

Benefits and Difficulties in Using Learning Management System (LMS) in Paragraph Writing Class: A Study of a Lecturer's and Her Students' Perception

Muhammad Nurul Multazam, Chairil Anwar Korompot*, Munir Munir

English Department, State University of Makassar, Indonesia

*Corresponding E-mail: cakorompot@unm.ac.id

Abstract

The objective of this research was to find out benefits and difficulties in using learning management system (LMS) in paragraph writing class: a study of a lecturer's and her students' perception. This research employed a mixed method research called a convergent parallel mixed method design with qualitative and quantitative data. The population of this research were a lecture and 30 students from class A and 34 students from class B of English department at UNM in academic year 2019. The data were collected through questionnaire for the students and in-depth interview for the lecturer. The findings showed that the benefits of LMS perceived by the lecturer are it is complete, easy to use, has good features, effective to design the meetings and assignments, reducing the use of internet quota, and extensive time to do the task. While her difficulties are it is not socialized well, difficult to create a video, poor signal, and there is no feature for correcting paragraph writing. Meanwhile, the benefits of LMS perceived by the students are accessible material, well-organized, easy assignments submission, fun quiz, helpful video explanation, less paper, not time consuming, and improving skill in technology and punctuality. In contrast, their difficulties before Covid-19 pandemic are technical problem in paragraph writing, sometimes it was inaccessible due to bad network, and there was no enough credit for the internet. Likewise, their difficulties during Covid-19 pandemic are LMS was often error, cannot ask the lecturer directly, bad network to open the video, and sometimes it took the answers wrong even they are already correct. It is suggested that it is significant to preserve the benefits and overcome the difficulties in using LMS especially in paragraph writing class.

Keywords: *LMS, Paragraph Writing, Perception*

1. Introduction

In this digital era, the people have been surrounded by the use of technology in daily life. Nowadays, most people have applied e-learning as the technology usage especially in the field of learning. Moreover, due to Covid-19 pandemic, the government,

bureaucracy, public figure, health experts recommend all students to study from home via online system. The direct teaching and learning process is transformed into virtual way. Some people have accustomed to use online platform for teaching, yet others have

assumed that handling online class (e-learning) is alternative, new, enjoyable, and quite challenging (Naidu, 2006; Nur Afrizah, 2018).

One of e-learning varieties is called learning management system (LMS) that is various platform supporting through numerous ways. Nadire (2015) explains that Learning Management System (LMS) offers the computer-generated platform for online learning by qualifying the management, checking learners, etc. Despite its potential effects, the result of students' achievements has showed a fluctuant outcome (Pektas and Demirkan, 2011).

Mustarin & Wiharto (2019) who have researched the perspectives of learners on the application of LMS in the Aquaculture Technology in the Agricultural Technology Education Study Program at UNM. Nevertheless, studies on perception regarding LMS are still lacking.

Hence, it is significant to identify more about the implementation of LMS, the difficulties and the benefit of LMS perceived by the lecturer and the second semester students of English Education Department at UNM especially in paragraph writing class before and during Covid-19 pandemic era. Moreover, from the preliminary research, the writer found that the lecturer used LMS before Covid-19.

Thus, this research aims to provide descriptive accounts of the lecturer's and students' perception of the benefits and difficulties of using LMS in teaching Paragraph Writing before and during the Covid-19 pandemic.

2. Literature Review

There are some researchers who have conducted some studies related to LMS such some publications related to Online Learning and LMS practices (Laurillard, 2012; Tosun, 2015; Kakubo, G., Suleman, & Marsden, G., 2013; Larasati & Andayani, and 2019; Mhungu, 2018).

The most preferred and most accessible LMS facilities by the students consist of: projects, notices, references, dashboard and the online chatting area. Furthermore, the least used device for retrieving the services is mobile phones, commonly because of insufficient project of LMS for mobile interaction (Ssekakubo. G, et.al., 2013).

Furthermore, Mhungu (2018) performed research which revealed that difficulties regarding the use of LMS function as prevailing perceptions rather than substantive.

2. 1. E- Learning

Naidu (2006) defines that the e-learning terminology involves a lot more than virtual learning, networked learning, web-based or networked learning, and online learning. As alphabet "e" in e-learning stands for "electronic", it integrates all learning actions that are held by each person or team who does the assignment through virtual or offline ways via e-based or computers and other electrical tools.

On the contrary, the volume of workrooms and computers, as well as bandwidth connectivity, last to be the fore most intimidations to applying online learning.

When the interferences were solved the involvement of web-based revolved out to be agreeable for the EFL learners (Mosquera, 2017). In term of e-learning or ICT, one of the software applications used in teaching and learning process is called as LMS which has been used in several places.

2. 2. LMS in Indonesia context

Learning management system (LMS) is application software to manage documents and tracing online progressions. The examples of LMS are Moodle, Blackboard, and WebCT. Modular Object-Oriented Dynamic Learning Environment (Moodle), is one of the commercially obtainable and accessible basis LMS schemes (Hotrum, Ludwig & Baggaley, 2005; Winter, 2006; Cavus & Momani, 2009 in Cavus, 2019).

The use of Moodle LMS is evaluated in project cooperation and revealed that the usability stages were pleasing. Though it has many benefits, the use of LMS in design studios has been infrequent, yet. While explains that LMS-moodle (<http://moodle.org>) was intended based on community constructionist viewpoint (Nugroho, 2015; Pektas and Demirkan, 2011; Wilson in Jati, 2012)

Similarly, it also allows discussion among the members through instant messaging and online discussion forums. In the scheme studio, LMS allows students to communicate with teachers and other affiliates, provide and accept online evaluations, download progression lessons, design instructions, submit project sketches or scheme plans, and

give the key structures or functionalities to deliver a learning setting. All of them are held via an organized border as a general scheme (Mothukuri, 2017; Ouadoud, et. Al, 2017; Pektas, 2012).

Murad, et.al (2018) revealed that since 2014 the Indonesia government arrange a virtual learning creativity for university to rise learner access to excellence progresses naturally provided by competent academies or educators in Indonesia.

The application procedure of LMS involving 2 campuses under PGRI was just done for the first period, so there were some limitations during the application course, and low bandwidth network when synchronously was done in the application of virtual learning (Hudha, 2018).

Cavus (2015) and Coats, H, et. All (2005) found that an LMS delivers the comprehensive and pedagogically knowledgeable platform for the online learning setting and particular corporate structures of LMS such as interaction between student and learning material, registration process, class scheduling, class management, keeping students, teachers, and system records (logs), accessing the examinations and recording the results, submitting assignment, keeping and reporting grade, tracing student attendance records, checking their own learning duration for students, distributing e-learning materials, and sharing knowledge or ideas.

Moreover, if LMS has extensive effects on the organization of higher education, it is

noticeably influencing learner to know the customs and knowledge. Learner assignation denotes to the knowledgeable, demonstrative and applicable communications that learners have with pedagogically determined accomplishments and settings (Kuh, 2001 and McInnis, 2002 in Coats, H, et. all, 2005).

2. 3. Benefits and Difficulties in using LMS

The action of assimilating e-learning particularly in implementing LMS into education is a problematic procedure and may encounter several multifarious things. The multifaceted things or problems are known as “barriers” (Schoepp, 2005).

Bingimlas (2009) states that generally a number of studies have acknowledged a variety of the same issues as prevalent barriers/ obstacles: deficiency of CPUs, deficiency of worth software, deficiency of time, mechanical matters, educators’ approaches towards PCs, deprived finance, deficiency of educator self-confidence, confrontation to alter, deprived organizational maintenance, deficiency of PC talents, deprived suit the curriculum, lack of stimulus, scheduling problems, deprived practice chances, and deficiency of abilities in assimilating online learning in teaching.

Generally, there are two common obstacles, such as educator-level obstructions and school-level barriers in deficiency of teacher self-confidence and competence, and refusal to change & negative mindset. Furthermore, lack of time, lack of effective training, lack of accessibility, and lack of technical support are also included as the school-level barriers.

In addition, in using ICT through LMS, the benefits are explained by (Al-Munawwarah, 2014; Cakici, 2016; Fyntanoglou and Kartaloglou, 2015; Schumacher & Suri, 2008) namely it is mainly utilized for organizing course material and not for interaction and communication, it performed on the features: agenda (calendar), content (publish educational material), discussions (forum), links (relevant material in internet), announcements and course description, mitigate in uploading the resource files, and facilitate in accessing the system.

Difficulties in using LMS are described in Fyntanoglou and Kartaloglou (2015) as follows:

It became evident that the communication through the platform is limited and used to facilitate the instructors’ communication with students and not the other way around. It has minimum functionalities such as distribution of course material, collection of students’ work and dissemination of information relevant to course happenings.

The students who did not have any experience with forums were intrigued by the description of its capabilities and claimed that they would like to have the function available in their courses.

The lack of training; as both instructors and students pointed out, the familiarization with the platform depends on personal experimentation with it.

The difficulties or problems that is likely to arise when implementing LMS as online technology can be grouped into technological, psychological, educational,

pedagogical, and socio-economic factors (Lyashenko, 2014)

2. 4. Writing

Learning to write is necessary as what Olson and Torrance (2009) explained that writing has three distinct advantages, namely: 1) it is a careful, considerate way of communicating; 2) it forces clarification to your understanding. 3) it presents richer idea than the one shared in speaking.

Related to paragraph writing, Alsmari (2019) analyzed the potential effects of using Edmodo as a supplementary tool in attempt to enhance EFL students' writing skills particularly descriptive paragraph writing.

Since the emergence of the Covid-19, almost the entire world has decreased in several sectors. One sector that is very influential is the education sector. The Indonesian Minister of Education, Nadiem Makarim issued a Circular Letter No: 15 of 2020 "which ordered all employees, lecturers, staff, and students to carry out online learning at home during Covid-19" (Ministry of Education and Culture, 2020). Therefore, in this research, the use of LMS in paragraph writing class will be discussed before and during Covid-19 pandemic.

2. 5. Perception

Erah and Dairo (2008) reveal the pharmacy students' perception of the application of LMS in their training. Particular intentions are to (1) determine the students' access to computers and internet in or outside campus,

(2) assess the difficulties students are likely to have in applying LMS, and (3) evaluate the students' willingness to apply LMS in their learning.

Srichanyachon (2014) studied about the views, attitudes, and perspectives of undergraduate students using Learning Management System (LMS) along with traditional face-to-face learning. The factors influencing the adoption of LMS based on users' own experience are being the main point of Srichanyachon study.

3. Research Methodology

This research applied a mixed method research design which is suggested by Mills and Gay (2016). In addition, the design of this method is a convergent parallel mixed method design. The study was undertaken at Makassar State University (UNM).

The participants were one EFL lecturer who was involved in interview session and filled in open-ended questions from the modified questionnaire from SSkekakubo, et. al (2013) to elicit perception. While the participants from the students consisted of the second semester students of English education department at UNM in academic year 2019/2020). The researcher chose a lecturer and 30 students from two different paragraph writing classes, (A class consists of 30 students and B class consists of 34 students) in a random sampling. The researcher determined the number of clusters needed 15 students from each class.

The second, in-depth interview was conducted to the lecturer. This interview in this research is aimed to gathering more in-depth data of lecturer's perception about her difficulties and benefits in using LMS in paragraph writing.

Data analysis was conducted by using the qualitative data analysis, covering four stages namely (1) data reduction, (2) data presentation, and (3) conclusion based on Miles and Huberman theory in Saat and Mania (2019).

4. Findings and Discussions

The findings of this research discuss two main areas namely the lecturer's and students' perception of the benefits and difficulties of using LMS in teaching Paragraph Writing before and during the Covid-19 pandemic

4. 1. The benefits of LMS perceived by the lecturer in paragraph writing before and during the Covid-19 pandemic

Before covid-19, it was found from the finding that there are many benefits of the use of LMS perceived by the lecturer such as LMS is complete and complex, easy and comfortable to use, and effective. The lecture thinks that it is easy to use, yet even it is easy to use, it must be socialized.

Similarly, (Cakici, 2016; Mothukuri, 2017; Pektas and Demirkan, 201; Wilson in Jati, 2012) evaluated the usability of Moodle LMS in design teamwork and found that the usability levels were satisfactory and effective.

The lecturer also confirmed that the students can submit their tasks through LMS because there is tab provided to submit the assignments there, such as word file, pdf, etc. In line with it, Ouadoud, et. al (2017) stated that the learners can consult and/or download the resources upload by the teacher, while tracking their progress in training they can produce their own learning activities.

LMS also can reduce financial matter and the students have much time to do the task. The lecturer confirmed that the material is complete in the file form which must be read, or the video which she taught, so they may reduce the use of internet quote. When she gave assignment, she did not only give time for 24 hours, but can be for 3 days even a week.

4. 2. The difficulties of using LMS perceived by the lecturer in paragraph writing

It is revealed from the interview with the lecturer that the use of LMS before Covid-19 was not socialized well and it is difficult to create a video. This case is in line with Living stone findings which mentioned about the complicated classroom management, the unexperienced teachers, the obstacle in choosing the best technological tool to match with course content, etc. (Living stone in Cakici, 2016). In this case, the lecturer confirmed in the interview that the LMS has not been socialized well in her campus so that they have less experienced in it.

LMS needs to be socialized well because it is so complex and new for some people. These complex things or difficulties are known as "barriers" (Schoepp, 2005). It is also

encountered by the interviewee that all of the lecturers should be given training to use it.

While during Covid-19, the lecturer found poor signal, and no-good features for correcting paragraph writing. Referring to poor signal, Murad, et.al (2018) revealed that several general issues are limited access and capacity of high-quality colleges which are mostly concentrated in Java and limited quality education resources. It also happened in Unikama which poor internet network when synchronous virtual was done in the implementation of online learning (Hudha, 2018). Meanwhile, the difficulty due to the poor signal also becomes the reason at UNM especially in paragraph writing class. Consequently, when the students are in the village, the poor signal and poor funding must be understood by the lecturer.

Bingimlas (2009) identified the barriers such as lack of computers, lack of quality software, lack of time, technical problems, teachers' attitudes towards computers, poor funding, lack of teacher confidence, resistance to change, poor administrative support, lack of computer skills, poor fit with the curriculum, lack of stimulus, scheduling problems, poor practice opportunities, and lack of ability in integrating e-learning in education.

However, the lecturer found that in teaching paragraph writing by using LMS, technical problems might appear such as in the process of video editing before being uploaded to LMS. Besides, she suggested that in paragraph writing, it is good to provide grammar checker. Thus, automatically, the

machine can check. It means that before the lecturer checks, the machine has corrected the grammatical errors. Then the lecturer just gives score for coherence and cohesion in writing the content, because the grammar has been corrected.

4. 3. The benefits and difficulties of LMS perceived by the students in paragraph writing before and during Covid-19

In general, the student's perception related to LMS are 97% of them can access it from their mobile phone. 39.4% feel somewhat comfortable in using LMS in mobile phone. There are 57.6% of them somewhat experienced while just a few of them are somewhat unexperienced and struggling to use it.

Meanwhile, 39.4% of the students access LMS for 1-2 days a week. There are 36.4% access LMS for 34 days a week. Whereas, 12.1% access it every few weeks, 9.1% never access it, and the least number of them access it about once every day.

There are 39.4% of the students who access the LMS through PC/ laptop most of the time. Meanwhile, 18.2% of them rarely use PC to access LMS. Surprisingly, a few of them access LMS by using PC all of the time. There are 39.4% access LMS by using mobile phone some of the time while 12.1% of them do it all of the time.

Most of the students prefer laptop computer and mobile phone devices to use LMS. However, there are a few of them choose PC/ desktop computer device to use LMS.

Similarly, most of them (87.9%) used LMS to study paragraph writing before Covid-19, yet there are 12.1% of them did not use LMS to study paragraph writing.

4. 4. The benefits of LMS perceived by the students in paragraph writing before and during Covid-19

It was found from the finding that there are many benefits of the use of LMS can assist the students to access the material anytime and anywhere, because it is organized well. Before and during Covid-19, the benefits of LMS were relatively the same. It is in line with Ssekakubo. G, et.al. (2013) finding that the most popular LMS services by the students including assignments, announcements, resources, course outlines and the chat room.

Furthermore, the students can submit the assignments easily, and the quiz was fun because LMS has some features to submit the assignments since the quiz that the lecturer made is fun to do. Cavus (2015) stated that an LMS provides the platform for the virtual learning environment and some common features.

In addition, the video explanation can make the students understood since in face-to-face meeting, the students can meet their lecturer and listen to the explanation directly. While in LMS, as a part of ICT, the students cannot meet the lecturer, so they find the explanation only from the video sent by the lecturer. Hence, ICT increases learners' motivation, individual commitment and engagement, improves independent learning, and learners' attainment and outcomes are improved (Haucine, 2011).

LMS also makes the students easy to write without handwriting and less paper. By using LMS, the assignment is just sent without writing by hand or printing. It is in line with what Al-munawwarah, (2014) found that there were three benefits of using ICT in English teaching and learning process; namely, assisting the teachers to conduct interesting and enjoyable learning activities, promoting learner independency, and motivating the students to learn.

Moreover, it does not spend many times and improve the students' skill in technology to do the task and submit it, they do not need much time. Besides, they also can improve their ICT knowledge. Lyashenko (2014) explains that LMS is aimed in obtaining several goals such as enhancing digital skills of teachers and students, facilitating learning practices in the active environment of all the participants online and offline, improving students' involvement into active educational process, and creating conditions for active educational process.

The students perceived that they can access LMS anytime by using mobile phone or laptop many times. It means that LMS is easy to access anytime and anywhere by the students. Indeed, LMS is an easy, fast and transparent way to store and disseminate course material, also they evaluate learners' progress, supplying them with constructive feedback while supporting and encouraging them. (Fyntanoglou and Kartaloglou, 2015).

Besides, the students can notice the punctuality in submitting the assignment, so that they can manage the time well. When the lecturer designs the material, she has

determined or set the score which appears at the end of the quiz.

4. 5. The difficulties of LMS perceived by the students in paragraph writing before and during Covid-19

From the questionnaire, it was found that the difficulties faced by the students in learning paragraph writing, especially before Covid-19 was the subject of paragraph writing is difficult, while during Covid-19 the difficulties are sometimes the LMS was error or inaccessible, bad network and down server, and some of the students had no enough budget to provide the internet quota. The personal problems are actually related to the students' engagement in understanding paragraph writing. Student engagement related to the intellectual, emotional and practical interactions that students have with educationally purposeful activities and conditions (Kuh, 2001 and McInnis, 2002 in Coats, H, et. all, 2005).

Larasati & Andayani (2019) in their article revealed that all the qualities provided from e-learning which have not been able to satisfy students as users due to various factors, including students as users feeling uncomfortable in accessing e-learning, lack of accuracy, and there is no immediate if there is an error in the use of e-learning. It means that the error LMS makes the students difficult to access.

The technical problem in learning the paragraph writing which is perceived as a difficult subject to understand by the students because they have to learn how to

arrange the sentences, grammar focus, difficult to differ written and spoken language, lack of vocabulary, difficult to find ideas, etc.

On the other hand, a few students perceived that there was no difficulty in learning paragraph writing, especially before Covid-19. As they do not get any difficulties in learning this subject personally, and the lecturer explained the material clearly. In fact, before it, they learned about this subject offline for about four meetings, and then continued with LMS.

It was also revealed that the difficulties faced by the students in learning paragraph writing, especially during Covid-19 are LMS was often error, get difficulty in understanding the explanation because they cannot ask the lecturer directly. It became evident that the communication through the platform is limited and used to facilitate the instructors' communication with students and not the other way around (Fyntanoglou and Kartaloglou, 2015).

Besides, the sound of the video was small, inaccessible or bad network to open the video in LMS (buffering), so they have to wait till midnight to open the LMS, and sometimes the system took it wrong, even the students' answers are right. Lyashenko (2014) explained that technologically (for example, inefficient capabilities of the platform (size, interface, dependence on good internet connection etc.) have become one of the problems in using LMS.

It was suggested by the students in using LMS that the LMS at campus should be

improved, so the students can access it without any trouble/error, the template should be changed because it looks conventional or not attractive, the handwriting is still important because it is paragraph writing subject, the lecturer should improve the material, and the kind of assignment is not monotonous, LMS could be the only media at UNM to use, and each material should be with video explanation.

Related to the use of video, Pektas (2012) explained that LMS can accommodate access to all course related resources including calendar, assignments, readings, images, videos, etc. It also facilitates communication between the participants through online discussion forums and instant messaging. In the design studio, an LMS allows students to communicate with instructors and team members, give and take online critiques, download course materials, design briefs, submit design sketches and design projects. All of these are managed by a structured interface.

In line with the descriptions above, it is suggested to the institutional stakeholders who play an important role to set the standard for noticing the complex adoption processes of applying LMS. Certainly, leadership can play a formative role in promoting the institutional research and reflective practice required to develop understanding of the educational role of LMS in institutions, and in higher education in general (Coats, H, et. all, 2005).

5. Conclusion

The benefits of LMS perceived by the lecturer are LMS is complete and complex,

easy and comfortable to use, has good features, effective to design the class/meetings, good to design the test/assignments, reducing the use of internet quota, and extensive time to do the task.

The difficulties perceived by the lecturer are it is not socialized well to all of lecturers, the lecturer gets difficult to create a video, poor signal, and there is no good feature for correcting paragraph writing.

The difficulties faced by the students before Covid-19 pandemic are technical problem in paragraph writing, sometimes LMS was inaccessible, bad network and down server, and there was no credit for the internet.

During Corona pandemic LMS was often error, getting difficulties to ask the lecturer directly, bad network to access the video, and sometimes took the answers wrong even they are already correct.

The benefits are it can assist the students to access the material anytime and anywhere, because it is organized well, the students can submit the assignments easily, the quiz was fun, the video explanation is easy to understand, less paper in doing writing, not time consuming, improving the students' skill in technology, the students can access LMS anytime, and the students can notice the punctuality in submitting the assignment.

References

Afrizah, N. (2018). The implementation of Yuk Blajar as E-learning platform in English learning at SMP Islam Al-Azhar 13 Surabaya (Doctoral

- dissertation, UIN Sunan Ampel Surabaya).
- Al-Munawwarah, S. F. (2014). Teachers' perceptions on the use of ICT in Indonesian EFL learning context. *English Review: Journal of English Education*, 3(1), 70-80
- Alsmari, N. A. (2019). Fostering EFL Students' Paragraph Writing Using Edmodo. *English Language Teaching*, 12(10), 44-54.
- Bingimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature. *Eurasia Journal of Mathematics, science and technology education*, 5(3), 235-245.
- Cakici, D. 2016. The use of ICT in teaching English as a foreign language. *Journal of Participatory Educational Research (PER) Special Issue-IV*
- Cavus, N. (2015). Distance learning and learning management systems. *Procedia-Social and Behavioral Sciences*, 191(2), 872-877.
- Fyntanoglou, D. & Kartaloglou, E. (2015). Improving the Interaction and Communication through the LMS Open Class in Blended Learning. Sweden: Linnaeus University of Sweden. 2.
- Jati, G. (2012, November). Maximizing learning management system (LMS) in higher education: an ELT case. In *Proceedings of the 59th TEFLIN International Conference*. English Language Learning and Teaching in the Digital Era. Widya Mandala Catholic University Surabaya (pp. 6-8).
- Larasati, N. A., & Andayani, S. (2019). Pengaruh Penggunaan Learning Management System (LMS) Terhadap Tingkat Kepuasan Mahasiswa Menggunakan Metode DeLone and McLean. *Jurnal Teknik Informatika UNIKA Santo Thomas*, 4(1), 13-20.
- Lyashenko, M. S. (2014). The use of learning management system (LMS) in teaching a foreign language in the university. *Austrian Journal of Humanities and Social Sciences*, (11-12), 118-123.
- Mhungu, B. A. (2018). Students' and lecturers' perceptions of the usefulness of LMSs in studio-based teaching and learning spaces at a University of Technology (Doctoral dissertation, Cape Peninsula University of Technology).
- Mills, G. E & Gay, M. Airasian (2016). *Educational research*. New Jersey: Upper Saddle River.
- Ministry of Education and Culture. (2020, March 17). Surat Edaran Mendikbud. Retrieved August 27, 2020, from Bersama Hadapi Korona: <https://bersamahadapikorona.kemdikbud.go.id/surat-edaran-mendikbud/>
- Mosquera, L. H. (2017). Impact of Implementing a Virtual Learning Environment (VLE) in the EFL Classroom. *Ikala Journal*. Medellín,

- Colombia, Vol. 22, Issue 3, pp. 479-498, ISSN 0123-3432
- Mothukuri, U. K. et al., (2017). Improvisation of learning experience using Learning Analytics in eLearning.
- Murad, D.F., et. al. (2018). Recommendation System for Smart LMS Using Machine Learning: A Literature Review. 4th International Conference on Computing, Engineering, and Design (ICCED)
- Mustarin, A., & Wiharto, M. (2019, April). Persepsi mahasiswa terhadap penggunaan program e-learning berbasis LMS pada Mata Kuliah Teknologi Budidaya Perikanan. In Seminar Nasional LP2M UNM.
- Naidu, S. (2006). E-learning: A guidebook of principles, procedures and practices. Commonwealth Educational Media Centre for Asia (CEMCA)
- Olson, D. R., & Torrance, N. (Eds.). (2009). The Cambridge handbook of literacy. Cambridge University Press.
- Ouadoud, M., Nejjari, A., Chkouri, M. Y., & El-Kadiri, K. E. (2017, October). Learning management system and the underlying learning theories. In Proceedings of the Mediterranean Symposium on Smart City Applications (pp. 732-744). Springer, Cham.
- Pektas, S. T. (2012). The blended design studio: An appraisal of new delivery modes in design education. *Procedia-Social and Behavioral Sciences*, 51, 692-697.
- Schoepp, K. (2005). Barriers to technology integration in a technology-rich environment. *Learning and Teaching in Higher Education: Gulf Perspectives*, 2(1), 1-24.
- Schumacher, M., & Suri, H. (2008, August 14, 2009). Monash University Information Technology. Blackboard, Moodle and Sakai explorations. Retrieved 27 August, 2020, from <http://www.monash.edu.au/education/ausakai08/blackboard-moodle-sakai-explorations-margot-schuhmacher-harsh-suri.pdf>
- Ssekakubo, G., Suleman, H., & Marsden, G. (2013). Designing mobile LMS interfaces: learners' expectations and experiences. *Interactive Technology and Smart Education*.
- Srichanyachon, N. (2014). EFL Learners' Perceptions of Using LMS. *Turkish Online Journal of Educational Technology-TOJET*, 13(4), 30-35.
- Tosun, S. (2015). The effects of blended learning on EFL students' vocabulary enhancement. *Procedia-Social and Behavioral Sciences*, 199(1), 641-647. doi: 10.1016/j.sbspro.2015.07.592