

# Open Educational Resources to Support Effective ODL Delivery: A Conceptual Review

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## ABSTRACT

Online Distance Learning (ODL) is seen as an alternative method in higher educational setting moving towards a new normal life practices due to this global COVID-19 pandemic. This approach provides students the opportunity and flexibility in learning activities including to work on their assignments and continuous assessments at their own pace. However, does ODL has effectively delivered to the students at Higher Learning Institution (HLI)? Open Educational Resources (OER) include full courses, course materials, modules, textbooks, streaming videos, tests, software, and tools, materials, or techniques used to support access to knowledge. OER is suggested to assist the ODL delivery because it is accessible through the internet and allowing others to modify it for new uses. OER have make a change to the way educators use, share, and improve educational resources and knowledge by making them open and freely available and create "culture of openness". Students can utilize the OER as references and enable them to accomplish their projects. Therefore, the study is done to conceptually discuss the overview of OER and its roles to support ODL activities through the benefits that students may gathers from this OER. Aside that, the study discusses the challenges of implementing OER as the adaptation of OER requires new skills in which the educators needs more than basic ICT skills in order to revising online resources. Other than that, many educators feel it is wrong to use other people's work and they protect rather than share their own resources. This study is significantly important to the HLE for establish and sourcing the appropriate OER because there is no one stop centre that accumulate the OER across the internet. Ministry of higher education can issue a grant to the HLE's institution to begin a proper centre for OER as it will benefit students in ODL.

**Key Words:** Open Educational Resources (OER), Online Distance Learning (ODL), Instructional Materials, Teaching and Learning

## 1. INTRODUCTION

ODL can be defined as the distribution of learning material to students who are spatially distant from their lecturers. They are not in the same classroom (Moore and Kearsley, 1996). Moore (1993) points out that it not merely entails a geographic separation between students and lecturers, but also a separation by time. It requires special education and communication technologies and normally executed through the application of electronic and other media. The outbreak of the COVID-19 pandemic was unexpected and has completely transformed the higher education system which ODL has become significant new norm method of learning nowadays.

Effectiveness is the main concern for most of the organization in realizing their goals and achievements (Musa et al., 2020). Specific to teaching and learning activities, to ensure the effectiveness of ODL delivery, there is a need for strategic approach or tools to support the teaching and learning process. Nevertheless, learning at a distance is not without problems. Loss of student motivation due to lack of face-to-face contact with lecturers, tutors, friends and high start-up cost and absent of skills at handling technology and devices are all barriers to success and effective ODL. There are three important factors that contribute to effective online distance learning (ODL) namely, level of interactivity within

student-tutor-content, motivation, students' performance as well as information and communication technology (ICT) also technology support system (Musa et al., 2020 and Tatkovic et al, 2006).

OER is seen to be one of the approaches that can support ODL delivery. The term of OER is well-known as open e-learning content (Geser et al, 2007) or open digital educational content (Corcoles et al., 2007). OER are digitised materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research that has been released under intellectual property (UNESCO, 2002). OER includes learning content, course material, textbooks, streaming videos, modules, software tools to develop, use, and distribute content and implementation resources. The OER movement has allowed educators to become more innovative in their teaching and learning. The OER have been recommended as a very cost-effective investment in quality teaching-learning (Dhanarajan and Porter, 2013). In conventional teaching practices, educators mostly spend time developing learning materials, reviewing lecture notes, anticipating questions and formulating answers, preparing for examinations. This method is no longer appropriate since OER support openness and flexibility through digitised materials.

However of course there is an opportunity and challenges in implementing OER in teaching and learning activities, specifically ODL. The benefit or opportunities of OER can be seen through effective digitised materials, well-developed ICTs and technology support system (Musa et al, 2020). Meanwhile, some challenges may occur in terms of technical, economic, social and legal as well. Responding to this issue, the study is done to conceptually discuss the overview, benefit and challenges in implementing OER as it is suggested as one of the strategic approaches to support the effectiveness of ODL delivery on teaching and learning activities. This study is significantly important to the academicians, educators, higher education institutions and policymakers as a reference to make appropriate improvement or solution to any issue arise from the ineffective and unsuccessful of OER.

## 2. OVERVIEW OF OER IMPLEMENTATION IN TEACHING & LEARNING

Open education resources are teaching, learning, and research resources that reside in the public domain or creative common area and are freely available to anyone over the Web. They are an important element of the learning infrastructure and range from podcasts and digital libraries to royalty-free textbooks and games. There have been many definitions of OER. The William and Flora Hewlett Foundation defines OER 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. Meanwhile, OEL also been suggested as accumulated digital assets that can be adjusted and which provide benefits without restricting the possibilities for others to enjoy them (OECD,2007).

In Malaysia, distance learning was started by private institutions such as Stanford College, Raffles College, Malaysian Correspondence College, Adabi College, and Federal College (Ali, Fadzil, & Kaur, 2006). Meanwhile, for public universities, Universiti Sains Malaysia (USM) was the first who practice distance learning in 1997 and followed by Universiti Teknologi MARA which is in 1990 (Ali et al.,2006). Thenceforth, distance learning becomes outstanding with more public and private universities start to offer those programs purely for distance or online learning. Universiti Kebangsaan Malaysia in 1993 and followed by Universiti Malaya, then in 1994 Universiti Putra Malaysia (UPM) and followed by Universiti Utara Malaysia (UUM), Universiti Telekom (MMU), and Universiti Tun Abdul Razak (UNITAR) in 1994, 1995, 1997, and 1998 respectively (Ali et al.,2006)

Abeywardena et. al. (2013) found that the most widely types of digital resources used was digital readers, online class discussions, images or visual materials and news or other media. The study also found that search engines/directories (e.g., Google, Yahoo!), personal collections of resources, and online journals are the best sources of digital resources. Indeed, based on the study, integrating digital resources into online lectures, and using them in project-based or problem-based assignments were found to be the most popular use of digital resources. It demonstrates that academics seem comfortable with locating, discovering, and using digital resources in their day-to-day teaching and learning.

Nevertheless, there are still obstacles that are discovered which might discourage the adoption of OER in Malaysia. Lack of awareness and skills, lack of interest in pedagogical innovation as well as lack of support from the management level are some of the barriers amongst staff members to make use of OER (Abeywardena et al.,2006). Therefore, in a way of promoting greater adoption of OEL in this country, the institution needs to establish policies thus it will encourage wider use and reuse of open content (Zainuddin et. al.,2017). The Draft Guidelines for Open Education Resources in Malaysia has been developed by Zainuddin et al (2017). These guidelines intending to provide direction in the use of OER to enhance the accessibility and quality of educational resources in Malaysia.

The pandemic of Covid-19 which attack our country in 2020 has changed the education environment dramatically and caused the rise of online distance learning. The development of online materials amongst academicians has become broad with the sudden shift away from the classroom. As refer to the allocation of Budget 2021, the Education Ministry was the biggest recipient of allocations with

RM64.8 billion. Therefore, properly spending on the allocation is important to ensure the quality of educational resources in Malaysia.

### 3. BENEFITS OF OER TO SUPPORT ODL DELIVERY

Open Educational Resources (OER) is more than just a fad, but it is a practical platform for appreciating the spirit of 'Education for All,' with several advantages for institutions, educators, and also students. Globally, there is an increase in the demand for the education (Jiayin, 2020). The nature of open online training and resources give flexibility to the learners since they will certainly enjoy their courses since there is no time restriction for them to join and learn. Due to this, OER has open up chances for everyone at different age groups from variety backgrounds to learn knowledge.

OER is based on the concept of free. In this context, the terms "free" and "no cost" refer to the expense of accessing any resources to obtain the information you need for your research. On a worldwide scale, offering free access to educational resources has a significant impact on educators, students, and self-learners' willingness to utilise and reuse them for teaching, learning, and research. Besides that, with the free access of OER, learners can access OER anywhere in the world at any time.

Nowadays, the current information and technology revolution has affected in all parts of human life including education whereby with this revolution the possibility to reach knowledge is quiet easily. OER has change the traditional ways of learning. Moreover, OER enables educators and learners to gain knowledge in a very cost effective way. No more cost materials such as textbooks are needed in order reach the knowledge. As mentioned by Azizan Ahmad (2020), it is not compulsory to print textbooks as open education is cost effective as it encourages informal learning by not requiring any credentials.

### 4. CHALLENGES OF OER IMPLEMENTATION IN TEACHING & LEARNING

Along with conventional education, open education has widened the scope of learning opportunities through the emerging theme of "Bring your own device" to learn. Besides, open educational resources (OERs) and massive open online courses (MOOCs), some other digital learning platforms such as online meetings apps like Zoom, Google Meet, Cisco WebEx, etc. have provided myriad learning opportunities to the learners by opening up their minds and helping them to gain need-based training and skills which are the most essential prerequisites for a healthy living in a society (Bordoloi et. al., 2021).

The social phenomenon of open source production has recently spread to open educational resources, which is the development and distribution of teaching and learning materials used in education. Academic managers throughout the university are facing new and significant challenges, which will require a reorientation from managerial approaches based on assumptions of centralization and control, to those based on assumptions of decentralization and organizational adaptation. From teaching capacity, to content sourcing, and infrastructure, we see virtually every traditional core competency of the modern university being distributed. The university's ability to effectively possess and control these "assets" is slipping away, moving the organization's distinctive competency from controlling and managing assets to managing organizational structures and behaviours to support agility (Masson and Udas, 2009).

While the educational imperatives for open scholarship are clear and convincing, its adoption and implementation more widely are till fraught with challenges. Far too many attempts at the integration of OER have failed to impress upon teachers and learners the pedagogical affordances of use, reuse and adaptation of OER. Many have failed to make clear to teachers and learners that not all educational resources, no matter how good, are fixed or static entities. Surely, some of this content is declarative and does not change, but others do change and need to be seen differently in different contexts. As such focussing on the learning of content cannot be the end game for learners. A focus on learning to solve real-life challenges and problems should be the focus of all learning. The subject matter content for this can and should be sourced from anywhere. And it helps if these are OER so that they can used, reused and manipulated in ways that are not possible with proprietary material. Such an approach requires a shift in the mindsets of educators and teachers from thinking about teaching to the content to designing rich and relevant learning experiences in which students are engaged in solving real-world challenges and problems with the help of OER (Karunanayaka and Naidu, 2017).

According to Bordoloi et. al. (2021), among challenges faced are designing the curriculum based on experiential learning pedagogy in online format for the learners is not so easy because quantification of units and counselling hours in curriculum transaction is not viable all the times; and lack of proper knowledge and training on the part of the teachers and the administrators in using the ICT-based technologies in educational purposes in schools as well as higher educational institutions still remains a challenge to overcome. It is important to note here that a new kind of social transformation is currently being initiated across the world by encouraging more and more online interventions in education. In fact,

various studies have been being conducted on the implementation of online courses across the world, particularly in the developed countries where more than 70% education is delivered online.

## 5. DISCUSSION & CONCLUSION

Online Distance Learning (ODL) which has become a new normal practice in Higher Education Institution (HEI) setting, has require Open Educational Resources (OER) to support the effectiveness and efficiency of the of teaching and learning delivery. This reflection is initially aimed to examines some of the continuing and emerging issues in the open educational resources (OER) field. Therefore, the study had conceptually discussed the overview of OER and its roles to support ODL activities through the benefits that students may gathers from this OER. Aside that, the study discusses the challenges of implementing OER as the adaptation of OER requires new skills in which the educators need more than basic ICT skills to revising online resources. From the discussion it is highlighted the significant role of OER in assisting the ODL process whether to the educator or learners.

In detail, the study has discussed the overview of OER implementation in teaching & learning globally and later specific in Higher Education Institution (HEI) setting. The term opens educational resources (OER) first came to use in 2002 at a conference hosted by UNESCO. This study has been widely defined by the others scholar which focuses generally on the nature of OER which is open access to public. It may content any educational materials either note, video, illustration, etc. It is important for the reader to firstly understand the definition and development of OER so that they can relate and apply this OER practices within the ODL delivery. Thus, the study has discussed the definition and development of OER practice in HEI setting.

Then, a discussion on the benefit of OER to support effective and efficient teaching and learning delivery is important that inspire the study to highlight. It is because, the study has found several benefits of OER particularly to the teaching and learning process. OER is suggested to assist the ODL delivery because it is accessible through the internet and allowing others to modify it for new uses. OER have make a change to the way educators use, share, and improve educational resources and knowledge by making them open and freely available and create "culture of openness". Students can utilize the OER as references and enable them to accomplish their projects.

Finally, the study has also highlighted on the challenges of OER implementation in teaching and learning particularly through ODL setting to give some input on how the Higher Education Institution (HEI) can take further action to strategize through a policy, guidelines, or assistance to support the OER implementation during ODL teaching and learning process. It is because, adaptation of OER requires new skills in which the educators need more than basic ICT skills to revising online resources. Other than that, many educators feel it is wrong to use other people's work and they protect rather than share their own resources. Therefore, HEI or the Ministry itself should establish and sourcing the appropriate OER setting because there is no one stop centre that accumulate the OER across the system.

In conclusion to the conceptual findings, it is strongly indicating the significant contribution of Open Educational Resources (OER) to assist the effective and efficient delivery of ODL in teaching and learning within Higher Education setting especially when the country is facing with a crisis or pandemic. However, to ensure the application of OER can be successfully and function to assist ODL setting in this new normal, a collaborative commitment from the policy maker, institutions, educator as well as the learner to eliminate the barriers and challenges of OER application in Higher Education setting. In the future, research will need to examine the concept of open educational practices (OEP) from the empirical perspective on educators and learner.

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