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Original Research Article

The Use of Open Educational Resources (OERs) in Teaching and Learning in Higher Education Distance Learning Programmes in Cameroon

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Abstract

A cross sectional descriptive analysis was adopted for this study. The goal was to was find out the use OERs in teaching and learning in higher education distance learning by taking a snapshot from a cross-section of the population. The institution under study is the University of Buea. The research targeted all 25 students at the master level of the Distance Education Program in the Faculty of Education, University of Buea. All the students were purposively sampled due to the small nature of the target population. A carefully designed questionnaire was used for data collection. The questionnaire had both closed and opened-ended questions which required respondents to select from a variety of responses to cover the research questions. Data was calculated and presented using frequencies tables and bar charts. After getting description of student's responses, an analysis was done to show the situation of the use of OERs and in teaching and learning.

Keywords: Bar charts, Data collection, Distance learning, Frequencies tables, Questionnaire, Target population

INTRODUCTION

Efforts to introduce distance learning in higher education in Cameroon is being revolutionized by the advent of Information and Communication Technology (ICTs) tools that are used to disseminate knowledge over a wide spectrum. The resultant effect is improvement in access and equity in the entire education sector. The adoption of Open and Distance Learning (ODL) system in Cameroon as an alternative to the usual conventional education system has made far-reaching impacts on the educational scenario. The ODL system have brought a paradigm shift towards collaborative learning with emphasis on openness and resource sharing through the use of ICTs. According to Open Education Consortium (2016), open education is a system that incorporates free and open learning communities, educational networks, teaching and learning materials, open textbooks, open data, open scholarship. The consortium further asserted that open education gives access to knowledge, creates platforms for sharing, innovation, and communities of like-minded users to eliminate the restrictions to institutionalised education. Open education serves as a key lever for more effective learning, and the new technologies with the digital content reduced barriers to education (European Commission, 2013).The use of Open Education Resources (OERs), therefore, holds great promise in improving the access to and the overall quality of higher education in Cameron in particular and the world at large.

OERs have recently been described as digital materials that are freely and openly provided to educators, students, and self-learners for use and re-use in teaching, learning, and study; including textbooks, course materials, manuals, videos, assessments, software, and all other resources, materials or techniques used to facilitate access to information, audio-video tutorials, sound and music lesson plans, quizzes, syllabi,

instructional guides, models, content, software tools, licenses, and best practices. The 'open' conceptually implies the zero cost and non-restrictive nature of the materials (Rufai and Sani, 2017). Currently, distance learning providers are creating and using digital content for teaching and learning. For this content to be readily available for free to it users, distance learning providers must make effective use of OERs which are meant to strengthen the ODL system. If used effectively, OERs can play a vital role in the existing scenario of distance learning by improving the quality and accessibility of distance education in Cameroon. This paper therefore, examines the use of ODRs in teaching and learning in higher education distance learning in Cameroon.

Open Educational Resources (OER) is a recently emerging concept in education across the world. It was provoked by the rapid technological advancement and the demand for self-paced, independent learning thathave opened up newer possibilities for alternate channels of disseminating knowledge to learners. Article 26 of the Universal Declaration of Human Rights (1948) states that everyone has a right to education… and higher education shall be equally accessible to all. This means that everyone has the right to learn and upgrade themselves, and gain knowledge. In line with this, many distance learning providers are adopting the use of ODRs with the aim of providing educational opportunities for all. The technological integration in education have been deepened by the extensive accessibility of the Internet which have led to the emergence of several open practices in education together with online learning, e-learning and distance education as stated by Abri and Dabbagh (2018).

According to Caswell et al. (2008), the OERs movement started in 1985, when Richard Stallman founded the Free Software Foundation to support free software and allow freedom to software users. In the same vein, the idea of Open Access was developed in 1991 to understand the necessity to facilitate intellectual, knowledge-based communication (Ghosh and Das, 2007). Other terms were subsequently coined such as learning object and open content. In 2002, UNESCO held a Forum and stated it wish to develop a universal educational resource available for the whole of humanity and chose the term "Open Educational Resource" (Organisation for Economic Co-operation and Development, n.d.). since then, OERs have been in literature and many institutions of learning are maximizing it to enhance the provision of distance learning to its learners.

Problem Statement and Research Questions

Numerous OERs are available since its inception into education but its effective use in higher education distance learning in Cameroon is yet to make waves. In line with this, the effects of OERs on teaching and learning cannot be determined. Fabio and Daniel (2016) stated that OERs can increase quality, access, and attractiveness of tertiary education, fostering a more democratic and competitive higher education system, with the potential to improve access to education, develop and localize open educational services to suit local contexts, and enhance the integration of education into everyday lives as part of lifelong learning. However, within the context of higher education distance learning in Cameroon, such impact is yet to be felt as studies in this area are very sparse; most importantly, studies that seems to examine the use of OERs in higher education distance learning programmes in the University of Buea is almost in existent. It is a known fact that the students' eagerness and attitudinal change toward the use of the internet and its applications in recent times is enough a spur for research of this kind. This paper therefore, examine the use of OERs in teaching and learning in higher education distance learning programme in Cameroon.

This study is guided by the following research questions:

1. What is the level of students' awareness of OERs?
2. What are the OERs used in higher education distance learning?
3. What are the effects of OERs on teaching and learning in higher education distance learning?

Open Educational Resources (OERs)

The broken textbook market and the opportunities offered by the internet have contributed greatly to the adoption of Open Educational resources (OERs) in education. The term first OERs came into use at a conference hosted by UNESCO in 2002, and defined as the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes (Johnstone, 2005). Since then, many definitions have been given in literature with similar characteristics. The Organisation for Economic Co-Operation and Development (OECD) (2007), for example, defines OERs as digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research. OERs has also been defined as teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. They include the technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes. They are distinctively made freely available without restraints on the Internet or the web. Whatever definition is given, a common characteristic cuts across all: OERs are free learning resources available on the Internet; They can be openly licensed or in the public domain, and can be used

or reused for free; They can exist in many formats (such as text-either print or digital, audio, video, multimedia or hypermedia, or various combinations of these);They can be based on a single learning point, a lesson, a series of lessons (a module), a whole course or even an entire programme of study.

The primary use of OERs is to support course development and curriculum. The learning resources that makeup OERs include learning objects such as lecture material, references and readings, simulations, experiments and demonstrations, syllabuses curricula, and teachers' guides (Wiley, 2014). OERs can change learning institutions, teaching practices, and learning and knowledge creation processes. With OERs, the educational model is being replaced by active, social and problem-oriented models against knowledge transfer and internalisation of pre-existing knowledge. The content of OERs includes teaching materials, which range from an entire course to an image or an info-graphic. OERs in the educational context is to leverage pedagogical innovation through the purposive use of technology in teaching and learning. Technology in education makes education more flexible and accessible for learners, open a new horizon to learning and teaching. OERs has the potential to humanise and democratise teaching and learning as it provides immense opportunities for learners. They are essential in stimulating novel education environments where contents are adapted according to users' information needs (Keegan and Bell, 2011).

OERs can be designed to support a specific learning methodology or approach (such as that of the behaviourist, constructivist, connectivism, cognitivists etc), or a combination of methodologies or approaches. This means that OERs can take many formats. Although they may be different in format, structure or approach, it is important to note that they share a common characteristic (their openness). With an open licence, the creators retain ownership of their work and can specify how open they want their resources to be, from fully open to closed for specific purposes. Unlike commercial resources, OERs can be used and reused as needed and/or desired by learners and teachers. Generally, OERs can be:

- Edited to reflect the styles and approaches of the users.
- Augmented by the insertion of new material as it becomes known or available.
- Customised to reflect the ethos of your organisation.
- Repurposed based on the current need
- Combined to assemble lessons, courses and programmes.
- Reformatted to make it suitable for use on different devices (e.g., mobile phones, tablets) and
- Mash-ups can be created by using blended resources from a variety of sources.

The above characteristics of OERs make a possible shift away from creating courses to assembling them. Rather than depending on commercial textbooks to develop courses from scratch, educators can gather OERs from a variety of sources, using accessible content from the Internet, and assemble them into lessons, courses and programmes. It should be noted that not only are OERs free of cost, they are also free to use in any way that a learner or instructor desires and are free of technological and legal restrictions, so no time has to be spent seeking permissions. Highly structured OERs can support traditional teaching methods, while more open examples lend themselves to constructivist, connectivist or other approaches. The fact that OERs can be changed to meet the needs or requirements of the user means that they can be used to support a wide range of learning environments such as distance education where its use is considered essential for students' success.

Types and Format of OERs

Open Educational Resources are of various types and include open courseware, open access journals, open access books, open access repositories, preprints, open access theses and dissertations, open textbooks, digital learning and so on. Margulies (2005) categories OERs into three main elements: learning content, tools, and implementation resources. Learning content refers to full courses, courseware, content modules, learning objects, collections and journals. Tools refers to the software that support the development, use, reuse and delivery of learning content, including searching and organisation of content, content and learning management systems, content development tools, and online learning communities while implementation resources are the intellectual property licences to promote open publishing of materials, design principles of best practice and localise content.

It should be noted that a wide variety of objects and online materials can be classified as educational resources, from courses and course components, to museum collections, to open access journals and reference works. Over time the term OERs has come to cover not only content, but also learning and content management software and content development tools, and standards and licensing tools for publishing digital resources, which allow users to adapt resources in accordance with their cultural, curricular and pedagogical requirements. In distance learning today, there is a paradigm shift towards more personalized and collaborative learning. Therefore, the use of OERs holds great promise of improving the access to and the overall quality of education for the developed as well as the developing countries. As stated by OECD (2007), OEERs have provided opportunities for changing teaching-learning practices. New collaborative learning practices are emerging. The easy and free availability of quality materials facilitates the educators towards developing

and learning new pedagogical models.

The use of OERs is accompanied by certain advantages especially in developing countries like Cameroon. Kanwar, et al., (2010) states some of these advantages which include:

- Helping developing countries save course content development time and money
- Facilitating the sharing of knowledge,
- Addressing the digital divide by providing capacity-building resources for educators,
- Helping to preserve and disseminate indigenous knowledge, and
- Improving educational quality at all levels.

Various factors such as large-scale mobile penetration, low-cost broadband connectivity, increased availability of tools to create and share content, and the extensive developments in the use of ICT in distance education have facilitated and encouraged the dissemination of OERs. Because of this, a number of initiatives related to the development and use of OERs in education have been taken up. However, despite the OERs moment's rapid growth and its benefits to learners, educators and institutions, there remain a number of urgent issues that need to be resolved for OER to flourish (James and Bossu, 2014). The development and use of OERs itself faces significant challenges. D'Antoni (2009) outlines some of these challenges for both the developing and the developed countries and include: the need for raising awareness and promotion, the creation of communities and networking, the sustainability of OERs, copyright and standards, capacity development, technology tools and learning support services, research and policies. These challenges can be categorised as:

1. **Issues related to the advancing the OER movement** – these include awareness raising and promotion, communities and networking, and research.
2. **Issues enabling creation and re-use of OER** – these include policies, standards, technology tools, quality assurance, and capacity development.
3. **Issues enabling learning with OER** – such as learning support services and assessment of learning.
4. **Issues related to removing of barriers to OER** – these are accessibility, copyright and licensing, financing, and sustainability (D'Antoni, 2009).

Roger's (2003) Diffusion of innovation Theory

Rogers' (2003) Diffusion of Innovations explains how innovations are taken up in a population. An innovation is an "idea, behaviour, or object that is perceived as new by its audience" while diffusion is "the process in which an innovation is communicated through certain channels over time among the members of a social system" (Roger, 2003, p. 11). The diffusion of innovation theory also posits that relative advantages, or "the degree to which an innovation is perceived as being better than the idea that it supersedes" (Rogers, 2003, p.212), as it is perceived by adopters. With this knowledge, potential adopters can decide on an innovation. The adoption is a process in which the innovation is accepted or rejected. Roger' theory highlights four main elements in the diffusion of innovation as follows:

Innovation

Rogers offered the following description of an innovation: "An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12). An innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them. The newness characteristic of an adoption is more related to the three steps (knowledge, persuasion, and decision) of the innovation-decision process.

Communication Channels

The second element of the diffusion of innovations process is communication channels. For Rogers (2003), communication is "a process in which participants create and share information with one another in order to reach a mutual understanding" (p. 5). This communication occurs through channels between sources. Rogers states that "a source is an individual or an institution that originates a message. A channel is the means by which a message gets from the source to the receiver" (p. 204). Rogers states that diffusion is a specific kind of communication and includes these communication elements: an innovation, two individuals or other units of adoption, and a communication channel. Mass media and interpersonal communication are two communication channels. While mass media channels include a mass medium such as TV, radio, or newspaper, interpersonal channels consist of a two-way communication between two or more individuals.

Time

According to Rogers (2003), the time aspect is ignored in most behavioural research. He argues that including the time dimension in diffusion research illustrates one of its strengths. The innovation-diffusion process, adopter categorization, and rate of adoptions all include a time dimension.

Social System

The social system is the last element in the diffusion

process. Rogers (2003) defined the social system as “a set of interrelated units engaged in joint problem solving to accomplish a common goal” (p. 23). Since diffusion of innovations takes place in the social system, it is influenced by the social structure of the social system. For Rogers (2003), structure is “the patterned arrangements of the units in a system” (p. 24). He further claimed that the nature of the social system affects individuals’ innovativeness, which is the main criterion for categorizing adopters.

Rogers (2003) described the innovation-decision process as “an information-seeking and information-processing activity, where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation” (p. 172). For Rogers (2003), the innovation-decision process involves five steps: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. These stages typically follow each other in a time-ordered manner.

This theory has implication to this study as it can be used to determine the selection factor, the level of use, the factors affective and the adoption patterns and characteristics of faculty who integrate OERs in higher education distance learning. The diffusion of innovations theory has been primary in discussions of the dissemination of OERs as an innovation. Despite growing awareness, the OERs has been described as a “slow burn” (Lieberman, 2019). A shift in educational practice is needed for the widespread adoption of OERs, which requires a collective transformation and perspective shift.

Mezirow (1991)Transformative Learning Theory

Transformative learning theory is a critical, constructivist theory of adult learning. This theory explores how individuals understand existing frames of reference and change their beliefs. It outlines a process by which adult learners engage in critical reflection of their beliefs, values, expectations and assumptions. Transformative learning involves perspective transformation, or “becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and, finally, making choices or otherwise acting upon these new understandings” (Mezirow, 1991, p.167). This can occur suddenly or over time, or termed by Mezirow as epochal or cumulative. Through critical reflection “on the assumptions upon which our interpretations, beliefs, and habits of mind or points of view are based” frames of reference are transformed (Mezirow, 1997).

The stages of transformative learning, as described by Mezirow are: (1) A disorienting dilemma, (2) Self-examination with feelings of fear, anger, guilt, or shame (3) A critical assessment of assumptions (4) Recognition that one’s discontent and the process of transformation are shared, (5) Exploration of options for new roles, relationships, and actions (6) Planning a course of action (7) Acquiring knowledge and skills for implementing one’s plans (8) Provisional trying of new roles (9) Building competence and self-confidence in new roles and relationships (10) A reintegration into one’s life on the basis of conditions dictated by one’s new perspective (2000, p.22). Transformative learning theory provides a framework that considers the shift in beliefs and values in higher education distance learning. Increasing the adoption of OERs has tremendous potential for higher education. The process of how faculty choose to adopt OERs requires greater study.

Findings of the Study

All respondents are level 600 (masters) students from the University of Buea distance learning programme. Their background information constituted gender and age groups and are presented as follows: Figure 1
22 out of the 25 participants took part in the study. The respondents consisted of 19(86.4%) females and 2(9.1%) males. One respondent did not provide a respond.

Most of the respondents 12(54.5%) are more than 40 years old while 6(40.9%) of the respondents are between the ages of 36-40 years. One respondent did not provide a respond. Figure 2

The presentation of findings according to research questions are as follows:

Research Question One: Students’ awareness of OERs

The researcher sort to find out the students’ awareness of the Open Educational Resources (OERs) that are available for teaching and learning and whether levels have access to OERs. The findings are presented as follows: Figure 3

The findings showed that most of the distance learning students 21(95.5%) at the master’s programme in the University of Buea are aware of OERs available for teaching and learning in their institution while only one student indicated not being aware.

Most of the students 20(90.9%) indicated that, they have access to OERs available for teaching and learning while 2(9.1%) indicated that they do not have access. Figure 4

3(13.6) respondents indicated that they find it very easy to access OERs, majority of the respondents 10(45.5%) find it easy to access OERs, 7(31.8%) find it difficult to access OERs in their institution while only 2(9.1%) find it very difficult no access to OERs. Figure 5

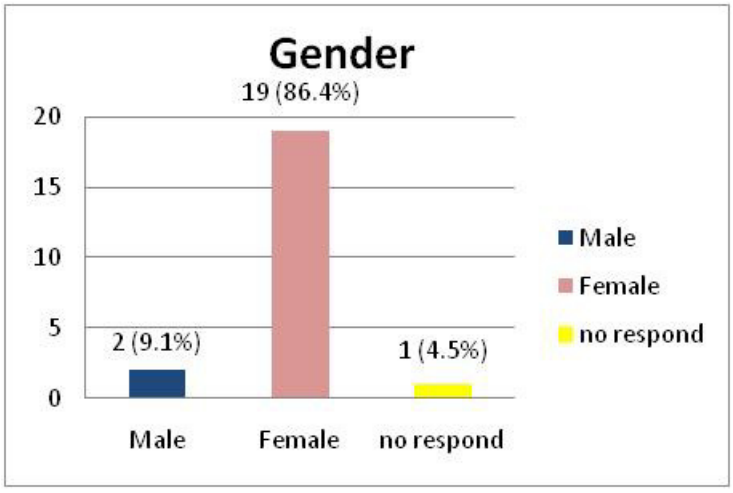

Figure 1. Background information related to gender

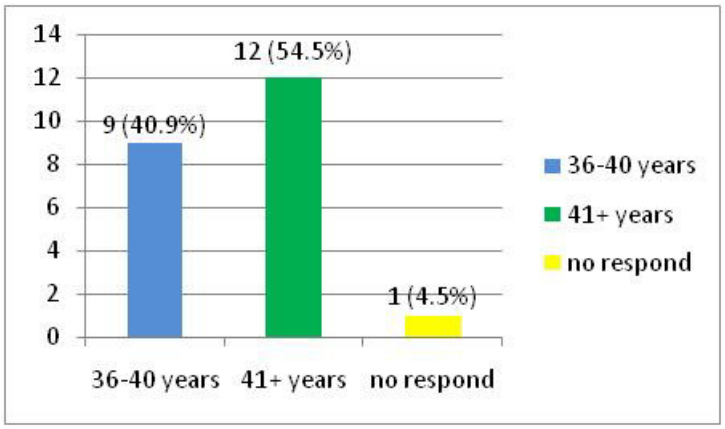

Figure 2. Background information related to age

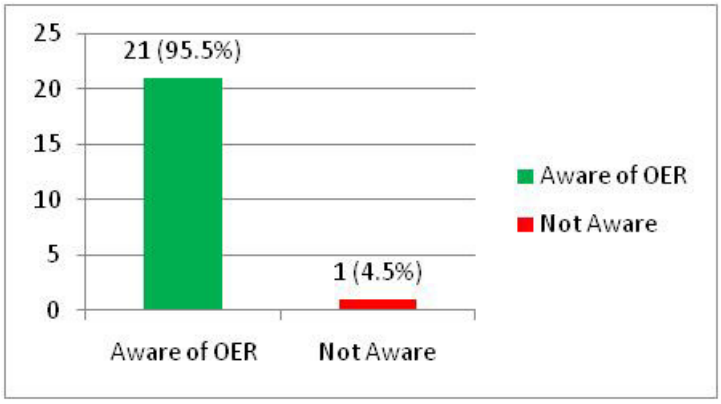

Figure 3. Awareness of OERs

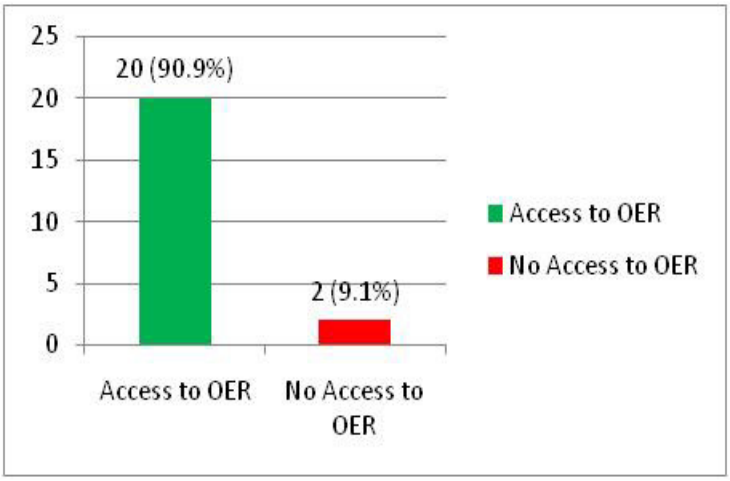

Figure 4. *Access to OERs*

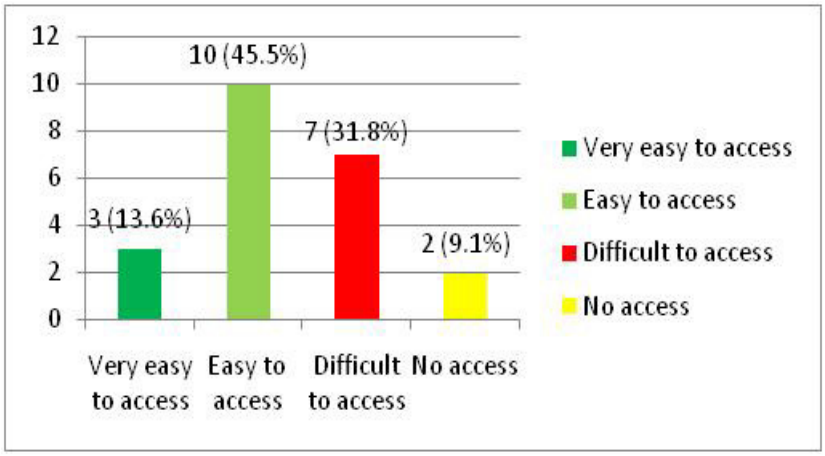

Figure 5. *Ease of access of OERs*

Table 1. *A cross tabulation of the reasons of lack of access to OERs*

If no, select best reason(s) from the alternative					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lack of ICT knowledge	1	4.5	50.0	50.0
	Don't know how to access OERs	1	4.5	50.0	100.0
	Total	2	9.1	100.0	
Missing	System	20	90.9		
Total		22	100.0		

A cross tabulation of the reasons of lack of access to OERs is presented as follows: Table 1

The two students who find it very difficult to have access to OERs indicated that, lack of ICT knowledge and lack of knowledge to access of OERs are the main reasons for not having access to OERs in their institutions.

Research Question Two: The use of OERs in teaching and learning

The Table 2 below shows that OERs used for teaching and learning in the distance learning programme in the university of Buea.

The findings shows that the most often used types of

Table 2. Distribution of responses based on the type of OER used in Higher Education Distance Learning

SN	Items	Yes	No	Total
1	Open textbooks (free and adaptable texts)	17(77.3%)	5(22.7%)	22(100%)
2	OERs courseware (open online university courses and programmes)	12(54.5%)	10(45.5%)	22(100%)
3	OERs course materials	19(86.4%)	3(13.6%)	22(100%)
4	Learning Management Systems (such as moodle)	14(63.6%)	8(36.4%)	22(100%)
5	Streaming videos	3(13.6%)	19(86.4%)	22(100%)
6	Software	4(18.2%)	18(81.8%)	22(100%)
7	Digital learning objects (individual digital assets)	16(72.7%)	6(28.3%)	22(100%)
8	Digitalised object libraries (online collection of assets)	10(45.5%)	12(54.5%)	22(100%)
9	OERs Encyclopedias (collaborative written reference materials)	12(54.5%)	10(45.5%)	22(100%)
10	Open online archives (repositories of collected OER)	7(31.8%)	15(68.2%)	22(100%)
11	Open course archives (libraries or indexes of courses)	11(50%)	11(50%)	22(100%)
12	Online tools that support the open community	4(18.2%)	18(81.8%)	22(100%)
13	Social media software (Wiki, H2O)	10(45.5%)	12(54.5%)	22(100%)
14	Reference material collection (internet archive, google scholar, Wikipedia)	15(68.2%)	7(31.8%)	22(100%)

Table 3. Distribution of responses based on the purpose for using OER

SN	Items	Yes	No	Total
1	To do research	15(68.2%)	7(31.8%)	22(100%)
2	To do assignment	20(90.9%)	2(9.1%)	22(100%)
3	To attend lectures/tutorials	18(81.8%)	4(18.2%)	22(100%)
4	To teach students/others	7(31.8%)	15(68.2%)	22(100%)
5	To submit an assignment	17(77.3%)	5(22.7%)	22(100%)
MRS				

Table 4. Distribution of responses based on the effect of OERs in Teaching and Learning

SN	Items	Disagree	Agree	Total
1	OER enhance the students' cooperation through exchange ideas	0(0.0%)	22(100%)	22(100%)
2	OERs enhances communication between students and teachers	1(4.5%)	20(90.9%)	21(100%)
3	OERs builds fruitful partnerships with other institutions	1(4.5%)	20(91%)	20(100%)
4	OERs available on the University repository makes students learn easily	0(0.0%)	22(100%)	22(100%)
5	OER available on the University repository enables teachers to teach with ease	1(4.5%)	21(95.5%)	22(100%)
6	Educational materials are effectively exploited when made available in OERs	1(4.5%)	21(95.4%)	22(100%)
7	Learners can learn anywhere and at any time with OERs	1(4.5%)	21(95.4%)	22(100%)
8	Exploring the available OER enhance the quality of teaching	0(0.0%)	19(86.3%)	19(100%)
9	Exploring the available OERs enhances the effectiveness of learning	0(0.0%)	22(100%)	22(100%)
10	OERs may stop students from attending lectures or class (Reversed)	14(63.6%)	6(27.2%)	21(100%)
11	Using OERs saves more time and money	0(0.0%)	21(95.4%)	21(100%)
MRS		**11(4.7%)**	**223(95.3%)**	**234(100%)**

OERs in teaching and learning in distance education in the university of Buea include: OERs course materials 19(86.4%), Open textbooks 17(77.3%), Digital learning objects 16(72.7%), Reference material collection 19(68.2%) and Learning Management Systems 14(63.6%). The following OERs are sometimes used by

students: OERs course ware 12(54.5%), Digitalised object libraries 10(45.5%), OERs Encyclopedias 12(54.5%), Open course archives (50%) and social media software (45.5%). However, Open online archives 11(31.8%), Software 4(18.2%), online tools that support the open community 4(18.2%), and Streaming videos 4(13.6%), are rarely used by students in the distant learning programme in the University of Buea.

Findings from the purpose of using OERs are presented as follows Table 3:

The findings shows that most of the respondents 20(90.9%) use OERs to do assignments, followed by 18(81.8%) who use it to attend lectures/tutorials, 17(77.3) % who use OERs to submit assignments, 15(68.2%) who use OERs to do research and 7(31.8%) who use OERs to teach students/others.

Research Question Three: The effects of OERs on teaching and learning

Findings on the effects of OERs on teaching and learning are presented as follows;

The findings shows that most of the respondents 223(95.3%) acknowledge that, OERs has a positive effect in teaching and learning. Only about 11(4.7%) respondents do not acknowledge a positive effect of OERs in teaching and learning. Students agree to the fact that, OERs enhances students' cooperation (100%), Communication (90.9%), and partnership with other institutions (91%). OERs facilitate teaching (95.5%) and learning (100%) and its effectiveness (100%), as well as saving more time and money (95.4%). Table 4

DISCUSSION AND CONCLUSION

The findings of this study revealed that distance learning students in the university of Buea are aware of the OERs available for teaching and learning in their institution and therefore, have access them. The OERs frequently used in the teaching learning transaction include OERs course materials, open textbooks, digital learning objects, reference material collection, and Learning Management Systems. Occasionally, students use OERs courseware, digitalised object libraries, OERs Encyclopedias, open course archives and social media software. Apart from having Knowledge and access to these OERs, the study equally found that OERs has positive effects in teaching and learning in distance learning in the university of Buea. This is because, OERs is said to enhance students' cooperation, communication and partnership with other institutions, facilitate teaching, learning, are effectiveness as well as saving more time and money. This means that it is easier and cheaper to use OERs in teaching and learning in distance education. These findings are in line with Feldstein et al. (2012) that revealed that students in courses that used OERs more frequently had better grades, lower failure and withdrawal rates than their counterparts in courses that did not use open textbooks. It is also in line with the finding of Pawlyshyn et al. (2013) and Hilton (2016) who concluded from their findings that students perform better using OERs and are optimistic about the use.

The diffusion of innovations theory (Rogers, 2003) has been primary in discussing the adoption and use of OERs as an innovation in education in general and distance education in particular. By implication, the distance learning programme in the university of Buea is in consonance of the innovation taking place in higher education and have recognized the importance of OREs in the effective of teaching learning transaction. This shows that, despite slow adoption of OERs in education, a situation that has been described as "slow burn" (Lieberman, 2019), the case is ot the same with the distance learning programme in the university of Buea. There has been a shift in the educational practice in the programme, with a widespread adoption of OERs in a a collective transformation and perspective shift.

In addition, the transformative learning theory, which provides a useful framework to consider when designing professional learning programmes for learners, can be said to be a guiding framework for designers of the distance learning programme in the university of Buea. Despite the fact that most instructional designers do not often utilize transformative learning theory (Bali and Caines, 2018), the situation of the distance learning programme in the university of Buea is different. Adopting and utilizing OERs, which is seen to be effective in the programme is both an innovation and a transformation programme. The study shows that the designers did not only focus on the educator as learner, but also enabling us appropriated relevant theory, research, and practice from the adult education field as supported by King (2002). With evidence that the adoption of OERs has tremendous effects on teaching and learning in distance learning in the university of Buea, the process of how faculty choose to adopt OERs requires greater study.

CONCLUSION AND RECOMMENDATIONS

From the findings and discussion of this study, it can be concluded that OERs play an indisputable and fundamental role in teaching and learning in distance learning in the university of Buea. Therefore, there is need to flag OERs as reliable resources for teaching, learning and research in higher education distance learning. Based on this, it is important for all higher education distance learning programmes to understand the importance of OERs, developed a standard procedure for integrating them in the Learning Management Systems, make them available and accessible for students use. Institutional libraries must

promote the use of OERs in higher institutions of learning. There is equally need for continuous ICT training to enhance students and staff's literacy skills and competency in the use of OERs.

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