Transforming Teaching and Learning through Technology: A Case Study of the Institute of Extra Mural Studies of the National University of Lesotho

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Abstract: *Despite the recognised need for the use of adequate and relevant technological devices in the distance mode of learning to transform teaching and learning, the Institute of Extra Mural Studies (IEMS) of the National University of Lesotho (NUL) faces an enormous challenge of adopting the use of desirable technological devices. The IEMS is mandated to widen access to educational opportunities through distance education. This mode of learning separates learners from the teaching institution as well as deprives them of regular contact with their peers. Hence, it is mandatory that students be able to access learning materials from various technological devices to enable them achieve their academic goals.*

Students enrolled in the Adult Education Programme (ADE) are geographically separated from the institution because of the nature of the mode of learning they have opted for. The distance mode of learning deprives learners of access to learning resources available at the institute. Therefore, learners have to supplement the prescribed self-instructional materials by accessing additional information through various technological devices.

Primarily, the study investigated the usefulness of technological devices in ADE in distance mode at IEMS. Qualitative data was collected from 20 students and 10 academic staff through focus group discussions. Findings from the study revealed that there was dissatisfaction regarding technological support. The students have minimal access to computers either at the main centre or designated regional centres. In addition, participants also reported that IEMS did not equip them with relevant and adequate technological skills to prepare them for the world of work. Interventions to improve use of relevant technological devices to transform teaching and learning are suggested.

Keywords: Adult education, Distance learning, ICT, Lesotho

Introduction

Lesotho is one of the Southern African countries landlocked by the Republic of South Africa (RSA). In the Lesotho context, learning at a distance often means that students are geographically separated from teachers and the institution of learning. The mandate of the IEMS is to bring the University to the people. Therefore, it has established regional centres in remote parts of the country such as Mahobong which is in the northern part of the country and Mohale's Hoek that is situated in the southern part of the country.

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The main campus of IEMS, which is also regarded as the headquarters, is in Maseru the capital of Lesotho. Regional centres, as well as the Maseru Centre, serve as study centres where learners attend monthly face-to-face sessions and also appear for their examinations. The IEMS has managed to reach out to individuals who would not qualify for admission, by employing the strategies of openness and the distance learning method. Learners enrolled in the degree in ADE are individuals who have the desire to further their studies in order to improve their competence levels. However, like their counterparts in other parts of the world as well as in the developing countries, these students cannot afford the cost of full time studies because of their multifarious responsibilities in society. The ADE degree programme uses two modes of operation, namely one week residential programme in a semester, and monthly face-to-face meetings of one weekend of two days. The course duration for the degree programme is four years. However, students are allowed up to seven years for completing this degree. The failure on the part of the IEMS to use technological devices as support for students is a shortcoming that may have negative and undesirable results for students. Primarily, the use of various technological devices at IEMS can enable learners to access relevant learning materials and this will promote the provision of desirable student support. Therefore, the study highlights various opportunities which IEMS can avail of in an attempt to transform teaching and learning.

Learners profile

The majority of distance learners in the African continent are adults who have full-time jobs and other multiple responsibilities and obligations. Since most distance learners do not live in close proximity of their institution of learning they are often not able to access resources such as libraries and do not have regular teacher and peer contact enjoyed by conventional learners (Koul and Bhatt, 1989). Therefore, distance learners are disadvantaged in terms of accessing institutional resources due to their geographical separation from their learning institutions and are also geographically separated from their peers. Hence, it is imperative that distance learning institutions provide learners with relevant and adequate technological devices that could support learning.

In the context of Lesotho, the majority of students enrolled in distance learning programmes are adults who have multiple responsibilities and face some of the challenges experienced by most distance students globally. For example students enrolled in ADE are adults in most cases and are employed in different government and non-governmental organizations (Makhakhane, 2012; Mohasi and Lephoto, 2010). Lesotho College of Education (LCE) also offers a Distance Teacher Education Programme (DTEP) aimed at upgrading qualifications of unqualified “in-service” primary school teachers. Similarly, most students enrolled in the DTEP are also adults who equally have multiple responsibilities and face similar challenges like other adult students (Molapo-Kabeli, 2013 and Kolosoa, 2007).

Electronic media/infrastructure

Currently, there is a great demand for accessibility of relevant technological devices in the distance mode of learning and several authors reported about the significant role of technology in facilitating teaching and learning in institutions of higher learning (Baltaci-Goktalay and Ocak, 2006; Marginson, 2006; Monsakul, 2007; Rogers, 2004; Turner et. al., 2009.) Consequently, the use of telephones, radios, mobile devices, computers and television has become important. Modern technology has contributed to the availability of information

(Daniel, 2006), even though some developing countries often do not have the necessary infrastructure and connectivity that can facilitate easy access to desired information.

In Lesotho, the geographical position being surrounded by the Republic of South Africa has adverse implications on the economic and technological infrastructure of the country. For example, the country's unsatisfactory economic status has an impact on the allocation of resources that can facilitate implementation of relevant technology at distance learning institute such as IEMS to promote access to e-learning information (Kolosoa, 2010).

a) Telephone

The telephone is identified as a relevant and viable student support in distance education system (Gibbs, 2002; Kaye, 2002 and Simpson, 2002). Telephone can be one of the technologies which can also be utilised in Lesotho to enhance teaching and learning. Kolosoa (2010) in her study on the use of telephone in Lesotho revealed that a majority of tutors who participated in the study had regular contact with learners by telephone. According to Lesotho Telecommunications Authority there were 23,000 subscribers in 2003 and 43,000 lines were in use in 2014 (Lesotho Telecommunications, 2014). The reported increasing number of telephone subscribers in Lesotho suggests that telephone can be a viable student support for distance learners in the country.

Gaskell and Mills (2006) point out that student support through telephone for distance students has been in existence since 1970. They described three types of telephone support as: proactive contact between institutions and the individual student; responsive contact between the tutor and the individual student; and planned tutorial by phone. Proactive contact with the institution involves contacting students shortly after enrollment to offer them support and encouragement. Regular communication by telephone with students to assess and monitor their academic progress is reported as essential for improving students' retention rates. With regard to the proactive contact from the tutor, Gaskell and Mills (2008) state that if tutors, prior to submission of the first assignment contact students, the chances are that they may score good marks. Additionally, it is reported that telephone contact is effective for initial support compared to e-mails or letters (Gaskell and Mills, 2006). Responsive contact pertains to tutors responding to questions and comments of the distance learners. Telephones are also considered as more effective in facilitating a content based discussion by the tutor and student within a short period of time, compared to the process of sending several e-mail messages. This kind of exercise is considered as tutorial contact from the tutor.

b) Mobile phones

With the rapid increase in the use of cell phones in developing countries (replacing the traditional telephone in many instances), mobile devices can provide an additional and often easy way of communication and support. It has also given rise to the practice of mobile learning. Mobile learning (m-learning) is an innovation that has been applauded by most developing African countries offering programmes through the distance mode. Viljoen, et al., (2005) refer to m-learning as "the use of mobile devices and mobile phones for teaching and learning". Daniel (2006) also concurs that mobile phones can be very effective in facilitating communication with students

on academic and administrative issues. Brown (2006) claims that the mobile phone offers students in remote areas and professional distance students who are constantly travelling on business, an opportunity to access support services. M-learning is considered as a feasible option due to the rapid expansion of the cell phone industry and in view of inadequate infrastructure for communication technology in most developing countries in Africa (Brown, 2006).

The use of mobile phones in Lesotho is reported as growing tremendously, the following figures have been provided to demonstrate the estimated growth; in 2010, 49 per cent; 2011, 66 per cent; 2012, 75 per cent and 2014, 86 per cent respectively (Lesotho Telecommunications, 2014). However, most unfortunately there has not been much effort to introduce M-learning by most of the institutions including IEMS in Lesotho that have adopted the distance mode education.

c) Radio

For most African countries, including Lesotho, radio is still regarded as a feasible educational option for teaching adults, as well as primary and high school learners (Kolosoa, 2010). Couch (in Arulchelvan and Viswanathan, 2008) states that although television is preferred to radio, radio is easily accessible to a fairly large number of people at reasonable costs. Most importantly, Arulchelvan and Viswanathan (2008) report that some universities have established that a radio can serve as a supplementary device for slow students. In addition, radio can also facilitate curriculum content with which some teachers are not conversant (Arulchelvan and Viswanathan, 2008). In countries such as India, educational radio also has a facility that allows the audience to have discussions and ask questions. Furthermore, Satyanarayana and Sesharatnam (in Arulchelvan and Viswanathan, 2008) suggest that radio is effective in facilitating remedial tutorials. Furthermore, they also claim that distance students tend to listen to radio programmes more frequently than conventional learners. This makes the radio an effective and viable medium of instruction in developing countries such as Lesotho, Botswana and Malawi (Arulchelvan and Viswanathan, 2008).

d) Computers and the Internet

Computers and the internet are technologies preferred by distance students, since they enable them to access a vast amount of valuable information within a relatively short period of time (Arulchevan and Viswanathan, 2008). According to Beldarrain (2006) these technologies enable distance students to easily access learning resources from different locations. Beldarrain (2006) also emphasises that technology has the capacity to promote communication and collaboration among distance students by making use of e-mail, social media, blogs, wikis and more. Arulchelvan and Viswanathan (2008) concur that the internet allows students to access learning resources and also permits them to interact with peers and any other groups of their choice. Nowadays, most students use the internet to access information in various academic areas, including career advancement and career management (Arulchelvan and Viswanathan, 2008). Therefore, the internet has the capacity to provide more information compared to the radio (Arulchelvan and Viswanathan, 2008). However, Verma and Lata (2006) mention that mostly, due to financial constraints, many students in the poorer countries in Africa cannot afford to buy computers for learning; thus, institutions in those countries provide student support to distance students through other relevant and affordable means such as radio services instead of computers.

e) Television

Television is described as one of the mediums of instruction that can successfully be adopted to promote effective teaching and learning. Arulchelvan and Viswanathan (2008) claim that educational television captures students' interest and can motivate students to perform satisfactorily in their academic work. According to these authors, the combination of sound and picture provides a representation of reality and thus, enhances learning. They argue that institutions should promote students' access to television sets at their respective learning centers to enable students to watch educational programmes. Primarily, the authors propose that institutions should introduce relevant television programmes which can address the academic needs of students (Arulchelvan and Viswanathan, 2008).

Methodology

The qualitative approach was employed to collect data, because of the assumption that it affords participants adequate opportunity to voice their feelings and thoughts about the issue under investigation. Focus group discussions were the qualitative mode of inquiry adopted to investigate perceptions of students and academic staff about the use of technology at IEMS. Focus group discussions were used because of their unique nature of providing an opportunity for participants to share and compare their experiences during the planned discussions. An interview guide which comprised open-ended questions was used during the student and academic staff focus group discussions.

The samples that participated in the study were drawn from ADE students and academic staff. 130 students enrolled in the ADE degree programme participated in the study, as enrollment is relatively low because students do not receive any financial assistance towards fees, as a result of which they cannot afford to pay the required fees because of poor financial status. The total number of ADE students who were selected to participate in two focus group discussions was 20. Each focus group discussion comprised 10 students. ADE is a four year programme and all the levels were represented in the focus group discussions. Strategically, students' focus group discussions were conducted at the Maseru Centre during the residential week. Ten tutors also participated in the focus group discussion which was also conducted during the residential week.

Findings

a) Cell phone and Telephone

The majority of academic staff as well as student participants reported that they owned a cell phone; however, academic staff stated that they were not happy about having to use their cell phones to communicate with students on academic issues. For instance, the tutor participants at the Mahobong regional centre mentioned that they were very unhappy because there was no landline telephone at the centre; therefore, they had to use their personal cell phones frequently to communicate with the regional coordinator and students at a cost to themselves.

b) Computer and Internet

The issue of inadequate computers and lack of internet facilities at all centres was yet another concern which was raised by both the academic staff and students. The general feeling of participants was that the institution had to try to improve upon the unsatisfactory conditions. Dissatisfaction about inadequate computers and lack of access to the internet was a legitimate concern in view of the fact that unavailability of technological resources such as computers with internet facilities restricted students and instructors from accessing relevant information that could promote effective teaching and learning.

c) Radio

Participants also reported that the NUL had secured a slot on the local radio station aimed at disseminating information about the University, its programmes and activities. However, a majority of the participants claimed that the ADE department had not adequately used the radio programme for educational purposes. According to participants, radio programmes are accessible even in the remote parts of the country and they also claimed that radio can be purchased at a relatively affordable price, hence, the general feeling was that radio was a viable option to use for teaching and learning in Lesotho.

Conclusion and Recommendation

The investigation exposed the shortcomings with regard to adequate use of technology at all designated IEMS learning centres. For example, academic staff and students were dissatisfied with the minimal utilisation of the university website and the secured slot on the national radio station. Access to computers with enabled internet connectivity was also described as a great concern by students and academic staff. The general feeling amongst participants was that, since most academic staff and students own cell phones, m-learning could be introduced as an innovation to facilitate effective teaching and learning.

The study has identified opportunities which could be exploited at IEMS, hence, the following recommendations could be considered in an attempt to improve upon the use of relevant technological devices that can enhance provision of quality distance education as well as transform teaching and learning at the institute:

- Investigate how to utilise the university website fully (e.g. for student registration, communication, access to learning materials and learning activities)
- Explore how to fully utilise the radio for tutorials and information dissemination
- Make more computers with internet facilities available at all centres
- Investigating the feasibility of recording lectures on CD and DVD
- Provide wider administrative and academic support by use of cell phones

Students and educators can use technology to improve the process of teaching and learning. Since distance learners are different in their learning styles, the use of various technological devices can facilitate flexible interaction and personalised instruction. For

instance, technology could be used as a teacher to teach and reinforce learning. In addition, it could also serve as a tool to explore and store information. In essence, taking cognisance of the advantages that have been highlighted with regard to the use of technology as support for students, one may argue that the use of technology can have positive results during the learning process and this may result in assisting learners accomplish their desired academic goals as well as transform teaching and learning.

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