

FIELD REPORTS

ENABLING CONDITIONS FOR THE SUCCESSFUL INTEGRATION OF OPEN EDUCATIONAL RESOURCES FOR PROFESSIONAL DEVELOPMENT IN A DEVELOPING CONTEXT INSTITUTION

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ABSTRACT

There is evidence in literature to support the fact that the availability of enabling conditions is a critical requirement for Open Educational Resources to be successfully institutionalised. Several initiatives have been undertaken collaboratively in different countries to aid this process. In this field note, the researchers share findings from an investigation into the enabling conditions for the successful integration of OER for the professional development of lecturers at the Open University of Tanzania (OUT). Data was collected from a sample of 23 lecturers (from seven academic departments), who participated in the institutional situational analysis workshop. The study used a questionnaire that included close-ended (structured) (Cronbach's $\alpha = 0.7$) and open-ended questions adapted by OER Africa. Findings suggest that there are several opportunities at the institution, despite the prevalent challenges. The authors therefore provide some recommendations, which should be helpful to other institutions that experience similar challenges.

INTRODUCTION

According to UNESCO (2016), Open Educational Resources (OER) are any type of educational materials that are in the public domain or which are introduced with an open license. The materials range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects and audio, video and animation, which anyone can legally and freely copy, use, adapt and re-share.

OER are used in Open and Distance Learning (ODL) as a strategy to address challenges in relation to the professional development of teachers, tutors and lecturers by providing access to high-quality resources (Atkins, Brown & Hammond, 2007; Thakrar, Zinn & Wolfenden, 2009). In the context of Teacher Education in Sub-Saharan Africa (TESSA), OER are reported to be used for professional development, as a strategy to ensure a well-prepared, engaged and committed corps of primary school teachers in sufficient numbers (Thakrar et al., 2009; Anamuah-Mensah, Buckler, Moon, Ricketts, Sankale, Wolfenden & Pontefrac, 2008). Examples of collaborative initiatives in this regard include Bringing Educational Resources to Teachers in Africa (BERTA), by the South Africa Institute for Distance Education (Saide) and the Open University of Catalonia (UOC), funded by the International Council for Distance Education (ICDE) (Mallinson & Mays, 2014), Research on Open and Educational Resources for Development (ROER4D), and the OpenUpEd programme of the United Nations Educational, Scientific and Cultural Organisation (UNESCO).

In this field note, the researchers share their findings from an investigation into the enabling conditions for the successful integration of OER for the professional development of lecturers at the Open University of Tanzania (OUT), based on a study previously reported on by Nihuka and Mallinson (2016). Data was collected from a sample of 23 lecturers (from seven academic departments), who participated in an institutional situational analysis workshop using a questionnaire that included close-ended (structured) (Cronbach's $\alpha = 0.7$) and open-ended questions adapted by OER Africa. Findings suggest that there are several opportunities available at the institution, despite the prevalent challenges. The authors therefore provide some recommendations, which should be helpful to other institutions that experience similar challenges.

CRITICAL REQUIREMENTS FOR THE SUCCESSFUL INTEGRATION OF OER IN EDUCATION FOR PROFESSIONAL DEVELOPMENT

Research reports from the collaborative African initiatives mentioned in the previous section have shared experiences of successes and challenges in efforts to integrate OER in the education sector. Despite the potential of OER, the availability of enabling conditions is a critical requirement for its successful integration in education (Karunanayaka and Naidu, 2013; Unisa, 2014). These conditions include the following:

- The availability of an institutional OER policy to guide OER practices and operations at the institution – either as a stand-alone policy or as a relevant section incorporated into an existing information and communication technology (ICT) policy (Unisa, 2014)
- The willingness of both institutional leadership and lecturers to accommodate OER integration within their operations and practices (Karunanayaka & Naidu, 2013; Thakrar et al., 2009)
- The availability of expertise among lecturers in relation to all aspects of OER use, production and integration (Karunanayaka & Naidu, 2013; Unisa, 2014)
- The availability of relevant ICT infrastructure and experienced technical staff (Karunanayaka & Naidu, 2013)
- The availability of institutional support (with regard to both funding and the provision of incentives) and collaboration with other institutions within and/or outside the country (Thakrar et al., 2009)
- The availability of quality assurance structures – general or specific to OER – and copyright clearance good practice to ultimately ensure the provision of quality education (Unisa, 2014)

Many of these enabling conditions were considered as criteria in the selection of OUT as one of four institutional partners for the collaborative OUT/OER Africa participatory action research project (OER Africa, 2013).

BACKGROUND

Systematic efforts to integrate ICT in education at OUT can be traced as far back as 2004 (Mbwette, 2008; Bakari, 2009). Such efforts included the formulation of an institutional ICT policy, an ICT master plan and an e-learning implementation strategy (OUT, 2009a; 2009b; 2009c). These have recently been reviewed to accommodate new developments within the University (OUT 2015a; 2015b; 2015c).

According to the ICT policy, the University is committed to transforming paper-based learning course delivery to blended learning course delivery by installing a Local Area Network (LAN), improving ICT infrastructure and access, training lecturers on basic pedagogical skills related to e-learning course design and development and training students on basic technology skills. Furthermore, the policy stipulates the ambition of the University to motivate lecturers to use open source e-learning platforms such as the Moodle learning management system (LMS), and to improve access to the internet (to enhance communication, interactions and sharing of information) and learning technologies such as computers.

To date, several achievements have been realised, as stipulated in the University's ICT policy ambitions. Evidence indicates that the achievements include the improvement of ICT infrastructure, including the installation of a LAN at the University and connecting all regional centers to the headquarters in Dar es Salaam through a virtual private network (VPN) (Mbwette, 2008; Bakari, 2009). Also, access to technologies such as computers and the internet by lecturers and students have improved substantially at the headquarters and in all regional centers since the installation of computer laboratories with internet connectivity, including Wi-Fi (Mbwette, 2008).

In terms of capacity, the University has managed to improve the technology competence of lecturers, with over 55 lecturers having been trained in pedagogical skills related to the design and development of e-learning courses for delivery using the Moodle LMS, both at headquarters and in all regional centres. In addition, over 21 000 students have been trained in basic technology skills (Bakari, 2009). As a result of the developed capacity, the University now has a customised Moodle LMS, which is currently being used by lecturers and students to facilitate access to courses, learning resources and real-time or virtual interactions between them.

Furthermore, the University encourages lecturers and students to harness the freely available OERs from renowned institutions such as the Massachusetts Institute of Technology (MIT), African Virtual University (AVU), TESSA and UNESCO, which can be accessed through links on the University's website and which are in addition to locally developed OERs.

RESEARCH DESIGN AND DATA ANALYSIS

The study used a planning evaluation research design, which was conducted during the OER Institutional Analysis Workshop, held on Monday, 24 November 2014, at

OUT. According to Guskey (2000), planning evaluation is an appropriate design, because it takes place prior to the implementation of an innovation and allows for a careful analysis of the context and a determination of opportunities and challenges for proper planning.

The study used the instrument that was adapted by OER Africa from Baer and Norris (2014) for the Institutional Analysis Workshop. A total of 23 lecturers from seven faculties (who participated in the Institutional Analysis Workshop) participated in the study.

The adapted instrument comprised three parts: background (department/faculty and names of team members: page 1), open-ended questions (pages 2–4), and close-ended (structured) questions (pages 5–7).

With the open-ended questions, participants were required to provide explanations or descriptions of specific issues related to the study. With the close-ended (structured) questions, participants were required to tick an option on a 5-point Likert scale (i.e. strongly agree, agree, neutral, disagree and strongly disagree) against statements that best described a specific phenomenon. This section had an average reliability Cronbach's alpha value of 0.7.

FINDINGS

Findings from the study are discussed below:

Lecturers' willingness to use OER

The first research question explored lecturers' perceived willingness to use OER for their professional development. Findings from structured questionnaires indicated that all 23 lecturers (100%) were willing to use OER for their professional development. Furthermore, findings from the open-ended questions indicated that lecturers were willing to use OER because "*using OER increases the resource pool and ensures availability of adequate, teaching and learning resources, which improves teaching and learning practices*". Also, lecturers were willing to use OER because "*currently there are a lot of freely available online and OER materials for use in education*".

Lecturers' expertise in terms of OER

The next research question investigated lecturers' expertise in terms of the use of OER in education. Findings indicated that 20 (78.2%) of the 23 lecturers reported

that they had expertise on how to design and develop resources for publication as OER. This contradicted other findings from the open-ended questions that none of the lecturers know what OER are, where and how to find OER, how to evaluate OER, how to adapt OER and copyright issues related to OER. The participants' responses could mean that they are confident of being able to design and develop learning materials in general, rather than understanding that there are particular considerations when doing so for OER publishing.

Institutional policy to support OER

The third research question sought to determine specific institutional policies that are available to support OER. Findings from the structured questions indicated that the majority of lecturers in this study (20 lecturers – equivalent to 78.2%) affirmed that there are institutional policies in place to support the use of OER. Responses from the open-ended questions identified the following specific structures that relate to OER that are available at the institution: an ICT policy and operational procedures, an ICT master plan, an ICT implementation strategy and a study materials policy and operational procedures. However, the findings from both instruments indicated that, as yet, there was no specific policy, operational procedures or guidelines on OER.

Leadership commitment to OER

OUT's leadership commitment to OER mainstreaming for the professional development of lecturers – as perceived by respondents – was also explored during the study. Findings from the study indicated that all 23 respondents (equivalent to 100%) affirmed the commitment of OUT's leadership to OER. In support of this response, the majority of respondents (19 respondents – equivalent to 79.6%) affirmed that the leadership at OUT encourages the sharing of educational resources and acknowledges collaboration as an effective approach to developing OER. Findings from the open-ended questions indicated that "*currently, the University leadership is working in partnership with external institutions to introduce and support OER-related activities*". However, findings indicated that the leadership lacks effective institutional structures – 3 responses (13%) – and that it does not yet provide incentives to lecturers who use OER.

Infrastructure to support to OER

Another research question dealt with OER-related infrastructure that is available to support OER mainstreaming in the institution.

Findings on OER-related infrastructure that is available to support OER mainstreaming at the institution indicated that lecturers and students enjoyed readily available access to the internet (16 responses – 69.5%). Furthermore, the University has plagiarism software (19 responses – 79.6%), a functional platform (15 responses – 65.2%) and relevant technical staff to support OER development (17 responses – 73.9%). There are also adequate computers available (18 responses – 78.2%).

Quality assurance and control mechanisms

The kinds of quality assurance and control mechanisms that are available at the institution to support the use of OER were also investigated. Findings indicated that the University has a quality assurance and control unit (12 responses – 52.2%) and guidelines (15 responses – 65.2%). It was also revealed that feedback from stakeholders is fed back into quality improvement processes (19 responses – 82.6%). However, findings indicated major challenges with the following: the knowledge of staff on copyright issues (11 responses – 47.8%) and the availability of clearance procedures of third-party copyright of learning resources (8 responses – 34.8%).

CONCLUDING REMARKS

OER has the potential to advance the delivery of education by increasing the availability of relevant learning materials, reducing the cost of accessing educational materials, and stimulating the active engagement of teaching staff and students in creating learning resources (OER Africa, n.d). However, institutionalising OER can be challenging. Based on the findings of this study, the authors make the following recommendations:

First, institutions that plan to institutionalise OER need to consider developing a policy to guide OER practices and operations. This should be aligned to all other related policies and, most importantly, to the quality assurance and control practices of institutions in order to ensure ongoing adherence to policies. In addition, it is necessary to design, develop and implement OER that can be used for the professional development of lecturers in order to promote lecturers' expertise and knowledge in searching for, evaluating, adapting, remixing and publishing OER with appropriate licenses in the context of OER.

In addition, OERs can also be used to orientate students in terms of relevant 21st-century skills with respect to the effective use of digital resources for learning in ODL.

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