Integrating Technology And Media In Learning Process

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Integrating Technology And Media In Learning Process

I Ketut Sudarsana1*, Indrya Mulyaningsih2, Nunung Kurniasih3, Haimah4, Yunita Oktavia Wulandari5, Herdi Ramon6, Erwinsyah Satria7, Kundharu Saddhono8, Fauziah Nasution9, Dahlan Abdullah10

1Institut Agama Islam Negeri Syekh Nurjati Cirebon, Indonesia
2Faculty of Communication Sciences, Library and Information Science Program, Universitas Padjadjaran, Bandung, Indonesia
3Universitas Prof. DR. Hazairin, SH, Bengkulu, Indonesia
4Universitas Wisnuwardhana Malang
5Institut Teknologi Medan, Indonesia
6Elementary School Teacher Education Program, Faculty of Teacher Training and Education, Universitas Bung Hatta, Padang, Indonesia
7Universitas Sebelas Maret, Surakarta, Indonesia
8Faculty of Teacher Training and Education, Universitas Graha Nusantara Padangsidimpuan, Indonesia
9Universitas Malikussaleh, Lhokseumawe, Aceh, Indonesia
10*iketutsudarsana@ihdn.ac.id

Abstract. When identifying the learning strategies to be used, the teacher must choose two types of teacher-centered strategies or student-centered strategies. The selection of this strategy is closely related to the integration of technology and media in a learning process. Specifically this integration becomes the presentation of a concept by displaying a video or reading a story, or showing how to conjure up a verb. The student-centered strategy is an activity that involves students in active learning, while the teacher's position is more on the facilitator who will ensure that the learning objectives will be achieved. Integrating technology and media in a learning process will provide convenience and benefits not only to teachers but also students. Both teachers and students will be facilitated in learning that involves reading, writing, listening and listening to a material. Improving the quality of learning outcomes resulting from integrating technology and media will provide color for the development of Indonesia's human resources in the future.

1. Introduction

Firmin says that a progress will be accompanied by changes. As time advances, there are many changes in all aspects of society. Technology is a rapidly developing aspect that follows the era. Technology itself has an important role in many ways and in all areas of life [1]. Everything that has not been touched by technology is said to not keep up with the current developments [2]. Education, social, agriculture, economy, culture if technology is formed, the quality will be higher and the products produced will be of higher quality. Technology is also used in implementing education.

Educational technology will help all aspects of education in an effort to improve service quality and the quality of the media produced [3]. The results of the application of technology in the
realm of education are the quality of knowledge and skills of good students and competitiveness. The development of the use of information and communication technology has led to five shifts in the learning process, namely: (1) from training to appearance, (2) from classrooms to where and at any time, (3) from paper to "on line" or channels, (4) physical facilities to network facilities, (5) from cycle time to real time [4].

Rosenberg further stated that communication as an educational medium was carried out using communication media such as telephone, computer, internet, e-mail, and so on [4]. Interaction between teacher and students is not only done through face-to-face relationships but also carried out using these media. Technological advances will also have an impact on the diversity of media used by educators. Technology will help teachers in making media.

The media will be more interesting and varied if the teacher is able to utilize existing technology. But teachers are less able to master the available technology. The tendency of teachers who are elderly, do not understand how the roles, functions and benefits of technology and media, but still maintain the conventional style without slipping elements of technological progress in it.

2. Discussion

In general, the understanding of technology epistemology comes from Greek, namely techne and logos. Thechne can literally be interpreted as a way, knowledge, skill and skill. Logos itself means knowledge. So technology can be interpreted as a science to use expertise. Technology can also mean a systematic application of techniques and methods [5]. According to the Indonesian Wikipedia, the definition of technology is the development and application of tools, machines, materials, and processes to help people solve their problems.

Today's technology is widely used in the education process, both informal education, formal education and non-formal education, where the aim is to turn on the creativity of students and teachers or teaching staff. The technology used in Education itself includes every means or tool that can be used in the presentation of information to be delivered in the learning process or in practice. In general, the community recognizes educational technology as a tool in the education process.

On the other hand, educational technology is the study of design, development, utilization, management, assessment, processes, resources and systems carried out in terms of education or the learning process. Educational technology is to support the smooth running of an education system. The more modern and sophisticated technology used, the more assisted education is, both in the learning process and the education system itself [6].

Furthermore, if the educational technology is translated into the concept of a tool or facility, then the media of education is one type of attracting interest and concentration of students, so that a learning activity occurs. Learning media combining concrete experience helps students to combine previous experiences so it is important to learn abstract concepts that are difficult to analyze and record in the memory of students. According to Sharon and James Russell, there are six basic categories of media used in learning, namely media in the form of text, media in the form of audio, media in the form of visuals, media in the form of videos, creative media or objects and media in the form of technicians or humans.

Technology and media have an important role in the learning process. While the learning process is teacher-centered, technology and media play a role in supporting the presentation of learning. On the other hand, when the learning process is centered on students, students will be as users of the media and users of technology and media to present the results of their thoughts, research results and so on. But in general, the important role of technology and media occurs when teacher-centered learning.

One of the roles of technology and media is to serve changes in the learning environment [7]. Technology will help in presenting learning media. Broadly speaking, the role of technology and media in learning include:

a. As an Additional Role. Technology and learning media in the learning process both at school and at home have a strategic role, one of which is acting as an addition. The additional role in
question is to be a teaching tool besides the lecture method conducted by the teacher. Technology and media do not have to be in the learning process at any time, but the students are very much awaited. Technology such as the internet is not absolutely used as a learning resource, but only as an additional reference to material outside the media and books provided by the teacher. As with media, media plays an additional role if the teacher needs a tool to transfer material to students.

b. As a complement. Technology and media are called acting as complementary in terms of technology as a complement that supports the use of media in the learning process. The media is said to be complementary in terms of completing the material delivered by teachers in the class. Technology such as the internet can play a role in searching for additional material to complement the material delivered by the teacher, as well as the media will complement the material he thinks is lacking in the book.

c. As a Substitute. Technology and media are said to play a role as a substitute for meaning, technology and media as a substitute for distance learning activities. Nowadays the use of technology in facilitating human work has begun to be encouraged. In some international schools and universities implementing several learning activities that can be chosen by students, including learning conventionally or face-to-face, face-to-face learning interspersed again through the internet and some even applying distance learning using existing technology and media. In this case, technology and media act as substitutes for the existence of teachers in the classroom. Teachers and students can carry out the learning process in different places or far apart by utilizing internet or Skype technology. The substitute role can also be seen when the teacher shows the results of the interview, or the results of recording the arguments of a character or expert who is physically unable to attend class during the learning process. Technology and media act as physical substitutes for someone who is expected to be present in the learning process. If the teacher makes good use of various learning media, the teacher can share the role with the media [8]. The role of the teacher and learning media will motivate or encourage students to be interested in subjects so that the learning process takes place optimally [9].

Technology is very useful in the learning process, especially in the age of globalization and entering the current Asean Economic Community [3]. Technology can be used in various fields, among others, say education, economics, social, tourism, culture, and so forth. The benefits of technology in learning include:

a. Facilitate the creation of learning media
b. Facilitate the delivery of learning media delivered in class
c. Facilitate teachers and students in finding other learning resources other than through books and teaching materials
d. Technology makes it easy in terms of simplification of the material to be delivered, material can be simplified through charts, graphs or others, of course utilizing technology in its manufacture.

3. Conclusion

Educational technology is a way or tool to achieve national education goals. This can be achieved by using technological tools produced by the community or scientists to help grow and develop students' creativity and thought in an education system, both informal education, formal education and non-formal education. As a derivative, the media of education is one type of stimulant for students to have a learning activity.

Learning media combining concrete experience helps students to combine previous experiences so it is important to learn abstract concepts that are difficult to analyze and record in the memory of students. Technology and media have an important role in learning. When learning is teacher-centered, technology and media play a role in supporting the presentation of learning.

On the other hand, when learning is centered on students, students will be as users of the
media and users of technology and media to present the results of their thoughts, research results and so on. But in general, the important role of technology and media occurs when teacher-centered learning. One of the roles of technology and media is to serve changes in the learning environment. Technology will help in presenting learning media.

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