The Implementation of The E-Learning Concept In Education

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Abstract. Application of web technology (Web-Based Education) can help learning process for an educational process can be called e-learning (electronic learning). The technology offered is speed and unlimited place and time to access information. Teaching and learning activities can be done easily by students anytime and anywhere. The boundaries of space, distance and time are no longer complex problems to solve. The way to learn through the web is that there is access to information sources via the internet. The development of e-learning is three possibilities in the development of an internet-based learning system, namely the web course, web centric course, and a web enhanced course. Learning or e-learning is also inseparable from various advantages and disadvantages. However behind it all, learning through e-learning is very supportive in the current learning process.

1. Introduction

Application of web technology (Web-Based Education) can help in the world of learning for an educational process can be called e-learning (electronic learning) [1]. The technology offered is speed and unlimited place and time to access information. Teaching and learning activities can be done easily by students anytime and anywhere. The boundaries of space, distance and time are no longer complex problems to solve. The way to learn through the web is that there is access to information sources via the internet. Furthermore, there is information about the location of the source of information you want to get [2].

As long as the computer between one another is connected to each other in the internet network, it can be accessed from anywhere. This is one of the advantages of learning through the internet [3].

Realizing web-based learning is not only putting learning material on the web and then accessing it through a web computer, but it is also used not only as an alternative media for paper to
store various documentation or information. Web-based learning is said to be unique but serious, because the serious word is used to express that designing a learning to implement Web-based learning is not as easy as imagined [4]. In addition to the internet infrastructure that must support, web-based learning also requires an instructional model that can determine the effectiveness of the learning process. Whatever instructional model is designed, the most important thing is interactivity between students, teachers, supporting parties and learning material must get special attention [5]. Monitoring in web-based learning is more difficult than a teacher who teaches in the classroom because only providing online learning materials is not enough because an instructional design is needed as a learning model that can invite students or students to engage in learning activities that have been designed. Realizing web-based learning is not just putting learning material on the web and then being accessed via web computers, but it is also used not only as an alternative media substitute paper for storing various documentation or information. Web-based learning is said to be unique but serious, because the serious word is used to express that designing a learning to implement Web-based learning is not as easy as imagined. In addition to the internet infrastructure that must support, web-based learning also requires an instructional model that can determine the effectiveness of the learning process [5] [6]. Whatever instructional model is designed, the most important thing is interactivity between students, teachers, supporting parties and learning material must get special attention. Monitoring in web-based learning is more difficult than a teacher who teaches in the classroom because only providing online learning materials is not enough because an instructional design is needed as a learning model that can invite students or students to engage in learning activities that have been designed. Also keep in mind that how this web technology can help the learning process.

2. Discussion

2.1 Implementation of Web-Based Learning

The learning model is designed by integrating web-based learning in conventional face-to-face learning programs. The conventional face-to-face learning process is done using the Student Centered Learning (SCL) approach through group work. Designing and implementing web-based learning, the steps are as follows, namely:

a. An educational program in improving the quality of learning in the school environment and in the campus with web-based. This program can be ideally carried out for 5-10 months and can be divided into 5 stages, stages 1, 3 and 5 can be done remotely and can choose web media as a communication tool. While stages 2 and 4 can be done conventionally face to face.

b. Establishing a subject and teaching material that will be taught to students. Face-to-face learning can be done regularly every week, namely in the first seven weeks. After that, face to face meetings are held every 2 or 3 weeks [7].

These two educational programs can be delivered to students through various types of group learning activities. Learning and doing assignments collaboratively in groups is very dominant in both programs.

2.2 Face and Virtual Interaction

Interaction with one another to be able to communicate directly face to face is still needed. There are three reasons why face-to-face forums are still needed in this learning activity. The reasons are as follows:

a. The first reason is the need for a forum to explain the purpose and mechanism of learning that will be shared directly with all students. What determines the success of a learning process is also determined by students' understanding of what, why, and how the learning process and work on the task will take place. Students need to know what outputs and competencies will be obtained after participating in a learning activity. Based on experience, explaining the purpose and mechanism of learning is a very vital first step. The smoothness of the next learning process is very much determined at this stage.
b. The need to provide understanding as well as learning experience by working on assignments in groups and collaboratively on each student. Because the designed learning model demands group work, students need to have competence and communication. The participation and activity of students involved in various activities needs to be introduced at the same time experienced by each student. For this reason, getting to know one another must be done directly in order to build a solid group, as long as the work is virtual, then.

c. The need to provide adequate training in using a computer that will be used as a web-based communication media for each student. By including various activities using computers and supporting communication system facilities, each student must have the skills to operate it. The lack of understanding in operating the equipment greatly impacts on the possibility of their low participation in various subsequent virtual discussion activities [7].

2.3 Differences in Traditional Learning with E-Learning

The difference between traditional learning and e-learning is a teacher in traditional class is considered as a versatile person and assigned to channel knowledge to his students, whereas, e-learning is primarily focused on students where students are required to be independent, active and responsible in learning. Students are required to look for material with their own efforts and initiatives. According to Cisco (2001) e-learning based learning is as follows:

a. e-learning is a delivery of learning in the form of information, communication, education and training on-line.

b. e-learning is a set of tools that can enrich the value of learning in a conventional manner so that it can answer the challenges in the age of globalization.

c. Student capacity varies greatly depending on the form of content and how it is delivered [7].

2.4 Development of E-Learning Models

Haughey's opinion Rusman about the development of e-learning is as follows:

a. Web course is the use of the internet for educational purposes, namely students and teachers are not needed to have face-to-face meetings, can be considered as distance learning.

b. The web centric course is part of the material delivered via the internet, and partly through face to face. The teacher provides instructions and direction to students regarding learning support sites so that learning between students and teachers supports each other.

c. Web enhanced course is where the role of the teacher is very important in learning because it is required to master internet technology, guide students and present material in learning so that it can attract students' interest and the learning process can run well [7].

![Model Development Diagram]

Figure 1. Model Development
2.5 E-Learning Strengths and Weaknesses

Instructions on the benefits of using e-learning based internet, especially in open education and distance learning, include:

a. The availability of e-learning facilities between educators and students can communicate easily and flexibly because it can be done by students anywhere and anytime, without being limited by distance and time.

b. Learners can study or review lesson material as well as discussions between students and students at anytime and anywhere [7].

The shortcomings of e-learning based learning Bullen, Beam, include:

a. Lack of interaction between educators and students or even among fellow students themselves.

b. The learning process tends towards training rather than education.

c. Students who are less active and lack desire and high learning motivation tend to fail.

d. Not all internet facilities are available.

e. Lack of staff who know and have the skills to operate the internet [7].

3. Conclusion

Application of web technology (Web-Based Education) can help learning process for an educational process can be called e-learning (electronic learning). The technology offered is speed and unlimited place and time to access information. Teaching and learning activities can be done easily by students anytime and anywhere. The boundaries of space, distance and time are no longer complex problems to solve. The way to learn through the web is that there is access to information sources via the internet. Furthermore, there is information about the location of the source of information that you want to get.

The development of e-learning makes three possibilities in the development of an internet-based learning system, namely the web course, web centric course, and a web enhanced course. Learning or e-learning is also inseparable from various advantages and disadvantages. But behind it all, learning through e-learning is very supportive in the current learning process.

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