynch and Dembo 2004). In the absence of computers and other telecommunication media, the students can carry the module home and information is relatively reliable and tailored to the needs of the learner because it has been written by experts. Some of the learning material in modules is biased towards students without hearing problems since module writers lack skills in catering for the deaf and 'hard of hearing' learners. In some cases the examples and illustrations contained in the modules cannot be adapted for use by students with hearing impairment. Thus although the modules are an effective mode of instruction for ODL meeting the needs of the majority of the students, they effectively exclude those students with hearing impairment. The deaf as a group of people have their own culture that could be best understood by people familiar with such a disability who could be the best to develop appropriate illustrations and examples for them. This amplifies the need to develop relevant learning materials for this group of students.

ZOU also utilises face to face instruction and tutorials as other ways of facilitating ODL. These tutorials are important in distance education as they provide interaction between tutor and students. This is ironic in the sense that many disabled people turn to distance education to avoid the problems of access that are posed by face-to-face institutions of higher education (Richardson 2009). Worse still most of the so called 'normal students' and tutors find it difficult to interact with deaf students because they have no knowledge of sign language and so the hearing impaired students do not benefit from such face to face sessions. Thus the need to develop a conducive learning environment and relevant study materials for the hearing impaired students at ZOU becomes paramount. Indeed support infrastructure such as sign language interpreters, tape recorders, special computer hardware and software are also needed to meet their academic needs besides the modules mentioned earlier.

Lately, the print module has been substituted by the use of Compact Disc (CD) based modules probably as a cost cutting measure. The use of CDs is a noble idea but it has its own fair share of challenges even for students without disabilities. It should be remembered that for a developing country such as Zimbabwe, not all students who are computer literate. Thus CDs really present challenge. This is worsened by the fact that the majority of ZOU's students

stay in rural areas, and do not have computers and let alone electricity. ZOU has also introduced ZOU ONLINE an e-learning strategy, to help its students including those with hearing impairment. E-learning refers to the use of computer and internet based technologies to deliver a broad array of solutions that enhance knowledge and performance (Rosenberg, 2001; Marcal and Caetano, 2010). E-learning has demonstrated its potential by overcoming several limitations associated with conventional face-to-face instruction such as high costs and scheduled inflexibility (Bersin, 2004; in Marcal and Caetano, 2010) as well as geographical barriers (Juutinen et al, 2010). However the e-learning facility benefits the hearing student most. Although it is interactive in nature, in most cases the hearing impaired do not benefit much since some material included have voice based exercises and activities. The lecturers who prepare these texts do not have the skills to prepare the learning materials needed to meet the needs of the hearing impaired students.

### **The statement of the problem**

Prospective and current students in the category deaf and hard of hearing at ZOU encounter problems when enrolling, writing assignments and examinations and this may be partly due to lack of learning materials that meet their academic needs. In some cases they also experience academic and social difficulties hence there is need to develop learning materials that enable these students to learn effectively through Open Distance Learning.

### **Purpose of the study**

The aim of this study was to provide an in-depth exploration and needs assessment of how the learning materials for the Deaf and hard of hearing students could be developed, and how they could be assisted to achieve their full potential in the institutions of higher learning like ZOU. A secondary aim was to find out what access policies and support services are in place at ZOU in an effort to make ODL programmes more accessible to Deaf and hard of hearing students. The provision of the support service has a significant impact on Deaf and hard of hearing students in terms of equitable access and success in learning institutions. The experiences of deaf students with regard to support services are a complex phenomenon and research conducted in this regard has been inadequate (Brown & Foster 1991; Liversidge 2003). The development of learning materials for the Deaf and hard of hearing students at the Zimbabwe Open University as in other institutions of higher learning is therefore significant, as it fills the gap by catering for a group of stakeholders often overlooked in the Zimbabwean society.

### **Research Questions**

The study was guided by the following research questions:

- What Challenges do persons with hearing impairment face in learning through ODL in institutions of higher learning such as ZOU?
- How should the learning materials for the Hearing Impaired students studying through ODL be developed in order to meet their academic needs?

### **Data Collection Procedures**

The study was a qualitative case study involving deaf and hard of hearing students at the Bulawayo region of the Zimbabwe Open University. This approach was used as it enabled the researcher to obtain and interpret informants' meaning, perceptions, and experiences in their natural education setting (Denzin and Lincoln 2000, Neuman 2000). A purposive sample that included ZOU tutors and ZOU students in the hard of hearing category was used. As Leedy (1997) points out, descriptive survey design is one of the most effective ways of conducting research where feelings, perceptions and experiences are sought. This particular study sought to extract the views, opinions and impressions of ZOU staff and students on issues concerning registration, study materials, course outlines, modules, assignments, tutorial letters and attendance of face-to-face tutorials. Observation, interviews and structured questionnaires employed in the research. Questionnaires were physically handed and collected to and from the ZOU staff. Students collected their questionnaires from the researcher and completed them at the Bulawayo regional office on the same day. The researchers also felt that interviews were an important instrument if they were to access information about feelings, intentions, beliefs, knowledge and opinions. Though the sample was small (seven programme coordinators and lecturers and six hard of hearing students) it took a fairly long time to analyse the data and identify emerging issues, views, concepts, and recurring patterns sought through the interview guide. Interviewing students with hearing impairment, particularly the deaf through a sign language interpreter was the most daunting task and as such researchers feel that some vital information was lost in the process.

### **Findings**

The findings showed that Deaf and hard of hearing students have a different educational experience from their hearing peers in a mainstream higher education environment. They are exposed to more disadvantages than advantages. The modules that are used as the main mode of instruction in ODL are meant for students without disabilities. Yet the deaf have their own culture that is not infused in to the modules particularly the illustrations and examples given in the text. In addition, the language used in the modules may

be complex for the deaf to understand. Hence Mutsvanga and Chakuchichi (2007) point out that performance in literacy and numeracy of hearing impaired students falls well below levels achieved by their hearing peers.

The hearing impaired students and programme coordinators at ZOU make use of face to face discussions and tutoring as tools for Open distance Learning and this has its own challenges. The face to face mode of learning at ZOU creates an inclusive setting calling for bilingual education and for the deaf students it entails using sign language instead of spoken and the written word. Zimbabwe Sign language is not nationally understood by the hearing community and thus for study group interactions, the deaf cannot freely discuss with hearing students. Another important finding was that there is no one single sign language in use. A deaf student uses the sign language from the institutions he or she passed through and this creates problems even among the deaf students themselves. Equally problematic is the fact that there are no indigenous writing systems used by deaf people, and so they have to read and write in a spoken language such as English (Richardson and Woodley 2001). Sign language is based on English language and like any other Zimbabwean student, English language as a second language presents its own acquisition and syntax problems. Thus the hearing impaired students are worse off since they have to master English first and then transform it to sign language. Thus, in the final analysis, assignments become difficult for them to work on their own. Tutors cannot help since they are not literate in sign language. During instances where interpreters are employed, the quality of interpreting services becomes a factor. At present interpreting services provide access to most aspects of the student's educational life at ZOU. However interpretation services, though essential, are limited as there are very few people who provide such services.

Both ZOU tutors and hard of hearing could benefit a lot through internet and e-learning for teaching, learning and management of the educational process (UNESCO 2002). However, the interviewees mentioned that there is insufficient Internet infrastructure and unreliable internet connectivity and hence ZOU's ODL cannot reap the educational benefits brought by Information and Communication Technologies (ICTs). Another issue that emerged was that of the use of CD based modules. Interviews with the affected students revealed that the use of CD's needed re-examining. This actually confirms findings of an earlier study by Chadamoyo, Chabaya, and Chiome (2008 unpublished) who found out that CDs were not the most appropriate mode at that time to most students due to lack of computers and frequent power outages.

Lastly, it also emerged that there is a shortage of ODL skilled practitioners at the Zimbabwe Open University and this is a cause for concern as it compromises the quality of ODL programmes. Zimbabwe does not have a university or college dedicated towards the development of ODL practitioners at any level. Although ZOU is an ODL institution, it also does not offer degrees, diplomas or certificates in ODL pedagogy and philosophy. This problem was echoed by Machawira (2009) in a baseline study of Zimbabwe's higher education system. The ODL practitioners, if fully utilised can effectively facilitate the development of learning materials such as modules tailor made to meet the needs of all including those learners with special needs. This problem is not peculiar to Zimbabwe alone but is prevalent in the Southern Africa Development Community (SADC). The SADC region is still to benefit from the ODL Project launched in 2007 by the SADC secretariat, which aims in building capacity in ODL.

## Conclusion

A number of conclusions can be derived from this study. Firstly, deaf and hard of hearing students have a different educational experience from their hearing peers in a mainstream higher education environment hence there is need to produce learning materials that cater for the individual differences especially for the Hearing impaired. Secondly, the modules as a mode of instruction in ODL at Zimbabwe Open University are made to meet the needs of the majority of the students. The deaf have their own culture which has not been infused in to the text of the module. The language, illustrations and examples used in modules are not simplified for understanding by the deaf and hard of hearing students.

The third aspect is that face to face sessions and tutoring as tools for Open distance Learning create challenges for the deaf and hard of hearing students, since most tutors have little or no knowledge of sign language, and even among the affected students themselves, there are many different forms of sign language.

Lastly, the shortage of ODL skilled practitioners effectively affects the hard of hearing students more than their hearing counterparts. Thus it is important that school system prepares deaf and hard of hearing students adequately for higher education, though there is no guarantee that Deaf and hard of hearing students will have positive academic and social experiences in higher education institutions. More thought should be put into the development of modules so that they cater for the needs of the deaf and hard of hearing and that the Hearing impaired are able to develop their full potential in Open Distance learning. Engaging various organisations dealing with disability issues would help in this regard. It may be necessary to set up a centre for disability support whose role would be to offer support

services to the disabled and advise other departments on issues of catering the disabled, otherwise learners without support are likely to delay completion of a program or drop-out altogether (Rumble 2000). A cue could be taken from other regional Universities such as the University of Botswana, which has a well established and efficient disability support service. An exchange programme for staff could help. The last recommendation is that ZOU should embark on capacity building by initiating courses in sign language for its staff and other members of society, with the hope to initiating a national sign language foundation. This would help society to acknowledge sign language as the first language of the deaf.

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