

## **COPING WITH ODL STUDENT'S CHALLENGES IN THE TEACHING AND LEARNING OF TECHNICAL PROGRAMMES**

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### **ABSTRACT**

Despite the teaching and learning challenges affecting ODL institutions and also the students, ODL institutions have continued to grow to offer a variety of educational programmes. This qualitative study employed a case study research design and sought to explore the challenges that are faced by undergraduate first year students enrolled in technology skills development degree programmes at the Zimbabwe Open University. The research participants comprised of two lecturers and twenty students who were selected using a combination of purposive and convenience sampling and key informant interviews were the main data generation tool used in this study. The study found out that the main challenges that are faced by the students include lack of ICT skills and tools. The author recommends that the institution should equip all staff members in the concerned faculty and departments with more ODL teaching and learning skills through orientation seminars and workshops. The institution may also consider increasing the number of face to face tutorials sessions for the degree programmes offered in the Faculty of Information and Technology and Multi-Media Communication and this can only be done by increasing the number of lecturers in the faculty

**KEYWORDS:** challenges, learning, teaching, ODL, ICT

### **1.0 INTRODUCTION**

Open and Distance Learning (ODL) is a rapidly growing field of education and its growth has been catapulted by the growth and development of ICTs (Ghosh, Nath, Agarwal and Nath, 2012). Naidu (2006) avers that ODL was founded on the principles of flexible access to education and also aimed to allow adult learners who could not attend conventional tertiary education institutions to study at a time, place, and pace that suited their convenience. Therefore, the major benefits of ODL are related to its flexibility, accessibility, affordability and lifelong opportunities (Musingafi, Mapuranga, Chiwanza, and Zebron, 2015).

Zimbabwe Open University (ZOU) is a state ODL higher education institution which was established in 1999. ZOU's initial programmes were mainly related to educational issues but with its expansion, the institution has grown to six faculties under which various degree programmes and diplomas are offered and managed and one of the most recent faculties is the Faculty of Information and Technology and Multi-Media Communication. The Faculty of Information and Technology and Multi-Media Communication offers degree programmes which include the Bachelor of Software Engineering, the Bachelor of Information Technology, the Bachelor of Science Honours in Multimedia Technology and the Bachelor of Science Honours in Network Computing. The

programmes that are offered in the Faculty of Information and Technology and Multi-Media Communication are technical and have a practical component. The faculty aims at producing graduates who are relevant in meeting computing needs, designing, implementing and evaluating computer based systems (ZOU, nd).

But ODL students are generally known to face various challenges due to the distance between the learner and the teacher (Musingafi et al, 2015). It is therefore not surprising that many studies that are available focus on the challenges that are faced by ODL students especially in the use of Information Communication Technologies (ICTs) in teaching and learning and not necessarily on the challenges of offering technical and practical degree programs through ODL such as those that are offered at the ZOU's Faculty of Information and Technology and Multi-Media Communication which require technology skills development. This study therefore sought to explore the challenges that are faced by undergraduate students in the Faculty of Information and Technology and Multi-Media Communication at the ZOU.

## **1.1 STATEMENT OF THE PROBLEM**

Undergraduate students in the Faculty of Information and Technology and Multi-Media Communication at the ZOU are experiencing challenges in their studies. This is evidenced by poor performance and or low grades especially during the first year. There are many studies that have been done that focus on students' performance in ODL but the studies do not focus on information, technology and multi-media courses. Most of the studies focus on the challenges of using ICTs in the teaching and learning process in ODL institutions. Others focus on the general performance of ODL students, for example, a study by Letseka and Karel (2015) who indicated that pass rates in Open Distance Learning institutions are generally known to be low. It is in the interest of the concerned institution and faculty in question to address the challenges so that they produce competent graduates who possess the relevant skills. While students in other faculties at the ZOU are using technology to learn, those in the Faculty of Information and Technology and Multi-Media Communication are not only using technology to learn but they are learning about the technology hence they need special attention. This study therefore sought to explore the challenges that are faced by undergraduate students in the Faculty of Information and Technology and Multi-Media Communication at the ZOU.

## **1.2 RESEARCH OBJECTIVES**

The following objectives guided this research study:

1. Examine the challenges that are faced by the students in the Faculty of Information and Technology and Multi-Media Communication at the ZOU.
2. Propose solutions that can be employed to ease the students' challenges.

## **1.3 RESEARCH QUESTIONS**

The following research questions guided this study:

1. What are the factors that influence the challenges that are faced by the students in the Faculty of Information and Technology and Multi-Media Communication at the ZOU?
2. What solutions can be employed to ease the students' challenges?

## 1.4 RESEARCH METHODOLOGY

This case study research was informed by a qualitative research paradigm. The research focused on first year students and also lecturers in the Faculty of Information and Technology and Multi-Media Communication at the ZOU. A case study allowed the researcher to probe deeply into the experiences of the students at the ZOU's Faculty of Information and Technology and Multi-Media Communication. The research participants were selected using a combination of purposive and convenience sampling and they comprised of twenty students and two lecturers in the Faculty of Information and Technology and Multi-Media Communication. In this study observations, documentary analysis, face to face and also telephone semi-structured interviews were used to gather data from July 2017 to June 2018. The documents that were analysed comprised of students' assignments and students' queries as posted on students' WhatsApp platforms.

Qualitative data was in the form of interview transcripts and texts generated from documentary analysis. To make sense out of the generated qualitative data in this study, the authors took several steps which are described in (Creswell, 2009) as:

- Organising, preparing the data, and making general sense out of the information
- Coding the data, generating descriptions and themes
- Data interpretation

## 1.5 REVIEW OF LITERATURE

Open and distance learning (ODL) is defined by the Commonwealth of Learning (2004) as

“a way of providing learning opportunities that is characterised by the separation of teacher and learner in time or place, or both time and place; learning that is certified in some way by an institution or agency; the use of a variety of media, including print and electronic; two-way communications that allow learners and tutors to interact; the possibility of occasional face-to-face meetings; and a specialised division of labour in the production and delivery of courses”.

The benefits of ODL institutions are rooted in its openness and flexibility (Cosmas and Mbvette, 2009; Alfonso and Garcia, 2015; Naidu; 2006; Keegen 1996) but despite the benefits, ODL students face a variety of challenges which according to Musingafi et al (2015) can be grouped into institutional, individual and instructional challenges. The challenges are a result of the distance between the lecturer and the learner which according to Moore (1980) is not simply a geographic separation of learners and teachers, but also pedagogical concept.

Institutional challenges include poor infrastructure as Yizengaw (2008: 1) notes that “the higher education sector in Africa faces challenges related to critical shortage of quality faculty; limited

capacity of governance, leadership and management; inadequate financial support and problems of diversity funding; inadequate facilities and infrastructures; problems of quality and relevance of teaching and research; limited capacity of research, knowledge generation and adaptation capabilities; and problems in meeting increasing demand for equitable access". Mohamed bhai (2008) also reiterates the challenges mentioned by Yizengaw (2008) and argues that African higher education institutions "...have experienced institutional massification but with no adequate planning and with no proportionate, accompanying increase in resources (human, financial, physical) to enable them to cope with the situation". With or without massification, it is a fact that higher education institutions in developing countries lack adequate resources. This therefore creates problems for teaching and learning particularly for technical and practical subjects under ODL conditions.

According to Musingafi et al (2015) and also Kadziyaand Mashatise (2012)poor logistics system or a lack of appropriate advising and student support are some of the institutional challenges faced in teaching and learning in ODL institutions. Sukon, Boojihawon, Gatsha and Panchoo(2012) argue that inadequate ICT infrastructures in rural areas remain a major source for the digital divide in Africa and for under-performance of distance learners. But when it comes to the teaching and learning of more technical and practical degree programmes such as Software Engineering, the challenges become more pronounced for both the student and the teacher. A study by Bitegeko and Swai (2012) showed that some of the major institutional challenges experienced at the Open University of Tanzania included delays in availing of study materials as well as lack of study materials.

Individual challenges include personal attitudes and feelings of the learners as well as students' self-efficacy and abilities. Minnaar (2013) notes ODL providers and academics face the challenge of enrolling and registering weak students who were rejected at other conventional institutions. Thus according to Minnaar (2013) the combination of very young weak students, professional enhancement students, and traditional students could challenge teaching and learning strategies in ODL. Thus ODL lecturers are faced with the challenge of meeting the diverse needs of ODL students.

Though the profile of ODL learners has been changing over the years especially in terms of age and employment status in Zimbabwe, Zinyama and Ndudzo (2015) affirm that ODL students are typically adults who apart from shouldering family responsibilities are also part-time or full-time job holders. Thus ODL students' individual challenges emanate from their diverse roles and responsibilities that entail adulthood. Individual learner challenges therefore, include financial challenges, time management and social problems to mention just a few (Musingafi et al, 2015).

At the University of South Africa (UNISA), Liebenberg, Chetty and Prinsloo (2012) revealed that ODL students lacked access to the internet and also that not all students were proficient in ICT usage. The same study also indicated that access to the internet varied according to gender and race.

According to Liebenberg, Chetty and Prinsloo (2012) most students who did not have access to the internet were typically African females between the age of 20 and 29. This therefore, indicates that challenges that students' face will vary due to other social factors including gender and the related socio-economic status of the respondents.

## **1.6 DISCUSSION OF FINDINGS**

### **Lack of ICT knowledge, exposure and tools**

Though the students have a passion for ICT degree programmes, the lecturers indicated that Information Technology was totally new to many of them and this posed teaching and learning challenges. More so, due to limited prior general knowledge of ICTs, the lecturers were also concerned that most of the students took a long time to get used to ODL and Myvista (ZOU's Learning Management System). Thus due to limited exposure to ODL and ICTs the lecturers also revealed that most students hardly ever logged on to the Myvista platform, thereby missing out on the various learning activities and resources which are put there for them. Logging on to MyVista is important considering the fact that ZOU is now shifting from the traditional ODL mode towards Open and Distance E-Learning or blended learning.

The students also indicated that they lacked access to the internet for study purposes at home or at work yet MyVista requires not only internet access but ICT gadgets especially a computer. Thus for students and also lecturers this creates challenges as students will have to rely more on face to face tutorial sessions and also travelling to the Regional Campuses to access the internet. Access to ICT gadgets and internet are common challenges for higher education institutions in Africa and more so for ODL institutions. A study by Liebenberg, Chetty and Prinsloo (2012) also revealed internet access challenges at UNISA and Musingafi et al (2015) also cited lack of experience with instructional technologies as one of the challenges faced at the ZOU.

### **Weak Background in Maths**

Apart from lack of ICT skills and knowledge, the lecturers also cited that most students struggled with Maths courses such as Mathematical Foundations and Discrete Mathematics, yet the faculty aims to produce a graduate who has the "ability to apply knowledge of computing and mathematics appropriate to the discipline" among other things (ZOU, nd). Struggling with Maths courses may be a consequence of poor backgrounds in Science, Technology, Engineering and Mathematics (STEM) subjects as most primary and secondary schools in Zimbabwe are not fully equipped for STEM, thus students reach universities with weak or insufficient STEM skills in general.

### **Financial Problems and Late Registration**

This study also obtained that due to financial problems students usually delay to register for the various courses and as a result they lose out on time to prepare for course work. Financial issues are a characteristic of not only economic challenges facing Zimbabwe but also of the characteristic nature of ODL students as noted by Zinyama and Ndudzo (2015).

Due to delayed registration, lecturers also revealed that some students performed poorly in assignments. Documentary analysis showed that some assignment seemed to have been hurriedly done and it also seemed in some cases that the students did the assignments for formality's sake as students are not allowed to write examinations without coursework. Observations also revealed that students faced challenges in attempting activities and questions given to them by the lecturers during the tutorial sessions. Though poor performance can be attributed to late registration, it can also be a consequence of all other challenges affecting students especially lack of ICT knowledge and lack of access to ICT tools as already mentioned in this study.

### **Time for Tutorial Sessions**

The students in the Faculty of Information and Technology and Multi-Media Communication indicated that the face to face tutorial sessions were too few and that the semester which is a period of six months was too short for some technical aspects and courses such as Computer Programming, Database design, Web Programming and so on. Though the students did not specifically mention that time was an issue, mentioning that tutorial sessions are too few and that the semester is too short is an indication that time management is an issue for the students. The students also concurred that the courses are too difficult to grasp if not taught face to face and the struggle with the maths modules as already indicated cannot be over emphasised. This is also worsened by the fact that most Regional Campuses at the ZOU do not have a qualified lecturer in the fields of information technology, software engineering, multimedia technology and network computing thus the programmes offered under the Faculty of Information and Technology and Multi-Media Communication are being managed (at local or regional campus level) by lecturers who are clueless of the field. Most students therefore have to rely on lecturers who are based at the Faculty's national office and too far from some Regional Centers. Though Kadziya and Mashatise (2012) in their study identified similar issues, in this study lack of a qualified lecturer in the field of Information and Technology and Multi-Media Communication is a serious challenge for the students considering the skills they are required to have possessed at the end of the four-year programme.

The students also felt that it was necessary that the due dates of assignments fall after the first face to face tutorial session is done so that they get guidance on how to tackle the assignments. At the Zimbabwe Open University three tutorial sessions per course per semester are held and due to infrastructural challenges sometimes the spacing of those tutorial sessions becomes a challenge.

It is important to note that despite all the other challenges, the students indicated that they were satisfied with the quality of tutorials that were offered in the Faculty of Information and Technology and Multi-Media Communication.

### **1.7 CONCLUSIONS**

Based on the findings of this study, the following conclusions were made:

- The ODL students in the Faculty of Information and Technology and Multi-Media Communication are facing challenges which are mainly rooted in the ODL nature of the institution and also individual challenges which are a factor of ODL students' characteristics.
- The institutional challenges faced in the teaching and learning process within the Faculty of Information and Technology and Multi-Media Communication from the students' point of view include the number and spacing of tutorial sessions.
- The individual students' challenges included lack of ICT skills and internet access and also financial problems which prompt delays in registration.
- Delayed registration due to financial and other reasons is leaving students with limited time to work on assignments and to prepare for the examinations.
- A clash of students' individual challenges and institution related challenges provide a mix of difficulties that need to be addressed for effective teaching and learning in Faculty of Information and Technology and Multi-Media Communication

## 1.8 RECOMMENDATIONS

Based on the conclusions made, the following recommendations were made:

- The Faculty of Information and Technology and Multi-Media Communication should consider equipping all regional campuses with qualified staff members (lecturers) who are able to assist students so as to bridge the distance between students and the teachers.
- There is need for the Faculty of Information and Technology and Multi-Media Communication to employ more formative assessment instead of relying on summative assessment.
- Student support services in the Regional Campuses and District Centers should have a clear understanding of the needs of students enrolled in the various programmes that are offered in the Faculty of Information and Technology and Multi-Media Communication so that more relevant support is offered.
- Induction and orientation workshops for new students in the Faculty of Information and Technology and Multi-Media Communication should be stressed so as to equip students and also new lecturers with a better understanding of the ODL mode of education especially for practical courses such as Software Engineering and Network Computing.

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