

The Teachers' Challenges In Applying Information And Communication Technology As English Teaching Media

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Abstract-This study aims to: 1) describe the factors that support the success of implementing Internet information technology in schools, and 2) describe the challenges of teachers in using the Internet as teaching media in schools.

This research was conducted using qualitative methods that use observation and interviews. The use of these two instruments is intended to obtain information about the application of Internet technology in the teaching and learning process in the classroom, and the challenges faced by teachers in implementing the Internet as a medium of learning in schools. This research was conducted at Muhammadiyah Senior High Schools 3 and Muhammadiyah Vocational School 1 in Batu, East Java, Indonesia.

The results of the study show that there are three factors in the success of implementing Internet information technology in schools. In applying Internet information technology, teachers have challenges in using the internet as a medium of education in schools. These challenges can be classified into two categories, namely 1) technical difficulties and 2) non-technical difficulties.

Keywords: challenges, teachers, information and communication technology, learning media, English.

I. INTRODUCTION

Learning English needs to be improved in quality by using learning media such as the use of information and communication technology (ICT). Ahmadi (2018) said that technology has played an important role in the learning process both inside and outside the classroom. Teachers generally have used technology to improve the quality of learning English. Utilization of information technology by teachers in the classroom can also help students understand subject matter easily so that they are able to improve their learning outcomes (James, 2014). Thus the use of information and communication technology (ICT) is a necessity in the teaching and learning process in schools, so that teachers are

required to be able to use ICT as a medium of teaching English at school. Dogan (2013) said that along with the rapid increase in information and skills, students must learn as an impact of the dissemination of information that is not possible to be taught by schools. Therefore, it is important to teach students about the skills of how and where to obtain information sources as part of the education process. Thus, the use of ICT and the Internet in accessing information sources is important in the teaching and learning process.

In the education, English is one of the important and fundamental skills that enable teachers to improve their achievements (Rimando, 2010). By using English, teachers can obtain new experiences that are the basis for the acquisition of knowledge.

Media is an instrument that can motivate and stimulate interest in learning. Both manual and electronic media are very important to help teachers gain teaching experience. Now many teachers are familiar with electronic media such as computers. Computers are an effective way to gain knowledge because computers can show images or objects including knowledge that is being sought by teachers and students. Similarly, computer programs can show them interesting objects so that they can learn well.

According to Erdem and Kibar (2014), in the current era of information technology, many people including teachers and students are trying to find more efficient ways to find information or knowledge through the Internet. DiBlas and Paolini (2013: 15) say that information technology helps teachers improve the quality of teaching and learning processes in schools. In other words, information technology such as the internet can provide a lot of useful information. Teachers and students at any time can access various information they need through the Internet. This makes the Internet familiar to everyone because they already feel the Internet as part of their daily activities. The widespread use of the Internet for teaching and learning purposes in schools has been explained by Yemen and Yemen, (2014).

According to Gray (1999), there are at least four functions of the Internet as a medium of education in schools, namely: (1) Searching and Finding Information, (2) Publishing and Providing Information, (3) Dialogue Facilities, and (4) Collaborative and Learning Facilities. The four functions are the way to implement the internet in learning English.

This research was conducted based on two main problems, namely:

- a. What factors support the success of Internet technology implementation at school?
- b. What challenges do teachers face to use the Internet at school?

II. METHOD

This study uses qualitative methods using observation and interviews. The use of both instruments is intended to obtain information about the factors that determine success in the application of internet technology in the teaching and learning process in the classroom, and the challenges faced by teachers in implementing the Internet as a medium of teaching in schools.

The participant of this study consisted of two English teachers in Muhammadiyah Senior High Schools 3, and three English teachers who taught at Muhammadiyah Vocational High School 1 in Batu City, East Java, Indonesia, so that the total participants were five people from two schools. Teachers were interviewed about the factors that made them succeed in using the Internet and the challenges they faced when using the Internet in schools as a medium for teaching English.

Data obtained through interviews were analyzed using interpretation and decoding techniques (Harb et al., 2013). Observation results are used to strengthen the analysis of interpretation and decoding. The results of data analysis are used to interpret the findings and to draw conclusions.

III. FINDINGS AND DISCUSSION

Based on the results of interviews with teachers at Muhammadiyah 3 High School and Muhammadiyah 1 in Batu City, Indonesia, it can be

said that they are generally used to using the Internet as a medium of teaching in schools. They stated that English teachers in utilizing Internet technology had used a method that had been designed by themselves, that is, through several stages starting from the process of determining the topic of learning, the delivery of subject matter in the classroom and the process of assessment of student progress. In the first stage, they make preparations by determining the subject matter and the material to be delivered to students. The material they use is downloaded from the Internet. After they obtain the appropriate subject matter, then it is selected and adjusted to the competencies and learning objectives.

In the second stage, the teacher carries out learning in the classroom using material prepared from the Internet. In the learning process, the teacher introduces to students about Internet-based material that will be studied. From the introduction the teacher explained about the benefits of the Internet in improving learning outcomes through available information sources on the Internet.

After completing the Internet-based subject matter, the teacher carries out the third stage, namely, assessment. At this stage the teacher evaluates the advantages and disadvantages of the subject matter that has been delivered to students. The results of the evaluation are used as material to determine the next teaching material that is suitable for students' abilities. The results of the evaluation conducted by the teacher are also important to choose the next lesson material from various addresses of websites that provide a variety of subject matter in accordance with the demands of the curriculum.

The phasing of using Internet-based subject matter shows that teachers in Muhammadiyah 3 High School and Muhammadiyah 1 Batu Vocational School in general have succeeded in utilizing information technology as a medium of learning in schools. There are three important factors that influence the success of the application of information technology. The three factors are personality, application process and social. The relationship among the three is shown in chart 1.

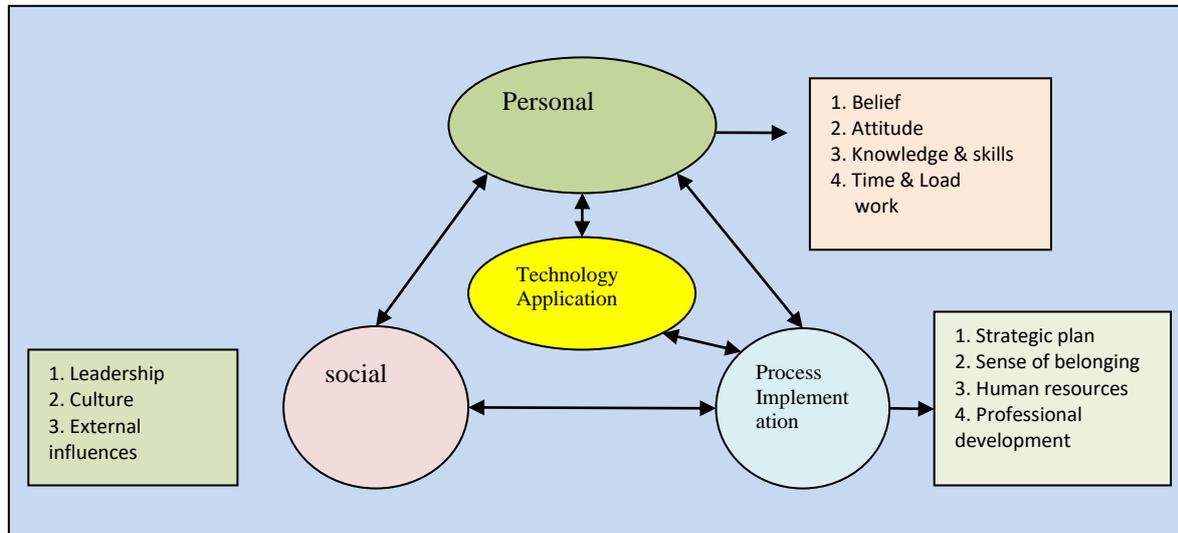


Figure 1. Model of factors that support the success of ICT implementation

1) Personality Factor

As an individual educator, the teacher has four competencies that must always be developed to improve the quality of teaching in the classroom, namely: 1) pedagogical competence, 2) professional competence, 3) social competence and 4) personality competencies. As an individual, the teacher has a set of personality elements that must be fostered to become individuals who are stable, mature, wise, and authoritative, so that they become role models for students and have behaviors or noble character. In the application of information and communication technology, individual factors play a decisive role because in each individual there are four components that influence him to always develop into more skilled as a teacher. The four components are: beliefs, attitudes, knowledge and skills, and time and workload.

2) Application Process Factor

Every effort to implement technology in an institution or organization can certainly require a process from its implementation. The process is a condition that must be fulfilled so that the implementation of information technology can run smoothly. There are several components that must be considered so that the process of implementing information technology can take place in accordance with the intended purpose. The component covers several things as follows:

a. The strategic plan

The results of the interview indicated that their school was equipped with a strategic plan in addition to the school's vision, mission and goals. In the strategic plan contained in the school it has been explained that internet technology is part of the development of media and school learning resources. This means that the application of internet information technology has become part of school

policy and will continue to develop its quality as a medium of learning in the school environment.

b. A sense of belonging

According to the results of interviews, teachers can improve their sense of belonging through various activities including training on the use of the internet as an educational medium. According to them the activities organized by schools are generally designed to increase their knowledge and skills so that they are able to improve the quality of learning. Thus, it can be said that sense of belonging is an integral part of the process of implementing the application of internet information technology in schools.

c. Human Resources

The results of the interviews show that the teachers have been involved in the process of implementing internet technology so that they have succeeded in developing themselves in improving the quality of teaching and learning activities. They have fully understood that the application of information technology in schools is a school asset as well as part of human resources that must play a role in all activities, especially the application of information technology.

d. Professional development

The results of the interview showed that they had participated in the teacher professional training program because their tenure had fulfilled the requirements to participate in the training program, which was more than seven years. Thus, they generally know and utilize information technology during the implementation of the exercise, especially when they take part in classroom action research exercises because it contains material on how to use the internet in finding or tracing the latest reference sources.

3) Social Factors

The Work Environment is a factor that cannot be separated from the process of applying information technology. This factor includes three components, namely:

a. Leadership

Leadership is a component that cannot be underestimated in the implementation process of the application of information and communication technology because leadership is a dynamic or driver of an organizational wheel as part of the work environment. Schools as institutions or organizations that serve the educational process for society are largely determined by the policies of their leaders. Leaders or principals have a major role in developing teacher competencies.

b. Culture

The teacher has not fully made internet access a culture in academic life. This means that they access the internet is still limited to the need to find additional learning material. When they have found some instructional materials, they have not accessed Internet any longer. Thus, it can be said that accessing the internet has not become part of routine academic activities so they still have limited hours of access. This can be seen from their teaching hours for English language lessons only available in 4 hours in a week.

c. External influences

The community environment around the school plays an important role in supporting the teaching and learning process. In Batu city, for example, internet cafes that rent out Internet access to the general public have become a facility that makes it easier for people, especially students, to become alternative libraries.

Challenges and difficulties arise when they access the Internet at school. The challenges they face when using the Internet in the classroom in general can be broken down into two, namely technical and non-technical difficulties, as follows:

A) Technical difficulties

There are several technical difficulties faced by teachers in utilizing the Internet as an educational medium, namely: computers, Internet networks and blackouts.

1) Computer

Both schools have a representative information technology laboratory with a number of computers according to school curriculum standards. However, there are some computers that experience problems when used to access the Internet because they often experience technical errors. Although it does not have a significant impact, it can interfere with teaching and learning activities.

To overcome this difficulty, the teacher usually calls a computer technician who is available at school. The process of calling a technician usually takes a few minutes plus the time to reset the computer program so that it disrupts the learning activities by reducing the hours of learning that are reduced by the repair process.

2) Internet network

Problems with internet networks can be seen when the learning process utilizes internet facilities. When accessing information sources from certain websites during

the morning hours, the Internet connection does not experience problems. On the other hand, accessing the internet during class hours during the day the connection has a problem that is the network connection is weak so it takes longer to access information from the Internet. This is because during the day the number of users of the internet network in schools increases so that the available internet network must be divided into several computers or laptops belonging to the teachers who are accessing the Internet.

To overcome this problem, teachers usually change the schedule of internet access in schools not during the day but in the morning. This is done to avoid rush hour of Internet access. In addition to changing the schedule of Internet access from morning to noon, English language teacher once gave the assignment to students to do the task by doing Internet access at home or in the internet cafe. The assignment is intended to reduce the hourly density of internet access in schools so that teachers can freely access information or additional learning materials through the internet.

3) Power outages

In addition to computers and internet networks, the outage of electricity is also a separate problem of the teaching and learning process that uses Internet access facilities. When there is a blackout, all computer devices cannot work. Although outages of electricity can be said to be rare, but when that happens it can have a bad impact on teachers' performance in accessing the Internet. They were very disappointed when the electric current suddenly went out while the work was not saved.

According to the teacher's information, to overcome the problem of power outages, they usually keep data as often as possible so that the data is not lost when there is a blackout. Although this method is felt to be less efficient, it can help teachers to reduce the negative impact of a power outage.

B) Non-technical difficulties

There are two forms of non-technical difficulties, namely, lack of motivation, knowledge and skills of the teacher.

1) Lack of Motivation

Although teaching English through the Internet has advantages compared to those without using the internet, there are some teachers who are less motivated by learning through the Internet. This was revealed by an English teacher at the research location. The teacher who lacks of motivation can be seen from the attitude of his behavior when teaching. They look less enthusiastic and rarely even use laptops in class when teaching.

Overcoming such non-technical constraints, teachers are motivated by a principal to use the Internet as a learning medium by displaying interesting power points. Teachers must prepare lesson material with learning media devices that can arouse students' curiosity. In the learning process, teachers who are seen feeling less experience about the Internet are involved in training on the use of the Internet held by schools.

2) Lack of Knowledge and Skills

Teachers' level of knowledge and skills towards information and communication technology differs from each other so that they have different ability to operate computers or access the Internet. Those who have better ICT knowledge have the ease of accessing the Internet and they can access information faster than those who have no knowledge at all about the use of ICT. The difference in the level of knowledge of ICT among teachers makes them have to make time to learn how to access the internet.

The non-technical problems can be overcome by implementing an Internet utilization training program implemented in schools involving all teachers as trainees. Then the teacher is given the opportunity to use a computer in a computer laboratory at school. In addition, the school leadership encouraged teachers to have a laptop that made it easier for them to access information related to subject matter.

IV. CONCLUSION

Based on the results of the study it can be concluded that:

There are three important categories that influence the success of application of information technology. The three categories are: 1) personality that includes beliefs, attitudes, knowledge and skills, and time and workload. 2) Implementation of processes that are based on, strategic plans, ownership, human resources, and professional development. 3) Social which has components namely, leadership, culture, and external influences.

Challenges or difficulties faced by teachers in utilizing the Internet as a medium of education in schools can be categorized into two groups, first, challenges or technical difficulties which include, computers that have technical errors, internet networks that experience weak connections during certain hours, and blackouts that cause all computer networks and the Internet not to function. Second, non-technical difficulties that include, lack of motivation, teachers often feel bored when teaching in the classroom, and lack of knowledge and skills in accessing the internet.

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