

## Utilization of E-Learning on Instruction in The Junior High School

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**Abstract.** e-learning is a type of teaching and learning that allows the delivery of teaching materials to students using internet, intranet or other computer network media. This research was aimed at describing 1) the use of e-learning for junior high school students in Singaraja City, and 2) the factors that support and inhibit learning with e-learning in junior high schools in Singaraja City. This research is descriptive research. Determination of research samples using stratified random sampling technique. School samples were used, namely: SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab. Undiksha. The results showed that: 1) that the level of application of learning with e-learning is very high, and 2) the factors that support learning with e-learning are (a) factors of facilities and infrastructures which include the existence of computer laboratories, multimedia room, ICT room, audio-visual media, as well as other facilities such as TVs, LCD projectors, and (b) human resource factors or teachers who have the enthusiasm to continue to improve competence while the factors that become obstacles in learning with e-learning are (a) busy teacher, (b) short time, and (c) lack of experts in the field of ICT.

**Keywords:** e-learning, media, instruction, junior high school

### 1 Introduction

A new paradigm that emerges is related to the learning process that no longer describes face-to-face meetings in the classroom even though the concept of social interaction in it is maintained. Although learning has long taken place before the introduction of the internet, technology development has enabled Information and Communication Technology (ICT) to be a tool in learning [1]. The presence of internet technology makes it easy for people to interact without being bound by space and time anymore. Technology shows that it can be applied to learning and makes learning more attractive to students [2]. The development of ICT has provided various kinds of convenience to humans. Surjono [3] states that information and communication technology that is developing now has an influence on various aspects of life, including the education sector. The development of information and communication technology, especially internet technology, has recently been widely used in learning activities in developed countries. One example of ICT-based learning innovation is electronic learning or commonly referred to as e-learning. E-learning is a type of teaching and learning that allows the delivery of teaching materials to students using internet, intranet or other computer network media. Teaching and learning activities using the e-learning system are very beneficial for students or educators to facilitate teaching and learning activities.

LearnFrame.Com in Glossary of e-learning Terms [4] states that: e-learning is an education system that uses electronic applications to support teaching and learning with Internet media, computer networks, and standalone computers. To find out the use of e-learning by the teacher as a learning medium, it is necessary to do a study in depth. E-learning has become a trend in recent years. In addition to providing more resources to facilitate learning than traditional classes, e-learning also overcomes the limitations of time and traditional teaching space [5].

E-learning is short for electronic learning [6]. One common definition of e-learning is given by Gilbert & Jones [7], namely: sending learning materials through an electronic media such as the Internet, intranet / extranet, satellite broadcast, audio / video tape, interactive TV, CD-ROM, and computer -based training (CBT). A similar definition is also proposed by the Australian National Training Authority which includes applications and processes that use various electronic media such as the internet, audio / video tape, interactive TV and CD-ROM to deliver learning materials more flexibly.

The benefits of electronic learning according to Bates [8] consist of 4 things, namely: 1) increasing the level of interaction between students and teachers or enhancing interactivity, 2) enabling learning interactions from where and at any time (time and place flexibility) .3) reaching out to students in a wide range (potential to reach a global audience), 4) facilitating the improvement and retention of learning materials (easy updating of content as well as archivable capabilities).

Through e-learning, the learning process can take place anywhere. Teachers and students, teachers and students, tutors and tutees (tutorial participants) no longer need to meet face to face in the lecture hall. Thus, nowadays, it is very possible to develop the concept of education through advanced technology and produce graduates who are creative and productive and not only oriented to money. Higher education, therefore, must change the picture of society from institutions that are considered exclusive to become populist institutions that serve the wider community.

## **2 Methodology**

The type of research used is descriptive research. Descriptive research is research that is designed to obtain information about the status of a symptom when the study is conducted and in descriptive research there is no treatment given or controlled and there is no hypothesis testing [9]. The population of this study was junior high school students in the city of Singaraja. The research sample was determined by stratified random sampling technique. School samples are set, namely: SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha Singaraja.

The instruments used in this study were questionnaire instruments and interview guidelines. The questionnaire instruments used to measure: 1) instruments to measure the use of learning with e-learning and 2) instruments to measure the factors that support and inhibit learning with e-learning. Interviews were conducted with principals, teachers and students.

Interviews were conducted to complete the data obtained through giving questionnaires to teachers and students.

To analyze research data used descriptive analysis techniques. The research data described are (1) utilization of learning with e-learning and (2) supporting factors and obstacles to learning with e-learning.

### **3 Results and Discussion**

#### **3.1 Supporting Factors of Learning with E-Learning**

Learning with e-learning in SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha Singaraja is inseparable from the factors that support the implementation of this learning. The factors that support learning with e-learning in Singaraja Middle School 1, Singaraja Middle School 4, and Lab Middle School. Undiksha. As a supporting tool to familiarize students with learning using technology, SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha Singaraja already has a computer room. The computer room is managed by teachers who teach ICT subjects. The facilities available in the computer room are sufficient. All available facilities can support teaching and learning activities, especially for learning with e-learning. SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha Singaraja has computer and internet space. This space has a special manager for ICT-based learning. The existence of the internet in these schools is good for supporting e-learning. SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha has collaborated with related parties to hold internet programs in schools that are active for 24 hours. This program is open to all students and teachers who want to use it. Even this school already has a website, so anyone in the whole world can see the existence, and condition of SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha.

The quality of teachers in SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha continues to increase from year to year. This happens because of the enthusiasm and desire of the teachers to continue to develop themselves both their insights, skills, and abilities. Even though they are not experts in the field of ICT, but with that enthusiasm they can follow the development of science and technology. In the learning process in the classroom, teachers are not only guided by textbooks, but are also added from relevant sources such as by looking for additional material on the internet. In addition, the teacher also advises students to look for additional material on the internet. So that learning is not boring, learning media are used to help or clarify the material presented.

Based on the results of interviews and observations with several teachers, most of the teachers already have laptops / notebooks that are used to help complete their tasks. They also stated that to prepare and implement learning with e-learning in the classroom, the teacher has a computer, integrates ICT with the learning process, looks for information related to science and technology, prepares material by searching for additional material on the internet or relevant sources, making media such as PowerPoint or multimedia. Furthermore they

suggested that training for learning with e-learning in schools should be followed by all teachers, bring in experts, to continue to increase their ability and skills, especially in the field of information and communication technology (ICT).

### **3.2 Inhibiting Factors of Learning with E-Learning**

The school is preoccupied with academic and non-academic activities (extracurricular). Such as science olympiad coaching activities, school visits, and other activities. This activity does not only involve one party, but all school members are involved in the activity, including the teachers. Because of the busyness of the teacher in the activity, so they lacked preparation and study material.

The teachers sometimes often feel that the time available is not long when compared to the subject matter that must be delivered. Sometimes the material that must be given to students has not been completed but is nearing the end of the semester. So they have to "speed up" in delivering the material so that all material can be delivered and explained to students. This is due to the large amount of time-consuming school activities. This situation makes learning with e-learning impossible, because the teacher must concentrate on being able to finish the material on time so that learning with e-learning is ruled out.

## **4 Conclusion**

Based on the result, some conclusions can be made as follows 1) the level of application of learning with e-learning in Singaraja Middle School 1, Middle School 4, and Middle School Lab. Undiksha is very high, 2) factors that support learning with e-learning in SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha are (a) factors of facilities and infrastructures which include the existence of computer laboratories, multimedia rooms, ICT spaces, audio visual media, and other facilities such as TVs, LCD projectors, and (b) human resource factors or teachers who have the spirit to continue to improve competence. Factors that become obstacles in learning with e-learning in SMP Negeri 1 Singaraja, SMP Negeri 4 Singaraja, and SMP Lab Undiksha is (a) busyness of teachers, (b) short time, and (c) lack of experts in the field of ICT.

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