EVALUATION OF ONLINE LEARNING THROUGH LMS E-LEARNING MATHEMATICS STUDY PROGRAM PAMULANG UNIVERSITY

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ABSTRACT

This study aims to evaluate the implementation of online learning through E-Learning during the COVID-19 pandemic at the Mathematics Study Program at Pamulang University to find out the various shortcomings and problems faced by using the CIPP model approach with a focus on learning planning, learning facilities, learning processes, and learning output in online learning through LMS E-Learning. Primary data is obtained from students of the Mathematics Study Program at Pamulang University through questionnaires distributed online. The results of the evaluation research show that of the four learning components, the input component (learning facilities) is the one that has the lowest average of the others.

INTRODUCTION

When the pandemic hit Indonesia, education was the thing that felt the most impact. Learning that was initially carried out conventionally face-to-face has switched to online learning. This is done by considering efforts to prevent the spread of COVID-19 and prioritizing the safety and health of all parties carrying out learning.

The online learning system is a system in which teachers and students do not conduct face-to-face meetings, but learning is carried out online via the internet. Teachers must ensure that learning activities can be carried out properly even though students are in other locations. The solution is that teachers must be able to utilize online media to design learning media as an innovation.

Online learning is one of the government's efforts to prevent the spread of COVID-19 in Indonesia, which certainly has positive and negative impacts. Learners, educators, and stakeholders alike must respond wisely to online learning during this pandemic to ensure that learning runs smoothly to achieve learning goals.

According to [1], the advantage students feel through online learning is that it can be done at home, regardless of location, anytime, anywhere, with a comfortable environment and free time. Disadvantages of online learning are network instability, teacher voice and the synchronization of teaching materials. If it does not match, and there is no Wi-Fi or network connection, you cannot attend class and lose concentration.

Online learning is carried out by lecturers and students of the Pamulang University mathematics study program through the E-Learning Learning Program. E-learning is learning using technology services such as audio, telephone, video, satellite, or computer transmission. All learning activities carried out by lecturers, and students are through e-learning, with various features supporting the process of implementing online learning.

According to Sobron et al (2020), online learning media affects student learning outcomes in mathematics. Students claim that the advantage of online lectures lies in the flexibility of time and place of study. However, the disadvantages of online lectures are the availability of a good internet connection, sufficient internet capacity, and many lecturer assignments. Meanwhile, Sukmawati & Purbaningrum (2022), classify

learning independence in online lectures as low, namely at the stages of understanding problems, carrying out planning, and completing planning, but not being able to re-examine.

Another problem with online lectures is that students still turn in assignments late. The following reasons for late submission of student assignments: 1) students have a limited online quota; 2) internet connection is not supported; and 3) the tasks assigned are extensive. 4) Some students tend to procrastinate on assignments [4].

Research conducted by Tarigan (2021) regarding the evaluation of online learning processes concludes that self-learning that seems forced makes students feel bored quickly, and gradually, virtual learning becomes something students are reluctant to do. To find out the quality and implementation of online learning through e-learning, it is necessary to conduct a more in-depth study through evaluation. Evaluation is an activity carried out as an alternative to improving programs or activities being or has been implemented [6]. According to Widoyoko (2009), the CIPP evaluation concept offered by Stufflebeam states that the primary purpose of an evaluation is not only to prove but also to improve.

One of the models that can be used in evaluating online learning through e-learning is the CIPP evaluation model (Context, Input, Process, and Product). Evaluation using the CIPP model can be used in many fields, including education, management, or companies in the form of projects, programs, or institutions (Wijayanti et al., 2019). Evaluation with the CIPP model (Context, Input, Process, and Product) is very effective in its scope of function because this model is fundamental, comprehensive, and integrated. It is fundamental because it contains the core learning objects, namely objectives, materials, the learning process, and the evaluation itself. It is comprehensive because the evaluation targets all participants in the learning process [8].

METHOD

Primary data is used to conduct evaluation research. Primary data was obtained by distributing questionnaires online to students of the Mathematics Study Program at Pamulang University as respondents, which were carried out in December 2021. The evaluation model used is the CIPP model, where context is viewed from lesson plans, input is viewed from learning facilities, process is viewed from the learning process, and product is defined in terms of learning output.

RESULTS AND DISCUSSION

Respondents in this study were 110 students in the Mathematics Study Program at Pamulang University, and the following results were obtained:

A. Learning Planning Components

The online learning planning component that is carried out using LMS E-Learning consists of seven aspects of assessment, which can be seen in table 1 below:

Table 1. Respondents' Scores on Learning Planning

No	Assessment Aspects	Average Score	Standar Deviation
1	Course Identity	4,52	0,60
2	Available Course Competency Achievements	4,28	0,73
3	Course Learning Objectives	4,21	0,84
4	Available Course Descriptions	4,30	0,82
5	College subject schedule	4,51	0,65
6	RPS available	4,31	0,92
7	Assessment features are available.	4,25	0,71
	Average	4,34	0,65

From Table 1, it can be seen that the quality of online learning planning through LMS E-Learning can be said to be very good, with an average score of 4.34 on a scale of 5.00. An indicator that needs to be improved with an average value of 4.21 is the availability of learning objectives from the courses that will be taught to students using LMS e-learning.

B. Components of Learning Facilities

The components of online learning facilities carried out using LMS E-Learning consist of six aspects of assessment, which can be seen in table 2 below:

Table 2. Respondents' Scores on Learning Facilities

No	Assessment Aspects	Average Score	Standar Deviation
1	Online Tools	4,31	0,80
2	Quota and Network	4,02	0,89
3	Completeness of Learning Materials	4,10	0,88
4	Completeness of Learning Features	4,17	0,74
5	E-Learning Guidelines for LMS	4,37	0,70
6	Help Desk Service	4,37	0,70
	Average	4,22	0,79

From table 2, it can be seen that the quality of online learning facilities through LMS E-Learning can be said to be very good, with an average score of 4.22 on a scale of 5.00. The availability of quotas and the strength of the internet network in implementing online learning using LMS E-Learning are indicators that need to be improved, with an average value of 4.02.

C. Learning Process Components

The components of the online learning process carried out using LMS E-Learning consist of six aspects of assessment, which can be seen in Table 3 below:

Table 3. Respondents' Scores on the Learning Process

No	Assessment Aspects	Average Score	Standar Deviation
1	Learning Materials	4,53	0,65
2	Learning Assessment	4,25	0,71
3	Expertise in Using Learning Features	4,15	0,79
4	Ease of Using Learning Features	4,17	0,74
5	Liveliness	4,40	0,61
6	Task Work	4,48	0,67
	Average	**4,33**	**0,70**

From Table 3, it can be seen that the quality of the online learning process through LMS E-Learning can be said to be very good, with an average score of 4.33 on a scale of 5.00. Proficiency in using online learning media through LMS E-Learning is an indicator that needs to be improved, with an average value of 4.15.

D. Learning Output Components

The output of online learning carried out using LMS E-Learning consists of five aspects of assessment, which can be seen in table 4 below:

Table 4. Respondents Score Against Learning Output

No	Assessment Aspects	Average Score	Standar Deviation
1	Achievement of learning targets	4,53	0,65
2	Achievement of Learning Competency	4,25	0,71
3	Responses to LMS E-Learning Learning	4,15	0,79
4	Learning Tasks	4,17	0,74
5	Learning Effectiveness	4,40	0,61
	Average	**4,33**	**0,70**

Table 4 shows that the output produced in online learning via LMS E-Learning is very good, with an average value of 4.26 on a scale of 5.00. The effectiveness of learning in terms of the time spent implementing online learning using LMS E-Learning is an indicator that needs to be improved, with an average value of 4.06.

The facility with the lowest average score of the four components is 4.22, which is an important point that needs to be improved in online learning through LMS Elearning. This can be in accordance with Figure 1 below:
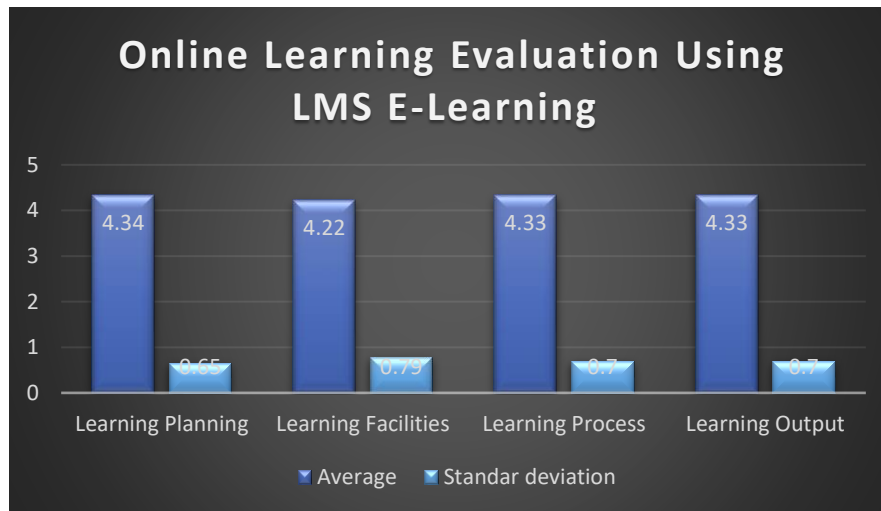
Figure 1. Average Respondents' Responses to Online Learning Components Through LMS E-Learning

The discussion presents the arguments put forward by the author with the results of the evaluation research showing that of the four components of online learning through LMS E-Learning at the Mathematics Study Program at Pamulang University, the learning facilities component is lower than the other components. Whereas quotas and the internet network are the primary areas for improvement,

In the learning output component that is better than the learning facility component, the effectiveness of learning time is the main focus that needs to be repaired and increased. In the components of the learning process that are better than the components of learning facilities and outputs, proficiency in using learning features is the main focus that needs to be improveds of the learning process that are better than the components of learning facilities and outputs, proficiency in using learning features is the main focus that needs to be improved. whereas in the learning planning component, which is better than the components of facilities, outputs, and learning processes, the learning objectives of the course need to be corrected and clarified so that students can understand the purpose of the learning to be carried out.

CONCLUSION

The conclusions of this evaluation research are as follows: (1) For the context component, which is evaluated in online learning through LMS E-Learning in the Mathematics Study Program, the indicator for subject learning objectives is still lower than other indicators, namely with an average value of 4.21. (2) For the input component, which is evaluated in online learning through LMS E-Learning in the Mathematics Study Program, the quota and internet network indicators are still lower than other indicators, namely with an average value of 4.02. (3) For the Process component, which is evaluated in online learning through LMS E-Learning in the Mathematics Study Program, indicators of proficiency in using learning features with LMS E-Learning are still lower than other indicators, with an average score of 4.15. (4) For the output component that is evaluated in online learning through LMS E-Learning in the Mathematics Study Program, the indicator of learning effectiveness is still lower than other indicators, namely with an average value of 4.06.

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