

## THE USE OF E-LEARNING IN INCREASING LEARNING PRODUCTIVITY

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### ABSTRACT

*Science is believed to be a chain breaker of poverty. Therefore science should be given equally to all people regardless of urban or in remote communities. So that people get used to learn the science should be displayed and presented with a straightforward, clear, attractive and the most important part is that it can be studied and accessible by the entire society to knowledge equalization can be achieved.*

*Internet use is currently the best alternative could be favored to achieve even distribution of knowledge. Implementation of e-learning as "using ICT to learn" is believed to be able to overcome the problem of educational equity. It can be seen from the level of effectiveness and efficiency. The impact of its efficiency and the effectiveness, e-learning is expected to increase the productivity of learning. Target so that e-learning can improve productivity requires an educator for creative thinking that online learning can be easily understood by the public. It is necessary for productive creative learning models that learning as it rests on constructivist theory, which means that the study is an attempt of giving meaning to the student based on his experiences, students can incorporate new ideas into previous knowledge. Hopefully, through productive creative learning students can develop the creativity to produce a product based on its understanding. Increased productivity of learning can be done through the incorporation of e-learning with creative learning productive, because they both have similarities which requires students to learn (1) active (not depend on the teacher), (2) creatively develop their knowledge, (3) constructive (combining new ideas into the knowledge that has been held previously, (4) collaborative (students can work with the group).*

**Keywords:** productivity, e-learning, internet, education

### INTRODUCTION

Development of technology especially in the field of information technology has made all the events and developments in the world can be known by the world community in just a few moments, the development of the Internet has made information, especially as the distance between countries is getting closer. Communication more easily and quickly make the information public mindset change, people often receive information as it is without examining the truth of the information so it is not surprising that people often mistakenly received information. Change the mindset of a changing society must be balanced with sufficient knowledge, so that people do not easily absorb the information they receive. Giving knowledge evenly on the community is not an easy job, it takes constant effort of the local government, central, public figures and even of society itself. To expedite the receipt of the necessary means of delivering knowledge that quickly as well, for example with the use of the Internet as a medium of learning or who is known by the term e-learning.

Learning via the Internet is the impact of information technology development, as expressed by Subandowo and Suwirta (2014) that "the style of the people, in a wave of civilization that is marked by the advancement of information and communication technology, IS ALSO changing the structure and face of the word ". Information technology developments are also

affecting the development of learning models, as stated in Subandowo and Suwirta Naisbitt (2014) that “globalization that is driven by advances in science and technology, for example affected the world education in terms of (1) more choices for getting the education, (2) the increasing role of informal education at home, (3) the concept of compulsory education to change where the time taken to be getting shorter and responsibilities in the family, (4) the use of computer assisted instruction and electronic video recording increasingly widespread, (5) mobile education becomes trend, in which the students can be learned not only in schools but also in the workplace or elsewhere, (6) education curriculum was prepared by professional groups and stakeholders, whether citizens or residents to learn, and no longer by the bureaucrats or central government, (7) a model of learning with the systems of individual study and apprenticeship will being expanding, (8) the standardization of competence is no longer determined by the institution through certificate, but by the accreditation body and certified by professional organizations, (9) vision of science and technology education reinforces the concept of lifelong education, and (10) the concept of lifelong education is also an opportunity for learning in school part time and work part time in the field for the younger generation, particularly the type of job and vocational skills. Based on the above explanation can be believed that internet media is media that can answer the development of information technology for learning.

Wahono (2008) describes the components that make up the e-Learning is:

1. E-Learning Infrastructure: Infrastructure e-Learning can be a personal computer (PC), a computer network, internet and multimedia equipment. Including teleconference equipment if we provide services synchronous learning via teleconference.
2. Systems and Applications e-Learning: System software to virtualized conventional teaching and learning process. How classroom management, the manufacture of the material or the content, discussion forums, a scoring system (report cards), online examination system and all the features associated with the management of the learning process. The software system is often called a Learning Management System (LMS).
3. The e-Learning Content: Content and teaching materials available on the e-Learning system (Learning Management System). Content and teaching materials can be in the form-based Multimedia Content (in the form of interactive multimedia content) or Text-based Content (text-based content as the regular textbooks). Ordinary stored in a Learning Management System (LMS) that can be run by students anytime and anywhere.

UNESCO in 2002 illustrates the use of ICT for learning (e-learning) with two phrases are "learning to use ICT" and "using ICT to learn". UNESCO categorizes the use of ICT for learning in school into four levels as follows,



New emerging Stage means realizing the importance of ICT for learning and have not attempted to implement it. Phase applying one step further, where ICT has been used as an object for study (learning to use ICT). At the stage of integrating, ICT has be integrated into the curriculum. Transforming stage is the most ideal stage where ICT has been a catalyst for educational change. ICTs have been applied in full both for the learning process as well as for the administration.

Development of instructional media through e-learning in Indonesia is still mostly the stage of "learning to use ICT", it is characterized by still many schools that apply ICT as a subject. Although there are still schools that apply ICT as a subject, the learning process to go "using ICT to learn" to be developed by various parties for the realization of educational equity through online media. Implementation of e-learning as "using ICT to learn" is believed to be able to overcome the problem of educational equity, it can be seen from the level of effectiveness and efficiency. The impact of e-learning efficiency and effectiveness is expected to increase the productivity of learning.

Productivity learning can be seen from the aspect of learning outcomes, the result is not only pegged on increased knowledge, enhanced thinking skills alone, but also includes changes in attitudes and behavior after learning. Target so that e-learning can improve productivity requires an educator for creative thinking that online learning can be easily understood by the public. It is necessary for productive creative learning model, learning as it rests on constructivist theory, which means that the study is an attempt of giving meaning to the student based on his experience, students can incorporate new ideas into previous knowledge. Hopefully, through productive creative learning students can develop the creativity to produce a product based on its understanding.

### **ROLE OF E-LEARNING IN EDUCATIONAL WORLD**

Learning outcome is the main aim of the learning process, so that these objectives can be achieved then you have plenty of learning strategy which is expected to be a bridge for students to get to success. One strategy that is now starting to grow is the e-learning strategy. According Triono (2007) the role of e-learning in particular the use of the Internet is very important in education, because information technology has a standard platform allows everything interconnected, character internet is cheap, simple and open resulting in the Internet can be used by anyone (everyone), anywhere (everywhere), anytime (every time) and is free to use (available to everyone). Rosenberg in Triono (2007) explains that the development of education towards e-learning is a necessity that quality standards of education can be improved, because e-learning is the use of Internet technology in the delivery of learning in a wide range, which is based on three criteria, namely: (1) e learning is a network with the ability to update, store, distribute and share teaching materials or information, (2) delivery to end users via a computer using a standard internet technology, and (3) focusing on the views of the most extensive of learning behind the paradigm traditional learning..

According to Bates (1995) and Wulf (1996) e-learning has four benefits: (1) if they are designed and managed properly e-learning can improve interaction between students and teachers, (2) the interaction of learning can be done anytime and anywhere, (3) to reach learners in coverage, and (4) facilitate the refinement and storage of learning materials. Chaeruman (2008) revealed when viewed from the role of the Internet for students, e-learning is the use of technology are relevant and appropriate for teachers to allow students (1) an active participant, (2) generate and share knowledge / skills, and (3) learning collaboratively with other students. Theoretically e-learning according to Jonassen (1995) cited by Norton et al (2001) in Chaeruman (2008) revealed that the use of ICT allows the learning process,

1. Active; allow students to be actively involved by the learning process interesting and meaningful.
2. Constructive; allowing students can incorporate new ideas into the knowledge that has been held previously to understand the meaning or curiosity and doubts that had been there in his mind.

3. Collaborative; allows students in a group or community that work together, share ideas, suggestions or experiences, advise and provide feedback to fellow group members.
4. Enthusiastic; allowing students can actively and enthusiastically seek to achieve the desired goal.
5. Dialogic; enabling the learning process is inherently, is a social process and dialogue where students take advantage of the communication process both inside and outside of school.
6. Contextual; enabling learning situations aimed at meaningful learning process (real-world) through a "problem based or case-based learning".
7. Reflective; allowing students can realize what they have learned and reflect on what they have learned as part of the learning process itself.

### E- LEARNING IN INCREASING LEARNING PRODUCTIVITY

Productivity learning requires teachers to think creatively in order to create increased productivity on students so as to improve the quality of the process and learning outcomes. Creative learning productive have in common with e-learning that students are required to learn (1) active (not depend on the teacher), (2) creatively develop their knowledge, (3) constructive (incorporating new ideas into the knowledge that has been held previously , (4) collaborative (students can work with the group, so as to improve the ability to communicate), and (5) cooperative (students have the ability to put forward an argument based on the knowledge he already has).

Learning productivity can be achieved through a process of education that goes perfectly, it is necessary for (1) the policy of the school management, (2) curriculum careful planning, (3) human resources that are reliable, and (4) funding. The four factors above is the determinant of the increase or decrease in a productivity study. Triono (2008) recommend a model platform to improve the quality of education through e-learning as follows,

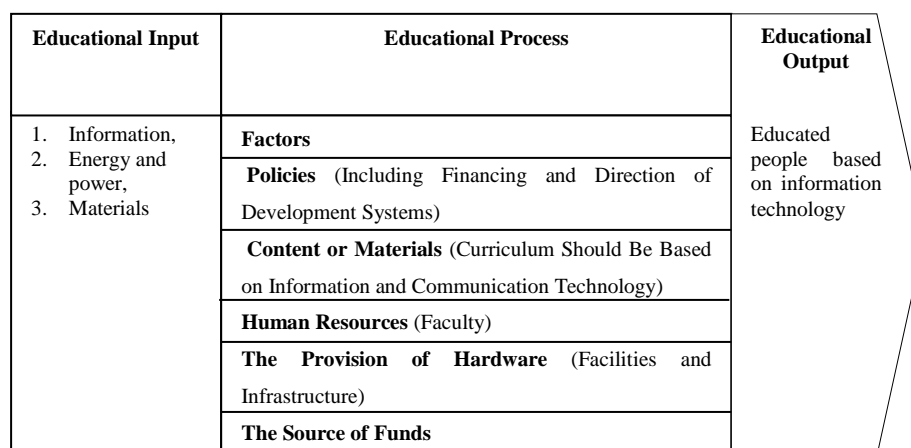


Figure 1. Alternative Model Platform (Value Chain Based Model)

From the platform above it can be seen that the output of education is learning productivity enhancement through the birth of educated people based on information technology.

### CONCLUSION

The development of information technology cannot be avoided by the people of Indonesia, for the community to be prepared so that they can face the technological advances. The

necessary preparations are in the form of equity in order to increase public knowledge and insight into the mindset of society can be changed in a positive direction, it is necessary for learning strategies that can reach many people with low cost and immediate access. Also required creative learning productive for the purpose of learning can be reached all levels of society.

Increased productivity of learning can be done through the incorporation of e-learning with creative learning productive, because they both have similarities which requires students to learn (1) active (not depend on the teacher), (2) creatively develop their knowledge, (3) constructive (combining new ideas into the knowledge that has been held previously), (4) collaborative (students can work with the group, so as to improve the ability to communicate), and (5) cooperative (students have the ability to put forward an argument based on the knowledge he already has). E- learning requires teachers to be creative and innovative thinking so that learning can be run with fun and easy to understand, so that the learning objectives to increase productivity can be achieved.

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