

Educational Technology and Its Role in Educational Transformation

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Abstract

Educational Technology has an important and strategic role in realizing the vision of the National Education System, namely producing SMART AND COMPETITIVE INDONESIAN PEOPLE. One of the functions of educational technology is to foster a responsive and anticipatory attitude. The implementation of educational technology cannot be separated from the progress of educational transformation. The use of educational technology in vocational learning makes a positive contribution to achieving learning goals for students. Therefore, educational technology efforts into the learning process and educational transformation need to be carried out. The application of learning models with an educational technology approach, religion-based learning models, and competency-based learning models are relevant to use. In addition, the implementation of teacher development with educational technology character is also very supportive.

Keywords: educational technology, transformation, technology

A. Introduction

Indonesian society today and in the future is a society with a technological culture, meaning that technological development has taken place to such an extent that it has spread widely and has influenced all areas of life, including education. Therefore, technology needs to be used more meaningfully and effectively in the field of education towards realizing the ideals of making the nation's life smarter.

The development of communication and information technology has occurred very rapidly to penetrate state boundaries and even sovereignty over territory. The flow of communication flowing from developed countries is impossible to stem. The strategy that can be used to reduce the negative impact of the flow of communication and information is to strengthen the resilience of each member of society through education that utilizes the technology in question.

Recently, education has come under sharp scrutiny both by society, the government, students, graduates and by educational people themselves. The spotlight is not evenly distributed so that it illuminates all aspects of education, but rather focuses on aspects of education, but focuses on certain aspects only. One of the focuses of the spotlight is education people, especially teachers and educational institutions. The sharp spotlight

that falls on teachers and their educational institutions may be based on the assumption that their role is very decisive in educational development.

So if they don't play a role then educational development will be hampered. This spotlight has apparently resulted in the conclusion that it has not performed its role well, and therefore has received priority for improvement and improvement. The submission of the National Education Bill should be able to broaden and sharpen the focus of the spotlight on the entire education system (components, functions, objectives as well as organization and structure) and at the same time raise awareness of all parties that our education system needs to be completely reorganized in line with the situation and conditions that have changed. and also in accordance with future guidance and expectations. Efforts to improve and improve are therefore not carried out in a patchwork manner on certain elements only.¹

B. Discussion

Education is the most important investment for every nation, especially for developing nations. In the sense of the word development can only be carried out by a nation that has been prepared to develop its country through education. Because in essence education is a reflection of a nation's civilization. A highly civilized nation is characterized by a relatively high level of education for its citizens. A high level of education depends on the quality of education which is closely related to the teaching and learning process.

Nowadays experts are trying to improve the teaching and learning process become a science or technology that can know and master the steps. This is where the role of educational technology really plays required. Actually what is meant with educational technology? At first The meaning of educational technology is the same as technology in education, namely facilities that support teaching and learning activities such as computers, overhead projectors, TVs, video tape recorders, etc. Then, in accordance with developments over time, there are several opinions about what is meant by educational technology.

(Association for Educational Communication and Technology) Definition and Terminology Commission, educational technology is a complex and integrated process involving people, procedures, ideas, equipment and organizations to analyze problems, find solutions, implement, evaluate and manage problem solving. concerns all aspects of human learning. On the other hand, there are those who believe that educational technology is the development, application and assessment of systems, techniques and tools to improve and enhance the human learning process. The priority here is the

¹ Miarso, Yusufhadi, *Sowing the Seeds of Educational Technology*, (Jakarta: Kencana, 2005)

learning process itself, as well as tools that can help the learning process. So, educational technology is about software and hardware. Software in the form of analyzing and designing learning sequences or steps based on the goals to be achieved with harmonious presentation methods and assessing success. Meanwhile, the hardware is teaching aids, audio visual aids or instructional aids such as radio, opaque film projector, overhead projector, TV , video tape recorder, computer, etc. There are also those who note that educational technology is systematic thinking about education, the application of problem solving methods in education, which can be done with modern communication tools or without these tools.²

Another opinion says that educational technology is the study and practice of helping the learning process and improving performance by creating, using and managing adequate technological processes and resources. From the opinions above, we can conclude that the definition of educational technology is a systematic and critical approach to education (the process of solving problems in educational matters). The most basic education problems can be grouped into 4 types, namely equity problems, quality problems, effectiveness and relevance problems and efficiency problems. These are the problems that educational technology must be able to solve. For the problem of equal distribution of education in Indonesia, the government with educational technology is trying to overcome it by :

Conventional

1. Build school buildings like SD Inpres
2. Using the school building for morning and afternoon school (double shift system)

Innovative

1. Pamong system, namely a mass education system. In this system education is carried out by the community, parents and teachers. Education starts from the family where those who can teach those who cannot. This system was pioneered in Solo and disseminated to several other provinces, such as Riau.
2. Small elementary school systems in remote areas. This small elementary school system is the result of the development of the civil service system.
3. Visiting Teacher System.
4. Distance learning system, namely an educational effort that aims to expand education outside the classroom. The realization is with the existence of open junior high schools, open high schools , open universities. Open here means open to everyone, that is, anytime, anyone, anywhere, regardless of age can register at an open school. However, in the implementation of education with this system, where

² Ibrahim, *Educational Technology, Meaning, Area and Application in Indonesia* (Malang, IKIP, 1985)

- students learn using modules, it is more suitable for employees who are used to being independent on a daily basis.
5. Educational television system, namely the use of television media to assist educational activities outside of school. TVRI periodically and regularly broadcasts educational programs for school children.
 6. Package A and B Pursuit System We hope that in the future educational technology can formulate a better and higher quality education system for the educational progress of the Indonesian nation.

The education system in the last decade has experienced very impressive growth. Just like basic education can be improved at junior high school level for all Indonesian children. One of the assumptions underlying this expansion effort is that this increase in learning time will improve the quality of the workforce, although the content and implementation strategy must be questioned. We all know that this very rapid growth will have the opposite effect on quality. There are still many lay people, or even experts, who believe that the main task of education is to transfer knowledge from educators to students. Moreover, many facts show that what is transferred mainly includes cognitive aspects (memorizing, repeating, mentioning, and so on). It is true that there are religious values that must be preserved, but in today's developments more and more values, especially those originating from sensory truth and scientific truth, are undergoing changes, so they should not be preserved.

The organizational structure of education today is still the same as it was a century ago, even though other sectors of life have undergone changes. Formal education is manifested in the form of school, taught and supervised by a teacher. The teacher organizes activities and assesses the results. As a result, various sources for learning that exist in society cannot be utilized. Teachers are considered the only educational staff who have the authority to teach. Indeed, the current reality shows that the teacher is the sole authority in the teaching and learning process. Even today, teachers are burdened with so many tasks that they are unable to carry them out effectively. The teacher's main task should be to "supervise, emulate and inspire enthusiasm".

Technology has developed rapidly, and our culture has also been influenced by it, there have been social changes with the development of technology. Most people still view technology as a product with references to objects that can make life more comfortable. We cannot yet utilize technology in such a way that social discoveries arise, even though the technology has already produced social change. In this way, technology cannot be held responsible if a negative consequence occurs. Prevention of negative consequences can be done using an isomorphic approach, namely where two different complex structures are combined in such a way as to complement and complement each other. And there are many more symptoms that can be taken into consideration as to why transformation is needed.

a. Educational Trends

The development of society will have an influence on the development of values, principles and procedures in education. In the past, for example, the value that was considered good was "obeying" without questioning the reasons and goals; and repetition (drills) are considered teaching procedures that are best applied to all kinds of teaching fields. Various reform efforts have indeed been carried out, but now what is really needed is educational transformation. Where the essence, institutions and functions of education are developed with a new system of values, principles and procedures as a whole. The following new trends can be used as a basis for considering the need for educational transformation efforts.

b. Study the Structure of Fields of Study

Material or information in the field of study continues to develop in line with the development of science itself. Because information continues to develop and human limitations, a more meaningful way is if we are able to study general ideas that are used as a basis for compiling, interpreting and predicting phenomena in that field of study, or in other words studying the structure of the field of study. Studying this structure can be done through understanding concepts, principles, procedures and theoretical models. This method will be more economical and practical. It is true that there is a certain amount of basic information and facts that must be mastered, but by mastering this structure the facts and information can then be stored in various types of tools that can be retrieved at any time necessary.

c. Educational Technology Concept

Educational technology as a relatively new concept contains a number of ideas and references. The idea to be realized is that every individual can develop as much as possible by utilizing technology in such a way that it is in harmony with the development of society and the environment. Meanwhile, the concept reference is the result of a synthesis of observed symptoms and existing trends.³

C. Conclusion

Science continues to develop and the amount and quality of information grows exponentially. It is impossible for someone to control the increase in information by hoarding data or facts in their brain. Technology has developed rapidly, and our culture has also been influenced by it, there have been social changes with the development of technology.

³ Prawiradilaga, Dewi and Siregar, Eveline, *Mosaic of Educational Technology*, (Jakarta: Kencana, 2004)

Various reform efforts have indeed been carried out, but now what is really needed is educational transformation. Several new trends that can be used as a basis for considering the need for educational transformation efforts are as follows: probing learning, independent learning, learning the structure of the field of study, learning to achieve mastery, education for personality development, systems approach, distribution of time, distribution of places, diversity of sources, differentiation of roles, economics of education, development of theories and principles.

The application of educational technology, based on empirical analysis conducted by the United States Commission, can produce the following things: increasing educational productivity, fostering and developing more students' learning activities, providing the possibility of more individualized education, providing a more basic learning basis. scientific, more solidifying teaching, increasing learning abilities by expanding the range of presentation, enabling more intimate learning because it can reduce the gap between lessons outside of school, and enabling equal distribution of quality education.

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