

MANAGEMENT OF E-LEARNING MEDIA TO IMPROVE QUALITY OF MATHEMATICS LEARNING AT PRIVATE HIGHER EDUCATION

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Abstract

Mathematics education courses are still perceived by some students as difficult and unpleasant subjects. Because of that, many students had surrendered before the war. Therefore, the general purpose of this study is to describe and analyze the management of e-learning media in order to improve the quality of mathematics learning in private universities. In addition, this study specifically aims to describe and analyze: 1) e-learning media planning; 2) Organizing e-learning media; 3) Implementation of e-learning media; 4) Evaluation of e-learning media; 5) The problem of e-learning media; 6) Solutions for e-learning media problems; 7) The impact of e-learning media. This research uses a qualitative approach with the type of case study. Data collection techniques in this study were carried out through interviews, observations, and document studies. Management theory uses George R. Terry (1992), Edgar Dale's media theory (1969), Edward Sallis' quality theory (2006), and Cronbach's learning theory (Suprijono, 2009). The results of the study are as follows: 1) The planning of e-learning media has been running according to the planning principles although it is not yet complete; 2) The organization of e-learning media has been effective in accordance with the main tasks and functions of work units in the university environment, although it is not yet fully flexible; 3) The implementation of e-learning media, in principle, the two study programs have carried out according to the plan, although there are still some implementations that have not been in accordance with the predetermined plan; 4) Evaluation of e-learning media, in principle, both study programs evaluate programs based on Dikti standards by conducting a cycle (PPEPP); 5) The problem of e-learning media, in principle, the two study programs are not that serious, only technical problems such as the unstable internet network in certain areas; 6) The solution to the problem of e-learning media, in principle, both study programs have the same policy to solve the same problem related to the use of e-learning media, namely on human resources, infrastructure and e-learning facilities; 7) The impact of using e-learning media is that in principle the two study programs have similarities in increasing student learning outcomes and students giving a positive appreciation for learning mathematics. Management of e-learning media to improve the quality of mathematics learning at private universities has been oriented to the principles of learning to use e-learning media.

Keywords: *Management, E-learning, Quality of Learning.*

INTRODUCTION

E-Learning is an information technology that is implemented in the world of education, especially in learning resources. Therefore, e-Learning is something relatively new in Indonesia. Now e-Learning is an alternative learning medium because of the advantages it has. At present, the concept of e-learning has been widely accepted by the world community, as evidenced by the widespread implementation of e-learning, especially in educational institutions (schools, training/training and universities). Several tertiary institutions organize electronic learning activities as a supplement (additional) to the subject matter that is presented regularly in class. The tendency to develop e-learning

as an alternative to learning in various educational institutions is increasing in line with developments in the field of communication and information technology.

E-learning always has the same quality every time it is accessed and does not depend on the teacher's mood. E-learning is designed so that students can better understand by using simulations and animations. In addition, according to Karwati (2014: 53), E-learning has a positive and significant effect on the learning quality of FKIP UNINUS Bandung students. This influence is in a strong category. The more intensively e-learning is used, the quality of learning for FKIP UNINUS students will also increase.

Pasundan University and Mathla'ul Anwar University, following the trend of this technological development. This university has implemented a learning system called e-learning. Learning with e-learning media was chosen because of the simplicity of the structure and the ease of access to the system by all users. This system is combined with a synchronous and asynchronous learning system, making it easier for students to access lecture materials and take care of administration. The success of this system is highly dependent on system users, namely students and lecturers.

However, in practice, the use of this system has not been optimal as it should be, due to various factors including the need for adjustments for students and teaching lecturers to use this program and because online lectures are very limited by time and space. So that the lecturer cannot directly monitor students one by one in one face-to-face lecture. This is what requires students to be more independent in understanding the material and completing assignments given by the lecturer. In addition, many students complain and regret this. The reason is that they encounter many obstacles when using this online lecture system.

Digital media management (e-learning) is an alternative that can be taken to improve the quality of education because it presents a digital-based education system both in school information services and in the learning process. Digital media are meant for all kinds of information technology that can access information and learning. Whether it's laptops, LCDs, projectors, HP Android applications, internet sites and online media websites, this is an important part that educators must know: leaders, lecturers, administrative staff, and the campus community.

LITERATURE REVIEW

This study uses the management theory of George R. Terry (1992), which states that management is defined as a distinctive process consisting of planning, organizing, implementing and controlling which is carried out to determine and achieve goals by utilizing human resources and other resources. There are many variations of the definition of management proposed by the figures. the difference in the variation of the definition is more due to the point of view and scientific background possessed by the characters. However, the various definitions put forward do not depart from the substance of management in general, namely efforts to manage all resources to achieve goals.

One of the most widely referenced images as a theoretical basis for using media in the learning process is Dale's Cone of Experience. Edgar Dale and James Finn are figures

who contributed to the development of learning technology. Edgar Dale (1969) argued that the more learning experiences students get the more concrete (real) students learn teaching materials. Conversely, if students are increasingly abstract in studying teaching materials, the less learning experience they will get.

According to Edward Sallis (2006: 7) operationally, quality is determined by two factors, namely the fulfillment of predetermined specifications and the fulfillment of the expected specifications according to the demands and needs of customers. The first quality is called quality in fact (actual quality) and the second is called quality in perception (perception quality). In quality in fact, producers show that quality has a system, which is commonly called a quality assurance system, which enables the wheels of production to produce products that consistently conform to certain standards or specifications.

METHOD

This study uses a qualitative approach, because the problems relate to humans, which fundamentally depend on observation. The research method used by researchers in this study is the case study method. In this study, data was obtained from various sources by interview, observation, and documentation methods. Data analysis uses theory. According to Sugiyono (2009: 335-336), data analysis is a process of searching and systematically compiling data obtained from interviews, observations, and documentation, by organizing data into categories, describing it into units, synthesizing, organizing making patterns, choosing which ones are important and which will be studied, and making conclusions so that they are easily understood by oneself and others. Data analysis in qualitative research was carried out before entering the field, while in the field and after finishing in the field.

RESULTS AND DISCUSSION

1. Planning for e-learning media in mathematics learning at private universities

Based on the research findings, it can be interpreted that the two Study Programs at Higher Education have prepared a plan for using e-learning media to improve the quality of learning in accordance with planning theory. The two Study Programs have clearly set goals for using e-learning media to improve the quality of learning where goals are the key to deciding or planning what to do if work has to be done, and accompanied by a network of procedures, curricula, resources and infrastructure. All planning steps are in accordance with the planning steps of George R Terry's Management Theory with certain adjustments. Planning is essentially preparing what steps or actions will be taken to achieve the expected goals. If one does it effectively, one can reduce the time and effort required. In planning, e-learning, the media includes; RPS, which includes course identity, CPL, CPMK, achievement indicators, learning objectives, teaching materials, time allocation, learning methods, learning activities, assessment of learning outcomes, and learning resources, in accordance with G. R. Terry's management theory. Planning for the use of e-learning media in the curriculum is outlined in the RPS in order to realize the vision, mission and goals of the Study Program, where the goals of the Study Program are educational institutions that utilize and maintain supporting facilities for digital-based

learning processes. This is in line with Siswanto (2007:3) planning, namely the process and series of activities to set goals in advance at a certain period/period and the stages/steps that must be taken to achieve these goals. In line with Hamzah (2009:2) planning is a way to make activities run well, accompanied by various anticipatory steps to minimize the gaps that occur, so that these activities can achieve the goals set. The basics of the need for a learning planning process in order to achieve learning improvement.

2. Organizing e-learning media in learning mathematics at private universities

Based on the research findings, it can be interpreted that the two Study Programs at Higher Education have organized e-learning media to improve the quality of learning effectively. The two Study Programs have been organized from internal to external coordination by establishing procedures and forming e-learning media program teams so that they can work optimally in the learning process in accordance with the vision, mission, goals and objectives of the study program in an effort to continuously improve and develop the quality of learning. Organizing or organizing in e-learning media is carried out by forming an e-learning team, internal coordination with both lecturers and students, preparing e-learning platforms, zoom meetings, and time management so that all stages can go according to the plans that have been implemented. This is in line with George R. Terry (1993). Organizing is determining, grouping, and compiling the various activities required to achieve goals, placing people (employees) for these activities, providing suitable physical factors for work purposes and the appointment of authorities. Relations, which are delegated to each person in relation to the implementation of each expected activity.

3. Implementation of e-learning media in learning mathematics at private universities

Based on the research findings, it can be interpreted that, in principle, the two study programs have implemented e-learning, which has received full support from the leadership. In addition, the two study programs have also implemented programs and procedures for using e-learning media in the learning process in accordance with the curriculum that has been designed based on the IQF curriculum. The results of the findings and research interpretations of the two study programs show that the implementation of e-learning-based learning is learning that utilizes information technology devices in the form of computers/laptops and cellphones connected to the internet network. Moodle is an open source Learning Management System (LMS) used in the Unpassed Mathematics Education Study Program. This is in line with Abdul Barir Hakim (2016: 2) defining: "E-learning is teaching and learning that is supported and developed through technology and digital media, and is also a form of the concept of distance learning or distance learning." Students become very flexible in choosing the time and place of study because they do not have to come to a certain place at a certain time. Thus, the responsibility for improving the quality of education in schools is borne by lecturers. We believe that currently there are many lecturers who have implemented the theory of constructivism in classroom learning, but the volume is still limited, because, in reality, we still find many lecturers who, in teaching, still seem to be only carrying out their obligations. He does not need a strategy, a method of teaching. What is important for him is how a learning event can take place. This is an

erroneous and unlawful opinion to follow, if you don't want to be said to be lazy and unprofessional.

4. Evaluation of e-learning media in mathematics learning at private universities

Based on the results of the research findings, it can be interpreted that, in principle, the two study programs carry out evaluations of improving the quality of e-learning-based mathematics learning by using a mechanism to control the achievement of educational standards through monitoring and evaluation every semester. The policy for implementing Monitoring and Evaluation Learning outcomes (competencies) and lectures serve as guidelines to be implemented every semester by all study programs and the results are evaluated in coordination meetings at both the faculty and university levels. It includes guardianship, scheduling, assignment of lecturers, preparation of teaching materials, lectures, examinations, and grade management. When students are the raw input, they are then processed with learning, with instrumental input in the form of policies, curriculum, infrastructure, and lecturers as well as environmental input in the form of support from the government, parents, stakeholders and the community. The results above are in line with George R. Terry (1993). Supervision can be formulated as a process of determining what must be achieved, namely standards, what is being done, namely implementation, assessing implementation, and, if necessary, making improvements, so that implementation is according to plan, namely in harmony with standards (size).

5. The problem of e-learning media in learning mathematics at private universities

Based on the research findings, it can be interpreted that, in principle, the two study programs have the same problems related to the use of e-learning media, namely human resources, infrastructure and e-learning facilities. However, the problems in the two study programs are not that serious. There are only a few lecturers who are not enthusiastic about trying new IT-based things. Apart from that, there are some who are a priori and feel they cannot use e-learning, even though they have not tried using e-learning. Apart from that, other problems that arise when conducting e-learning-based learning quality improvement programs are that the comfort zone is often difficult to leave, where we feel enough with ordinary learning. Other problems also arise from infrastructure, which can be in the form of computers, laptops, tablets, smart phones, computer networks, the internet from both lecturers and students, and the need for a large server at PT.

6. Solution to the problem of e-learning media in learning mathematics at private universities

Based on the research findings, it can be interpreted that, in principle, the two study programs have the same policy to solve the same problems related to the use of e-learning media, namely human resources, infrastructure and e-learning facilities. E-learning training for lecturers to help lecturers to know and understand more deeply the features that exist in e-learning. In addition, the leadership gives circulars to each lecturer to record the implementation of synchronous learning and then the recording results are saved or linked to e-learning or the YouTube channel so that students who are constrained by the network can watch it at any time when the network connection is good. In order for the Online (Online) learning process to run well, it is necessary to have good cooperation between the

government and the community as well as parties in dealing with the problems faced by students in carrying out the teaching and learning process. One of the solutions provided is to provide assistance and provide adequate infrastructure, such as providing internet quota assistance and procuring towers or wifi in each region, or cash assistance for students and students.

7. The impact of e-learning media in learning mathematics at private universities

Based on the research findings at the two universities, there are similarities in the impact of improving the quality of e-learning-based mathematics learning, namely. Similarly, one of the positive impacts of online learning is that it can train students' patience in taking part in online learning. The patience referred to here is being patient when learning online; various obstacles or obstacles were faced either from inadequate networks, lack of understanding of the material presented by lecturers and so on. Apart from that, one of the positive impacts felt by these students was that these students were more skilled in using technology. Because at any time they are faced with technology, so that students practice mastery of technology. Online learning allows students to keep up with the times.

CLOSING

Conclusion

The management of the use of e-learning media to improve the quality of student learning at private tertiary institutions has been oriented towards the principles of learning to use e-learning media, even though it has not been fully supported by adequate resources. Planning for the use of e-learning media at the two tertiary institutions has been running according to the planning principles even though it is not yet complete. Organizing the use of e-learning media (moodle) to improve the quality of learning at both tertiary institutions has been effective in accordance with the main tasks and functions of work units within the tertiary institution, although not yet fully flexible. The implementation of the use of e-learning media (moodle) to improve the quality of learning in both tertiary institutions. In principle, the two study programs have been carried out according to the plan where the implementation of the use of e-learning media is in accordance with the curriculum that has been designed based on the IQF curriculum, although there are still some implementations that are not in accordance with a predetermined plan. Evaluation of e-learning media (moodle) to improve the quality of learning at both tertiary institutions. In principle, the two study programs evaluate programs based on Dikti standards.

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