

## **The Impact of Information and Technology in Education**

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### **ABSTRACT**

Learning technology continues to develop along with the times. In the implementation of daily learning, we often encounter the use of information and technology developments in the world of education, as is often done by teachers or lecturers, namely combining information and technology tools in the learning process. However, information and technology will not only bring positive benefits, but will also have a negative impact. The development of information science and technology has a positive impact by increasing the openness and dissemination of information and knowledge from and to all over the world across the boundaries of space and time. The negative impact is the occurrence of changes in behavior, ethics, norms, rules, or morals of life that are contrary to the ethics, norms, rules, and morals of life that exist in society.

**Key word** : Information Technology; Education.

### **INTRODUCTION**

The development of information and communication technology has had an impact on the world of education, especially in the learning process. According to Rosenberg in G. Gunawan (2009) in Sudibyo (2011), with the development of the use of information and communication technology, there are five shifts in the learning process, namely: 1) from training to appearance, 2) from classrooms anywhere and anytime, 3) from paper to “on line” or channel, 4) from facility to network facility, 5) from cycle to real time.

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dissemination of information and knowledge from and to all over the world across the boundaries of space and time. The negative impact is the occurrence of changes in behavior, ethics, norms, rules, or morals of life that are contrary to the ethics, norms, rules, and morals of life that exist in society.

The development and advancement of information technology is one of the innovations that humans have created. Every innovation created to provide positive benefits for human life. Information technology (IT) also provides many conveniences, as well as a new way in carrying out human activities and also as a solution to solving problems experienced by humans. However, even though it was originally created for produce positive benefits, on the other hand it is also possible to use it for other things negative. Therefore, in this paper, the author will highlight some problems related to the role of information technology in the world Education, as well as the impact of using IT, both positive impacts as well as negative impacts. Likewise, examples of problems experienced by some students in using information technology.

### **THE IMPORTANCE OF EDUCATIONAL TECHNOLOGY IN TEACHING**

Since computers are still not widely used in many schools, the teaching process is dominated by traditional methods. It is dominated by the frontal form of work where the teacher had enough interaction with students. Failure to thrive at their own pace and insufficient activity of students was one of the drawbacks of this type of learning. In class, we have children who are not uniform in knowledge and never pay enough attention to those who are not sufficiently mastered the material and those who are above their average. This difference is often hampered by teacher assessment work and how to transfer knowledge to a group of children with different knowledge. The teacher chooses to keep average to good teaching where children with insufficient knowledge would not get the necessary knowledge. The children with insufficient knowledge can progress smoothly without unpleasant feeling of their ignorance, no frustration, and humiliation while for the most advanced children teaching will be boring.

### **LITERATURE REVIEW**

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Among the first studies on the comparison of the traditional and modern ways with the help of educational technologies research was Clark Richard (Clark, R. 1983). He tried to compare research between lectures and computer guidance and instruction to determine which the better way of learning is. He came to the conclusion that they are both effective depending on the ways they are used. The same conclusion came by other authors (Dynarski et al. 2007; Kulik, 2003) and that is that there are some major differences in the use of educational technology and traditional teaching. On the other hand, research at the Center for Educational Research in Pittsburgh within Individually Prescribed Instruction showed that computers are better tailored to the individual abilities of students, rather than teachers themselves.

Educational technology must inevitably be integrated into classrooms and curricula (Clements and Sarama, 2003; Glaubke 2007; NAEYC and Fred Rogers Center, 2012). With the advent of educational technology in the classroom teacher, education is faced with the challenge that teachers integrate educational technology in their daily work. Numerous studies have shown that a small number of teachers is willing to integrate educational technology in their teaching activities (Becker, 2000; Hermans et al., 2008; Stošić and Stošić 2013; Wang et al., 2004). The reason is that there are two categories of teachers in the understanding of educational technology. Some of them have thorough understanding of modern technical appliances and their operation while others think it is necessary for them to gain additional technical knowledge of the appliances and methods, teaching methods, student-teacher relationship. These two groups represent a group of teachers between older and younger teachers.

Older teachers during their study did not have the possibility of training with modern technical appliances, did not have the information technology, educational technology... while the younger generation of teachers possess the knowledge required for the use of educational technology. For a better

understanding of educational technology requires a set of computer science, pedagogy, psychology, cybernetics, informatics.

The knowledge teachers possess is sufficient for a basic use of educational technology. However, educational technology is one big system. First of all, teachers have a basic knowledge of the use of educational technology. It takes far more professional training through a variety of conferences, courses, professional literature, seminars... in order to get a better knowledge in the use of educational technology. The fact is that under use of educational technology, primarily due to poor school equipment necessary resources, insufficient information and knowledge of teachers and the lack of interest and lack of motivation of teachers to use them. Teachers have to be motivated to use the same because the use of educational technology in teaching provides better interaction with students, better reception of information because the students receive knowledge visual, auditory and kinesthetic way. Among other things, an educational technology motivates students to work independently where the student is more motivated to return to learning and working because modern technical equipment is widely available at any given moment.

## **METHOD**

### **Design and Sample**

The design of this research is descriptive qualitative so that this research produces an explanation of information as composed or spoken words of the subject at that time and his observable behavior, thus the aim of the study is the understanding of the individual and his total experience. This research uses action research method Kemmis and Taggart classes (in Arikunto, Suhardjono & Supardi, 2015) There are four major steps that must be taken in this research every time cycle, namely, planning, action, observation, and reflection. Technique Data collection used in this study are observations, interviews and questionnaires. By utilizing descriptive qualitative research, data can be clarified in more detail and focus on The Impact of Information and Technology in Education in class X SMAN 1 Ciampel.

### **Instrument and Procedure**

The research instrument used in this study is a guideline observations during learning and interview guidelines, regarding the applied learning model. Source of data in research this is the student who is the main subject to display change from the implementation of the action. And also the teacher

of class X Social 2 is also used source of data because the classroom teacher knows the research subject very well.

## **RESULT AND DISCUSSION**

The presence of educational technology is growing in the classroom. The new generation of kids come ready to work with these new technologies, which play an important role in children's learning and acquiring various cognitive knowledge so that educational technology must be incorporated into future curricula. The application of educational technology enhances skills and cognitive characteristics. With the help of new technology comes an explosion of learning and receiving new information, especially on mobile devices.

Teachers have been using new technologies in the classroom. However, the development and application of new technologies grows as a measure that is the question of whether teachers are trained to keep up with them. Here we have two problems. Are the teachers have the ability to use educational technology and whether the school is sufficiently equipped with all modern technical means? Numerous studies were carried out, some are still ongoing, but we have to find the right strategies to apply educational technology in teaching.

## **CONCLUSION**

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