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## A STUDY ON THE USE OF ONLINE LEARNING SYSTEM (OLeS) AMONG ACADEMIC STAFFS IN PRIVATE HIGHER EDUCATION INSTITUTIONS

Hasnah Am Abdul Aziz  
Kolej Poly-Tech MARA, Alor Setar  
hasnah\_aaziz@gapps.kptm.edu.my

Nur Hafizati Mohtar  
Kolej Poly-Tech MARA, Alor Setar  
nhafizati\_m@gapps.kptm.edu.my

### ABSTRACT

There is a significant transformation for higher education to confront intense competition, enhance the academic program to meet the challenges of this competition and to develop new teaching and learning strategy to fulfil the demand of the global market place. Furthermore, the rapid growth of internet-based innovations has resulted in changes in teaching approaches, learning development, manifested in different forms of e-learning. Even the traditional method such as tutorial and face-to face tutorial lecturer still strongly dominant, higher education intensively investing in learning technologies to facilitate greater quality enhancements in students learning experiences. This study conducted to explore the uses of online learning system (OLeS) in teaching and learning process among lecturers in Kolej Poly-Tech Mara Alor Setar. This study employed a qualitative approach; semi-structured interview and online learning records. The population of the study consisted of 41 lecturers, and conducted November in 2018. Thematic analysis used for semi-structured interview data, whereas Descriptive Analysis was utilized to analyse the online learning records. Through the thematic analysis; three main themes were revealed such as management encouragement and support, lecturers' positive attitudes on the use of online learning and the benefits of online learning towards students. Overall, the result showed positive attitudes among lecturers toward the uses of online learning due to the management efforts and perceive of usefulness. Hopefully, these findings enhance our understanding of the uses of online learning in higher education, indicating several issues to consider while implementing online learning in teaching and learning.

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Online Learning,  
TAM, OLeS

### 1.0 Introduction

The education field has been proliferating for the past two decades; and the integration of electronic tools in teaching and learning process is crucial in order to raise the standard of Malaysia education to meet the requirement of 21<sup>st</sup> learning. Furthermore, the existence of internet has become medium in human life in term of government, education, commercial and other organisations (Zakariah, Alias, Aziz & Ismail, 2012). Malaysia Education Blueprint (2013) highlighted 10 shifts by government to leverage Information of communication technologies (ICT) to scale up learning quality cross Malaysia. The three shifts are Nation of lifelong learners, globalise online learning and transform the higher education delivery are the important elements relate to computer network-based environment. Additionally, Dasar e-Pembelajaran Negara 2.0 or National e-Learning Policy 2.0 launched by the government in 2011 is intended to support the 10<sup>th</sup> Malaysia Plan. To develops world-class human capital by focusing on the 12 national key economic areas (NKEAs) particularly in the field of information and communication technology (ICT) (DePAN, 2010) is one of the agenda. DePAN (2010) highlighted two strategies towards developing e-content; original e-content and open e-content (OCW). All higher institution in Malaysia must ensure 25% of the course offered in their institution develop through original e-content development by 2016-2020. For 2025, a higher education institution is expected to grow a minimum of 40% original e-content and 15% open e-content (OCW) content in their curriculum. An emerging concept such as online learning or e-learning which used mainly in the higher education field has led to multiple study of the adaptation and readiness among academicians (Lecturers and students).

The uses of Web-based learning became common in most higher institutions and school in the forms of massive open online courses (MOOCs), virtual learning environment (VLE) and learning management system (LMS) (Hajhashemi, Caltabiano & Anderson, 2018; Hussain, Zhu, Zhang, & Abid, 2018). These learning environments have advantages as could

be accessed anywhere via the web, and quality content associate the educational presentation of contents with a set of interactive tools specifically designed to support distance teaching and learning outside class hours (Al-Rahmi et al, 2018; Chew, 2015). Besides, online learning platform provides opportunities for students to involve a variety of activities and testing that able to attract and enhance their focus and motivation on the learning process. (Al-Rahmi et al, 2018). Furthermore, finding from a study conducted by Daniel, Sarte & Cruz (2019) highlighted students felt relieved from the burden of carrying too many books and photocopies documents as online learning offer changed of instructional resources for teaching and learning. Therefore, the crucial elements of successful implementation of e-learning technologies influences by the user's perception follow by their skill and knowledge operating the technology tools (Daud & Ghani, 2017).

According to Amin (2010), both lecturers and students had their own role in using the electronic learning system provided by the institution in order to ensure all programs in their institution run effectively with the latest technology provided by ministry. According to Gilbert (2015) web based teaching and learning fall into three categories, fully web based, blended format and traditional courses using web based supplements. To fulfil the Malaysia National blueprint 2013-2025, Kolej Poly-Tech Mara (KPTM) Sdn Bhd step forward by taking the challenge to provide teaching and learning using an electronic platform. Thus, Kolej Poly-Tech Mara (KPTM) Sdn Bhd encouraged lecturers to use KPTM Online Learning System known as OLeS since 2010 (Marsam & Amin, 2013). Lecturers have been encouraged by the college management to use the OLeS; which being marked as one of the criteria in staff evaluation. Since 2016, college management showed commitment and effort by conducting a sharing knowledge between lecturers about the uses of the OLeS. However, in KPTM the use of web-based learning has been categorised as a traditional course using web-based as additional teaching sources. Most of teaching and learning activities using face-to-face in the classroom and online activities become additional for presenting supplementary material for traditional study.

However, several previous studies revealed inconsistent results regarding students and lecturers adoption and readiness on the uses of online learning for teaching and learning (Ahmad & Adams, Sumintono, Mohamed & Noor, 2018; Chua, 2015; Daud & Ghani, 2017); Haron & Rahman, 2012; Marsam & Amin, 2013). Additionally, there was several limitation regarding the uses of online learning for teaching and learning such as a lack of computer literacy skills and motivation. (Kamalodeen, Figaro-Henry, Ramsawak-Jodha, & Dedovets, 2017; Oliver, & Townsend, 2013). Furthermore, another big question regarding how ready lecturers are for online learning instruction as they struggle to adapt the change from the traditional classroom to virtual classroom and lack of high speed internet connection in their institution (Ahmad & Adams, Sumintono, Mohamed & Noor, 2018). So, the aim of this study to explore the uses of online learning system (OLeS) in teaching and learning process among lecturers in Kolej Poly-Tech Mara Alor Setar by addressing the issues of lecturers and management readiness in term of competency, support and training. Hopefully the findings from this study will be able to provide a clear sense of direction for the obstacles that are frequently faced by lecturers when integrating online learning in their lesson.

## 2.0 Literature Review

According to Garrison (2011) e-learning or electronic learning refer as any electronic mediated asynchronous and synchronous communication for the purpose to construct and confirm knowledge. Technology tools has helped students carry their own personal small computer such as laptop, Personal Digital Assistants (PDAs), tablets, cell phones and e-book readers (Monther, Liyana, Norjihan & Elaheh, 2017). Meanwhile, online learning which is a technology based student-centered learning approach refers to teaching and learning settings that employ networked computer mediated communications (CMC) technologies that include the World Wide Web (Internet) and course management systems (CMS) and can be accessed through satellite, cable, broadband, or wireless technologies (Kidd, 2008). In this study, online learning system (OLeS) was defined based on these three terms that widely used in the research area.

The uses of e-learning promoted a student centered approach which change the landscape of education field with great flexibility in teaching strategies, interaction between students and teachers and students' assessments (Rasouli, Rahbania, & Attaran, 2016). Many Malaysia higher education institution has committed to implement e-Learning due to its effectiveness comparing to traditional classroom method of teaching (Ahmad & Chua, 2015). In order to fulfil the need of generation Y, instructors need to adopt different roles as facilitators that monitor their classroom activities compared to a source of knowledge that spoon-feed their learners in previous generations (Riasati et al., 2012). The modifications of approaches used in teaching process had led to the different character of learners from passive individual to active individual that responsible for their own learning process by minimal supervision from the instructor in the class (Alsied & Pathan, 2013). The shift of teaching approaches provides good opportunities for the creative and dynamic educators to plan suitable classroom activities; that able to boost up their learners motivation and performances in the learning by maximizing the production and authentic interaction among learners.

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However, there was some issue that hamper the lecturers’ uses and adaptation of e-Learning in the teaching and learning process. According to Sabzian & Gilakjani (2013) lecturers’ competency on their technological skills as one of the elements that give impact on lecturers’ uses of e-Learning in the classroom. Competency is important to make sure the lesson is not going to vain just because of the instructor’s incompetence in operating the technologies during the lesson. Constant observation, workshop, and continuous support for lecturers on technologies integration into teaching will increase lecturers’ competency. Hismanoglu (2012) cited that lecturers are the essential individuals to apply e-Learning in an educational setting efficiently; so it necessary to provide appropriate training and support to cultivate the culture of ICT integration into their classroom. According to Cheok, Wong, Ayub & Mahmud (2017) existing educators are unable to make important changes in their classroom practice due to lack support and professional development to help educators infuse technology into their own classrooms. Besides, there were considerable evidence that teaching online require additional preparation time and this had been labelled as “daunting”, “painful”, “stressful” by many educators in each level of the education system (Kidd, 2008).

According to Elkaseh, Kok, & Chun (2015) the successful implementation of e-learning based on the users’ perception, skills and knowledge of using the computer. Several studies have employed the Technology Acceptance Model (TAM) in technology acceptance and implementation in the information system area and particularly in e-learning (Al-Adwan, Al-Adwan & Smedley, 2013; Hanif, Jamal & Imran, 2018). The technology Acceptance Model (TAM) introduced by Davis (1986), widely used models to explain user acceptance behaviour (Hanif, Jamal & Imran, 2018). Moreover, according to Davis (1989) there were five constructs in the original TAM known as perceived usefulness (PU), perceived ease of use (PEOU), attitude, and behavioural intention to use. Among the constructs, PU and PEOU form an end-user’s beliefs on a technology and therefore predict his or her attitude toward the technology, which in turn predicts its acceptance (see Figure 1).

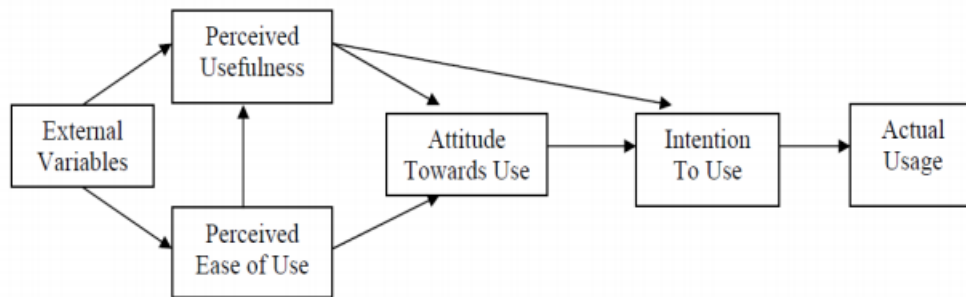


Figure 1: The Original Technology Acceptance Model by Davis (1989)

According to this model, system use is a response of users’ motivation which is directly influenced by a system’s specific features and capabilities which able to inform stakeholders to identify barriers and enablers to adoption of any new technology (Davis, Bagozzi, & Warshaw, 1989). This model posits that user motivation can be explained through perceived usefulness (PU), perceived ease of use (PEOU) and attitude toward a system (Cheok, Wong, Ayub & Mahmud, 2017). According to TAM, the attitude that users formed toward a system will determine if users will accept or reject it (Davis, Bagozzi, & Warshaw, 1989). The two factors include in the Technology Acceptance Model known as perceived usefulness and perceived ease of use which relevant to explain the lecturer use of online learning in Kolej Poly-Tech MARA Alor setar. TAM has been used by researchers worldwide to understand the acceptance of different types of information systems such as elearning system (Shafeek, 2011), online shopping acceptance model (OSAM) (Zhou, Dai & Zhang, 2007), e-commerce (Pavlou, 2003), and online banking (Pikkarainen, Pikkarainen, Karjaluoto & Pahnla, 2004).

### 3.0 Methodology

This research was conducted in November 2018; employed a qualitative approach; whereby data collected through semi-structure interviews as the primary method and online learning records as a secondary method. The primary method used a semi-structured interview with the aimed of gaining rich information for this research. Moreover, by using the qualitative method the intent is not to generalize to other population but to develop an in-depth understanding of the issues (Creswell, 2012). An individual interview session was carried out with each selected participant and took approximately one hour and was carried out in the Kolej Poly Tech MARA Alor Setar. Meanwhile, Online Learning System records logs was collected with permission from the college management to be included as part of this study.

The sampling design used by the researcher in this study was purposeful sampling (homogeneous sampling). For semi-structured interview, the researcher selected six lecturers out of 41 lecturers (2 lecturers from each department) because

the researcher was interested in those lecturers who consistently received acknowledgement from the management as active users of Online Learning System (OLeS) since January 2018. Furthermore, these six lecturers were chosen based on several characteristics such as teaching at the same higher institution in KPTM Alor Star, Kedah; permanent academic staffs, and has more than five years of teaching experience. Based on Creswell (2012), homogenous sampling used by the researcher who purposely selects individuals and sites based on the needed characteristics. Hence, Creswell (2014) stated usually for qualitative design; there is no specific number of sites or participant for the sample size. For the secondary method, all 41 Lecturers (6 male & 35 female) from various fields of expertise were selected as sample. The secondary data used to triangulate the primary data collection.

The Thematic analysis as suggested by Braun & Clarke (2006) was employed in analysing data obtained from the semi-structured interview. Braun & Clarke (2006) suggested a six-phases guide for conducting thematic analysis likely become familiar with the data, generate initial codes, search for themes, review themes, define themes, and write-up. For this study, researcher had recorded the interview, transcript the audio, code or identify the main ideas of the audio into a suitable theme, and later explained each of the code in details supported by previous studies that related to the topic. Meanwhile, data obtained from online learning records were analysed using Descriptive analysis to report the percentage of activities done by each lecturers; to support data collected through semi-structured interview.

## 4.0 Findings

### 4.1 Semi Structured Interview

Several themes emerged from our analyses of the semi-structure interview. The findings were summarized and organized by those as mentioned three main themes.

#### 4.1.1 Management Encouragement and Support

Most lecturers recognized that college management has created great interest among the lecturers. Beside interest, on-going training and sharing knowledge conducted regularly to enhance lecturer awareness on the uses of the online platform to gather students' interest and focus toward the learning process. These on-going training and workshop help to improve their technology literacy and pedagogical knowledge to suit the technology uses and students' need. Below are two evidences from the interview conducted:

*"I had joined training inside and outside the college. My college even sent me to join workshop conducted by UUM on e-learning, m-learning and MOOC. I triggered my interest to explore deeper how to integrate all these technologies with my lesson".*

*"I only joined OLeS workshops conducted every semester by my institution; then I mostly explored myself through Youtube or Internet. We can get everything from the Internet nowadays just work smart".*

#### 4.1.2 Lecturer's Positive Perception

Lecturers expressed their viewed regarding the biggest challenge of while integrating online learning in their teaching and learning. They claimed their tasks became double as they need to spend additional hours for online learning and this material preparation usually required them to use their personal times after working hours. Below is the quote from the interview session:

*"The biggest challenges for me when utilized online learning requires a big amount of personal times from the lecturers for preparation. Example when I want to set MCQ exercises on OLeS, it required me to spend more time to explore; try and error before able to create that."*

Meanwhile, respondents mentioned their problem to cope the teaching pedagogy with the online technology.

*"I still struggle to match my teaching approaches with the use of online learning. It not only about the technology being used but also reflect on the way of interaction with students, formality. Sometime I did feel pissed off with students because they are expecting me to give feedback immediately after complete the task given".*

*"The classroom management was not similar to the uses of online learning. The tendency of internet fraud and games addiction higher. There were times, I asked students access OLeS but*

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*they caught red-handed played games and watched Youtube. But it only a few students behaving in the ways”.*

Despite the challenges the lecturer faced while integrating online learning in their teaching and learning; they still showed good effort to enhance their technological and pedagogical skills in order to improve their teaching skills. Below are the evidences from the interview session:

*“I joined many workshops related to MOOC conducted by other higher institutions.. All these workshops cost me a lot but I willing to pay as I give benefits for my teaching approaches. My institution also conducted workshops regarding OLeS but more on a beginner level, so I took my own initiative by joining workshop conducted by other institutions”.*

*“I didn’t attend any formal training. But I loves to explore and update myself with new technologies for teaching and learning and I am lucky to have a friend that is also teaching in other institutions so we always exchange and share ideas regarding e-learning and how to maximize the benefits for my students”.*

### 4.1.3 The Benefits of Online Learning toward Students

Participants in their interview session made it clear regarding their belief regarding the effectiveness of online learning being used by students while doing their assignment, exercise, tutorial, or presentation. Below are some responses from respondents:

*“Online learning benefitted my learners in term of interaction; I can say they are more confidence in interacting and sharing their opinion in an online platform compared face-to-face in the classroom. I sometimes quite shock to realize a shy student become darling in throwing opinion and commenting about their friends’ task compared in the classroom when they look a bit passive to me”.*

*“Students able to access English materials worldwide and able to imitate the native speaker pronunciation. It helps to bring the gaps between native and non-native speakers. Some of the students able to make friends for native speaker countries and keep on interacting with them in order to improve their English proficiency”.*

*“Without the use of online learning I aware my students tend to easily fall sleep or being bored after 30-45mins; but now when I started to integrate online learning with plenty of quizzes, exercises, interesting illustration and notes; it makes learning more fun and interesting. By having the technology the boring subject can become more interesting with virtual lessons, through a video, or when using a tablet”.*

## 4.2 Online Learning Record

Table 1 has reported 100% lecturers in KPTM Alor setar were the active users of OLeS. The lecturers being classified as an active user if they conducted at least five activities in the online learning environment for per semester.

**Table 1.** Active Users of OLeS Usage (January 2018 Session)

Status/ Department	Computer Science & Mathematic Department.	Accounting & Management Department	General Studies Department
Active	13	15	13
Inactive	0	0	0

Figure 2 illustrated the types of activities conducted by the KPTM Alor Setar Lecturers through the online learning environment. Sharing notes was the activity highly conducted by lecturers, whereas others activities like assignments, quizzes and graded reports also being used by some of the lecturers.

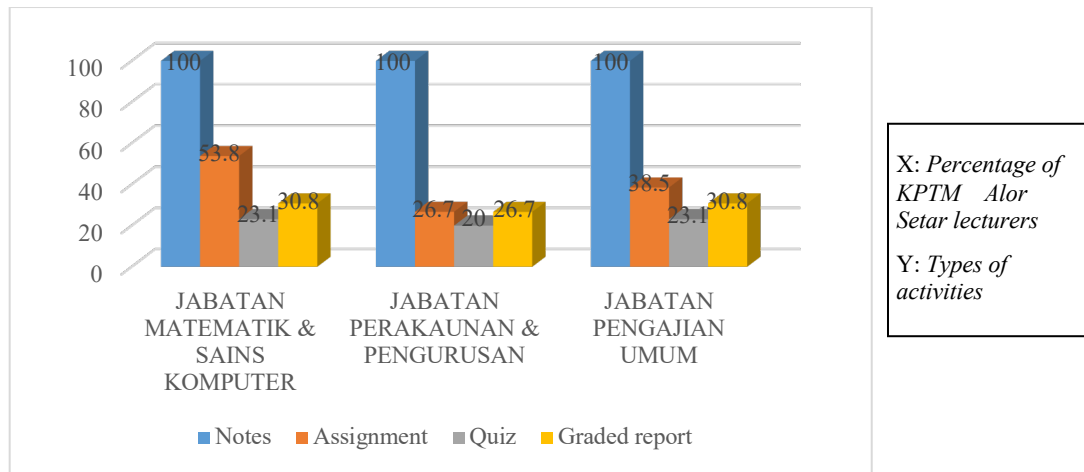


Figure 2. Types of Activity Conducted by Lecturers

5.0 Discussion and Conclusion

This study conducted on the use of online learning system (OLeS) in teaching and learning process among lecturers in KPTM Alor Setar. The result is based on collected from the semi-structured interview, and online learning records showed a positive attitudes among the academic staff. The finding of the semi-structured interview revealed three main themes which are management encouragement and support, lecturers’ positive perception and the benefits of online learning towards students.

Firstly, the management encouragement and support could be seen through their effort on conducting the on-going workshop, financial assistance to attend workshop and training, management acknowledgement to the lecturer that actively use online learning system. This high commitment from management has enhanced the lecturer’ competency on the use of online learning. This supported by the study by Baran, Correia & Thompson (2013) highlighted that it was critical to listen to instructors’ voices and give them ample support and participatory role in order to form successful online teaching and learning. Secondly, the lecturers’ positive attitudes towards the use of online learning give impact on their active use of online learning. In addition, there was another reason for the lecturers’ positive attitudes toward the use of online learning among lecturers which is the effectiveness of leadership. The college administrator facilitates access to ICT by teachers, students and the administrative staffs and always try to improve the facilities times by times. Furthermore, lecturers were encouraged to participate in seminars, workshop and professional development program related to the online or mobile learning organized by other institution. Previous studies suggested the attitudes of educators and learners towards e-learning in an educational context was a strong predictor in benefiting from e-learning as well as having an impact on their success (Erarslan & Topkaya, 2017; Rhema, Miliszewska & Sztendur, 2013). Thirdly, the finding revealed the active uses due to the facts every lecturers believe the online learning brings more benefits than harms toward their students. Due to the lecturers belief, the lecturers keep on using online learning even encounter some problem while integrating it in their lesson. The lecturers believe the use of online learning able to attract their students to become the focus on the teaching and learning process. The lecturers able to make variation in teaching process using online learning; through simulations, digital gaming and online quizzes and assignments. Yap (2016) highlighted the use of Internet or technologies able to enhance students’ learning experiences and engagements between learners or lecturers. Nguyen (2015) stated that online learning provides a world class education to anyone, anywhere, and anytime as long as they have access to the Internet. These three themes supported by data from online learning records that showed 100% of lecturers in KPTMAS are an active user of OLeS.

These three themes support the two elements in the Technology Acceptance Model (TAM) which are perceived usefulness and perceived ease of use. The high adaptation on the online learning due to the fact the lecturers believe using online learning enhance their students and their quality of teaching (Perceived Usefulness) and the online learning easy to use compared to the traditional method (Perceived Ease Of Use). In Conclusion, both lecturers and institution management have their own role in promoting and implementing online learning in the higher level institutions. Lecturers are encouraged to develop their competency on technology skills or more technology-integrated lesson while institutions are advised to provide better and sufficient technology tools or facilities to be fully utilized by lecturers. The cooperation between instructors and institution administrative will produce more effective technology integrated lesson that could attract and motivate students in the learning process.

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