The Influence of

by Artikel 3

The Influence of Online Learning Media on Students' Learning Outcomes

Aria Septi Anggaira
IAIN Metro Lampung, Indonesia

Corresponding Author: ✉ ariaseptianggaira@metrouniv.ac.id

ABSTRACT

The purpose of this study was to determine the influence of online-based learning media (padlet) on teaching media courses. This research is experimental research using a form of quasi-experimental design. The research was conducted on students of the English Study Program IAIN Metro. Samples were taken by Cluster Random Sampling technique with a sample of 24 students The research was conducted online through Zoom meetings and online quizzes. Data collection techniques by giving Pretest and Posttest using t-test. The results of the study can be concluded that the learning outcomes of students who apply padlet learning media are higher than the learning outcomes of students who apply direct learning models. This means that there is an influence on the use of padlet learning media on student learning outcomes. The use of game-based learning-based technology can be put to good use for learning needs.

Keywords: *Learning Media, Online, Padlet, Learning Outcomes*

INTRODUCTION

In the process of improving human resources, educators play a very important role. Through the learning process, the success of educators and learners can be measured. In addition, the determining factor for the success of the learning process is the accuracy of using learning media. A lecturer is required to understand learning methods, especially related to the selection of learning media. According to (Abidin, 2016) learning media can help students get information, ideas, skills, ways of thinking.

Learning Media is an important element in the learning process. With the media, students will more easily understand what the lecturer explains in the learning process. There are various types of media, such as print media, books, modules, lks and also electronic media, video, audio, and multimedia presentations, and can also use online or online content (Falahudin, 2014).

The use of technology as a learning medium makes expansion of student opportunities in improving their learning. According to Akcay, Durmaz, Tuysuz, & Feyzioglu, 2006; Krishnasamy, 2007; Rais, Karim, & Hashim, 2004) the use of technology and information in learning, especially chemistry, is very important. Learning with visual media devices provides benefits, such as exploring individual emotional morality, creating effective communication, and providing flexibility in learning activities. Meanwhile, according to Lancashire, (2000) multimedia integration in the website provides several advantages, namely learning materials can be viewed anytime and anywhere; learning materials can be updated at any time; by organizing

hyperlinks, students can access other relevant learning resources; and can contain documents not found in textbooks, such as spectra, molecular graphs or videos.

A learning media that is expected to improve student learning outcomes from all cognitive, affective, and psychological aspects in public relations courses. This is in line with the statement (Munadi, 2016) that interactive media has several advantages, namely increasing student learning motivation, and providing feedback, where interactive learning media can provide immediate feedback on the learning outcomes carried out and program control is entirely the user, namely students.

The media used in this study is game-based learning padlet learning media developed through software technology and smartphone mobile applications. The development of software technology and mobile applications on smartphones has presented various services to facilitate the organization of the learning process in the classroom. Learning in the classroom is carried out anytime and anywhere with the presence of communication technology in the current era of the industrial revolution 4.0. According to Rini Sefriani & Sepriana (2020) Software and mobile applications are currently developed by integrating the needs of teacher and student interaction patterns to integrate curriculum and learning resources according to the wants and needs in the current learning process, especially during the covid pandemic which makes learning limited.

Padlet is an app created by Nitesh Goel in 2008 in the United States. Apps can store and copy files and documents that teachers can then send to students. Padlet apps are used to collaborate and communicate learning objectives by teachers and students. Through e-learning-based media, it can be easier for students to express their ideas or ideas in every learning Qulub, T., & Renhoat (2019). Padlet is one of the internet-based learning media that functions as a place to share information in the form of text, photos, links, and videos called walls. This application can be used by teachers as a substitute for whiteboards in the classroom (Sari, 2019).

The functions of the Padlet application according to Harmer (2007) in learning include the following: 1). Place of Discussion. The discussion referred to in Padlet's media is a group discussion. Teachers and students can stick the results of their discussions or materials on the Padlet wall. 2). Feedback. This feedback is given by the teacher to help students understand a lesson by responding to the work done by other students. The Padlet app can accommodate responses that arise from learners. 3). Group Work. When the first group submitted an answer through this medium, the teacher instructed the other group to check the answer that the first group had posted. So that all group members can understand the opinions of group members who have submitted answers. 4). Learner Portfolio Documentation. A portfolio is a collection of student assignments that demonstrate progress, skills, and effort in one or more fields.

So the Padlet application is an alternative media created digitally based for teachers and students to store the results of the learning process in the classroom. The important thing that needs to be underlined from the use of Padlet in writing learning delivered by Rashid, Yunus, & Wahi (2019) is the advantage of using the Padlet application in writing learning is that students can practice writing essays very well and with caution. In addition, this application also fosters students' creativity in writing.

Based on the above phenomenon, it can be seen that the selection of game-based learning padlet learning media is a form of service to make it easier for students to understand teaching media learning materials and one of the innovative ways to improve student learning outcomes. In other words, from research that has been done

397

previously through game-based learning padlet learning, students are more enthusiastic in following learning both online and offline because it is game-based learning that can be accessed easily via mobile smartphones. Therefore, from the description that has been explained, this study examines and sees the influence of Padlet learning media on student learning outcomes. The purpose of this study is expected that the use of online game-based learning media can increase student motivation so that learning outcomes also increase. Pebriani's statement (Rizki Pebriana, 2017) that learning motivation is an encouragement that plays a role in learning because if learning motivation is high, it will affect the learning outcomes of students.

METHOD

This research is a quasi-experiment. Sampling technique using cluster random sampling. The independent variables in this study were pretest and posttest result data from the experimental class and the control class. The sample in this study was a 3rd-semester student of class A experimental class with the implementation of online learning media (padlet) as a control class with media commonly used by lecturers. The data collection method is carried out by the description test method / in the form of essay questions. Which, cognitive learning outcome data is calculated by homogeneity and normality tests, two-variance similarity tests, t-tests, N-gain tests, analysis of influence between variables, and determination of coefficients of determination. The test aims to determine the influence and how much influence the use of Padlet sapplication-based learning media on student learning outcomes.

RESULTS AND DISCUSSION
Student Cognitive Competency Results

The following are presented the post-test results of students in the control class and the experimental class as a whole in Table 1:

Table 1. Student Cognitive Competency Results

Statistics	Control Class	Experimental Class
Number of Samples	24	24
Average	63,50	86,25
Top Rated	63,75	87,10
Lowest Value	62,25	85,25
Standard Deviation	1,478	1,375

Based on Table 1, the average score of students in the experimental class who were treated with game-based learning padlet learning media showed higher cognitive learning competence of students than the control class that used direct learning, namely in the experimental class 86.25 and in the control class 63.50. In this study, hypothesis testing for students' cognitive learning competencies was carried out using t-tests. Before the t-test was carried out on the two samples, a normality test and a homogeneity test were first carried out on the final test value data obtained from both sample classes. In line with Purwanto's opinion (2015), cognitive learning outcomes assessment is a process carried out to assess the completeness of student learning after carrying out the learning process.

398

In this study, hypothesis testing for students' cognitive learning competencies was carried out using t-tests. Before the t-test was carried out on the two samples, a normality test and a homogeneity test were first carried out on the final test value data obtained from both sample classes. This normality test has the criterion that the sample is normally distributed if the results of L0 < Lt with a real level of α = 0.05. The calculation results of the normality test using the chi-squared test in Table 2. As for the variance homogeneity test, it is intended to test the homogeneity of variance between groups. Whether the experimental class and the control class have homogeneous variance or not. Homogeneity testing is performed by the F test. The criterion if F counts < F table, then H0 is accepted. For more details, see the calculation results in Table 2.

Table 2. Sample Class Normality Test

Sample Class	N	L0	Lt	Test Criteria	Information
Experimental Class	24	0,0241	0,167	L0<Lt	Normal
Control Class	24	0,0364	0,167		

In Table 2 it can be seen that both sample classes have a value of L_0 smaller than Lt, hence H_0 is accepted. It can be seen that L_0 in the experimental class = 0.0241 is smaller L_t = 0.167 and L0 in the control class = 0.0364 is smaller than L_t = 0.167. So it can be concluded that the cognitive learning competencies of the experimental class and the control class are normally distributed.

Table 3. Sample Class homogeneity test

Varian		α	Fhitung	Ftabel	Information
Experimental Class 74,2	Control Class 102,69	0,05	0,722	1,96	Homogeneous

Based on the calculations obtained: the largest learning outcome variant in the experimental class was 74.2 and the smallest learning outcome variant in the control class was 102.69. then the F test result is obtained F = largest learning outcome variant / smallest learning outcome variant = 74.2 / 102.69 = 0.722. With the real level of α = 0.05 and the numerator dk = 24-1=23 and the denominator dk = 24-1 = 23, obtained the price of Fcalculate = 0.732 and Ftable at the real level of 0.05 dK 23 : 23 is 1.96. It turns out that F counts < F tables, so both samples have homogeneous data. Thus H_0 is accepted at a real level of 5%, it can be concluded that the sample has homogeneous variance.

sHypothesis Testing From the normality and homogeneity test, it was obtained that the cognitive learning competency data of both sample classes were normally distributed and had homogeneous variance, for that hypothesis testing was carried out with a t-test. This hypothesis test is used to determine whether the learning outcomes of students who are taught with game-based learning padlet learning media are higher than the learning outcomes of students who are taught with a direct learning model. The results of the hypothesis test calculation can be seen in Table 4.

399

Table 4. Average Difference in Test Results

Class	N	Average	tcalculate	df	tTable	Information
Experiment	24	63,50	4,85	23	1,714	Accepted
Control	24	86,25				Hypothesis

In Table 4, the $_{\text{calculated t value}}$ (4.85) is greater than the table t (1.714) meaning that H_0 is rejected or there are differences in student learning outcomes learned with game-based learning padlets with a direct learning model. The difference is that the learning outcomes of students who are taught with game-based learning padlet learning media are higher than the learning outcomes of students who are taught with a direct learning model. This means that there is an influence on the use of game-based learning padlet learning media on student learning outcomes.

The application of game-based learning padlet learning media in experimental classes according to observations provides higher cognitive competence results compared to the results obtained in control classes that use direct learning. The high value obtained on cognitive competence in experimental classes is due to the application of game-based learning padlet learning media, lecturers give students the freedom to imagine, be independent, and skillful, and students are directed to think creatively in completing learning evaluations. This is in line with the opinion Nola Dwi Putri, (2019) that padlet media is an effort to optimize the function of the left brain and right brain which then the application is very helpful to understand problems quickly because they have been mapped. Thus, the application of padlet media can be an alternative in choosing learning methods that can balance the potential of students' brains. In addition, this method can also affect learning outcomes. This is by research conducted by (Firdianti, 2015), where the application of padlet learning media shows positive results or can improve student learning outcomes because in padlet game media students are no longer complicated by recording the entire learning discussion. That way, students more easily remember and understand learning so that padlet game learning media that is applied properly and correctly can improve student learning outcomes. Based on the results of observations that have been made, it was obtained that the experimental class using game-based learning padlet learning media showed that student learning process activities were more active, eager to learn. The game-based learning padlet learning media provided has student appeal because of the features available in doing questions in learning to make students more active and interested. This is reinforced by Widya Ayuningtyas & Zulfah (2021) who states that to create an active, creative, and fun learning atmosphere, educators need to be more creative and innovative in creating and using learning media

CONCLUSION

Based on the results of the study, it can be concluded that the learning outcomes of students who apply padlet learning media are higher than the learning outcomes of students who apply the direct learning model. This means that there is an influence on the use of padlet learning media on student learning outcomes. The use of game-based learning-based technology can be put to good use for learning needs.

REFERENCE

Akcay, H., Durmaz, A., Tuysuz, C., & Feyzioglu, B. (2006). Effects of computer based learning on students' attitudes and achievements towards analytical chemistry. *Online Submission*, 5(1), 5–9.

400

Falahudin, I. (2014). Utilization of media in learning. *Jurnal Lingkar Widyaiswara*, 114–115.

Harmer, J. (2007). *The Practice of English Language Teaching.* England: Pearson.

Krishnasamy, V. (2007). *The Effects of A Multimedia Constructivist Environment On Students' Achievement And Motivation In The Learning Of Chemical Formulae And Equations.* (June), 1–40.

Lancashire, R. (2000). The use of the Internet for teaching Chemistry. *Analytica Chimica Acta*, 420, 239–244. https://doi.org/10.1016/S0003-2670(00)00895-3

Munadi, Y. (2016). *Learning Media; A New Approach. J.* Jakarta: Echo Persada Press.

Nola Dwi Putri, E. (2019). Penggunaan Media Lagu Dalam Pembelajaran Tematik Di Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 1(3), 233–236. Retrieved from https://edukatif.org/index.php/edukatif/index

Qulub, T., & Renhoat, S. F. (2019). Penggunaan Media Padlet Untuk Meningkatkan Keterampilan Menulis Teks Deskripsi. *Proceedings SAMASTA Seminar Nasional Bahasa Dan Sastra Indonesia*, 1(2), 141–146. Retrieved from https://jurnal.umj.ac.id/index.php/SAMASTA/article/view/7226/4454

Rais, M., Karim, A., & Hashim, Y. (2004). The Experience of the E-Learning Implementation at the Universiti Pendidikan Sultan Idris , Malaysia. *Malaysian Online Journal of Instructional Technology*, 1(1), 50–59.

Rashid, A. A., Yunus, M. M., & Wahi, W. (2019). Using Padlet for Collaborative Writing among ESL Learners. *Creative Education*, 10(03), 610–620. https://doi.org/10.4236/ce.2019.103044

Rini Sefriani, & Sepriana, R. (2020). Pengembangan Media E-Learning Berbasis Schoology pada Pembelajaran Kurikulum Pendidikan Teknologi dan Kejuruan. *EDUKATIF: JURNAL ILMU PENDIDIKAN*, 2(1), 8–14. Retrieved from https://edukatif.org/index.php/edukatif/index

Rizki Pebriana, D. (2017). Effect of Problem Based Learning To Critical Thingking Skills. *PrimaryEdu : Journal of Primary Education*, 1(1), 109–118.

Sari, A. B. P. (2019). Efl Peer Feedback Through the Chatroom in Padlet. *LLT Journal: A Journal on Language and Language Teaching*, 22(1), 46–57. https://doi.org/10.24071/llt.v22i1.1701

Widya Ayuningtyas, K., & Zulfah, N. (2021). Analisi Peran Media Pembelajaran Interaktif Berbasis Kahoot Terhadap Motivasi Belajar Siswa Dalam Pembelajaran Daring. *Proceedings Series on Social Sciences & Humanities*, 1, 28–32. https://doi.org/10.30595/pssh.v1i.70

The Influence of