THE IMPORTANCE OF USING TECHNOLOGY IN ENGLISH TEACHING AND LEARNING

Masruddin
STAIN Palopo

Abstract

This paper is focused on the description of technology role in English teaching and learning. Globalization has created a new world order for doing business. New information and communication technologies (ICTs) have dramatically changed the way we live, learn, work, and even think about work. The synergy of combining globalization with new technology has had dramatic economic and social impacts include in English language teaching and learning. the role of technology media is needed in learning process where media is not as a tool but as a part of integral in educational system and learning process. Furthermore, the use of technology as media in classroom is very helpful. Furthermore, media technology can increase the students' interesting in learning process.

Keywords: Technology, English Teaching and Learning.

A. Introduction

During last several decades, one of the most exciting changes in education is related to the word ‘‘technology’’. Although some debates regarding the effectiveness of technology have existed (e.g., Kleiman, 2004;Kozma, 1994), most researchers agree that technology can be used effectively as a cognitive tool as well as an instructional media. For example, Bruce and Levin (2001) suggest that technology can be helpful in classroom settings by encouraging inquiry, helping communication, constructing teaching products, and assisting students' self-expression.

Globalization has created a new world order for doing business. New information and communication technologies (ICTs) have dramatically changed the way we live, learn, work, and even think about work. The synergy of combining globalization with new technology has had dramatic economic and social impacts. It has created new opportunities as well as new challenges and uncertainty. Many workers have been dislocated, while a significant number of young people are structurally unemployed or underemployed. Skills polarization between so-

called mind or knowledge workers and unskilled-low-knowledge has widened the gap in income inequalities.

The term 'technology' is used to refer to electro mechanical systems used for language teaching (delivery modes). The technology in today's fields of teaching is often associates with the use of the information and communication technology (ICT). Related to the reality about the technology used in learning, the teachers have big roles in making it successful or not. The teacher needs some skills in using those technology tools at school or university. Then to have a good result in using technology, the teachers should have a good attitude towards the technology used.

In addition, the result of some researchers has shown that ICT media has superiority to help teachers to deliver learning message faster and easier for students. In addition, media have a positive effect and can change the students' behavior to be creative and dynamic. Then, the role of media is needed in learning process where media is not as a tool but as a part of integral in educational system and learning process. Furthermore, the use of technology as media in classroom is very helpful. Furthermore, media technology can increase the students' interesting in learning process.

Therefore, it is important for teacher to use of ICT in language classroom. In this research the writer will focus on explaining the importance of using ICT in language classroom.

B. Definitions of Technology

What is "technology"? Many people probably have a general understanding of this word. However, it is easier for most people to give examples of technological equipment, rather than a clear definition of the word. College students could mention such devices as computers, radios, televisions, CD/DVD players, digital cameras, photocopiers, and other modern gadgets. Middle-aged people could mention electric drills, electric saws, laser levels, and other handy tools. Elderly people could mention film cameras, vacuum tubes, gasoline engines, and diesel engines. But do these examples define "technology"?

According to The American Heritage Dictionary of the English Language, the word "technology" is derived from the Greek word "tekhnologia," meaning "systematic treatment of

an art or craft." Thus, in modern English, the first listed meaning is "the application of science, especially to industrial or commercial objectives." The second listed meaning is "the scientific method and material used to achieve a commercial or industrial objective." As mentioned above, college students are most familiar with the next meaning, "electronic or digital products and systems considered as a group: a store specializing in office technology." However, the last definition is the most historic and the most interesting. The dictionary mentions that this definition is from the field of Anthropology: "the body of knowledge available to a society that is of use in fashioning implements, practicing manual arts and skills, and extracting or collecting materials" (American Heritage).

Do these definitions help people understand what "technology" is? Does it mean something different now than it did to the ancient humans? Even though the "technology" of 2010 A.D. is vastly different compared to that of 2010 B.C., it still fulfills the same purpose in the lives of people today: it helps to improve food, clothing, and shelter. In that same process, it helps humans to do better whatever they need to do in order to survive. It helps many people to communicate better, feed their families better, and do their jobs better. Even though most of the "pure science" taking place in research laboratories will not directly affect people, the everyday products of "applied science technology" are helpful tools to improve the quality of human lives. So, as the Merriam-Webster Medical Dictionary states, "technology" is just "application of knowledge to practical purposes" or "a scientific method of achieving a practical purpose" (Merriam-Webster).

Fred Flintstone and his friends had only animal power and stone tools for their technology, yet somehow ancient scientists constructed enormous astronomical calendars such as Stonehenge, simply so they could plant their crops at the correct time every year. Other ancient ancestors built huge pyramids out of dirt or stone to honor their Creators. But the spears of the cavemen, as well as the bows and arrows of the Native American Indians, were very effective examples of "Stone Age" technology. The efficacy of these early stone tools could easily be demonstrated by their ability to kill animals for dinner. Undoubtedly, these "Stone Age" warriors also discovered that this same technology could bring down humans just as easily as animals.

After the "Stone Age" came the "Bronze Age," when humans first learned to forge metal tools. These craftsmen also noticed that metal tools could be sharpened much better than stone tools. Later, the "Iron Age" laid the foundations for the "Industrial Revolution," but iron technology also produced cannons and guns. As weapons technology improved, so did its

power; efficient projectiles capable of killing several animals or humans replaced the old-fashioned hand-to-hand combat of ancient warriors. Today's WMD technology can kill millions of people with one bomb.

Does technology really improve human life, or just make it more complicated? Perhaps modern people need to heed the 200-year-old message of Tensquatawa, the Shawnee Prophet, who preached to Native Americans and to anyone else who would listen. He warned against the evil tools (technology) which corrupt and destroy human beings, in opposition to the good tools (technology) given by the Creator ("Master of Life") to help human beings. In the twenty-first century, technological tools and machines outnumber people. Hopefully, the machines will not enslave humanity, such as seen in the *Terminator* and *Matrix* movies. If humans do not learn how to control technology, it will control them.

Based on the above explanation, it can be said that technology has big influence towards the education worlds. It can be used to develop the quality of education in every field of studies.

Based on the writer's believe, the things that the thing that should be improved is the using of media. The result of some researchers have shown that media has superiority to help teachers to deliver learning message faster and easier for students. In addition, media have a positive effect and can change the students' behavior to be creative and dynamic. Then, the role of media is needed in learning process where media is not as a tool but as a part of integral in educational system and learning process.

The using of technology as media in classroom is very helpful. Furthermore, media technology can increase the students' interesting in learning process. Movie as a one of the kind of modern technology, it can be used as a good media since it is an enjoyable things for students. Computer technology is an invention that allows present some or all forms of stimulus, namely relations or human interaction, reality, moving images or not, the writing and voice recorded. Therefore learning would be more optimal (http://www.ialf.edu/kipbipa/papers/OudaTedaEna.doc), however, problems arise not as easy as imagined. Teacher is a person who has the ability to realize the five forms of the stimulus in the form of learning. However, most of teachers do not have the ability to bring it to the fifth stimulus computer program .The solution is to realize the stimuli in a computer program using macro media flash applications and thus the teachers will easily realize teaching ideas.

Instructional media in general is the process of teaching and learning aids. In addition, instructional media is anything that can deliver the message, to stimulate thoughts, feelings, and the willingness of the students so as to encourage the creation of learning process in self-learners. Learning media includes all the necessary resources to communicate with learners. This could be either software (software) which contains a message or educational information, while equipment (hardware) is a means to be able to display the messages contained in the media. Learning interest owned by learners assumed to increase academic achievement. Be appropriate if the learning media is capable of learning the presentation: saving time in class, easy to show examples that exist in everyday life, can be packed more interesting because of the shape and color can be played in accordance tendencies shape and color preferred learners. Macromedia flash is one of the computer software that are able to be used to create images, animations and other students were able to increase the interest to follow the teaching and learning process.

C. Use of Technology in English Teaching And Learning

In teaching and learning, we have a lot to choose from the world of technology: Radio, TV, CD Rom, Computers, C.A.L.L., the Internet, Electronic Dictionary, Email, Blogs and Audio Cassettes, Power Point, Videos, DVD's or VCD's. The last two decades have witnessed a revolution due to onset of technology, and has changed the dynamics of various industries, and has also influenced the industries and the way people interact and work in the society. This rapid rising and development of information technology has offered a better pattern to explore the new teaching model. As a result technology plays a very important role in English teaching. Using multimedia to create a context to teach English has its unique advantages.

The new era assigns new challenges and duties on the modern teacher. The tradition of English teaching has been drastically changed with the remarkable entry of technology. Technology provides so many options as making teaching interesting and also making teaching more productive in terms of improvements. Technology is one of the most significant drivers of both social and linguistic change. Graddol: (1997:16) states that" technology lies at the heart of the globalization process; affecting education work and culture. The use of English language has increased rapidly after 1960.

D. The Growth of English Teaching through Technology

With the rapid development of science and technology, the emerging and developing of multimedia technology and its application to teaching, featuring audio, visual, animation effects comes into full play in teaching and sets a favorable platform for reform and exploration on English teaching model in the new era. It's proved that multimedia technology plays a positive role in promoting activities and initiatives of student and teaching effect in English class. Technological innovations have gone hand – in hand with the growth of English and are changing the way in which we communicate. It is fair to assert that the growth of the internet has facilitated the growth of the English language and that this has occurred at a time when computers are no longer the exclusive domains of the dedicated few, but rather available to many. With this there has been a very significant proliferation of literature regarding the use of technology in teaching. Mostly these writings unequivocally accept technology as the most essential part in teaching. In a sense, a tendency to emphasize on inevitable role of technology in pedagogy to the extent of obliterating human part of teacher by technology part has been very

dominant. And as a result if we neglect or ignore technological developments they will continue and perhaps we will never be able to catch up, irrespective of our discipline or branch. For this reason it is important for language teachers to be aware of the latest and best equipment and to have a full knowledge of what is available in any given situation.

Teachers can use Multimedia Technology to give more colorful, stimulating lectures (new Horizons). There are many techniques applicable in various degrees to language learning situation. Some are useful for testing and distance education, and some for teaching any subjects. The teaching principle should be to appreciate new technologies in the areas and functions where they provide something decisively new useful and never let machines takeover the role of the teacher or limit functions where more traditional ways are superior. There are various reasons why all learners and teachers must know how to make use of the new technology. Here we also need to emphasize that the new technologies develop and disseminate so quickly that we cannot avoid their attraction and influence in any form

Many of the studies have emphasized technology as a medium for enhancing classroom teaching. This study will incorporate similar concepts. In general, the term technology shall represent relatively new electronic media such as computers, video, and the associated hardware, networks, and software that enable them to function. This is what most people have in mind when they discuss the use of technology in schools (Mehlinger & Powers, 2002). Most teachers accept technology in the classroom as a combination of both traditional media such as OHP, slide, and videotape and new media including information and communication technology.

Focusing on the learning and teaching process, Bransford, Brown, and Cocking (2000) states the roles of technology in five ways:

- being able to bring the real-world experiences into the classroom.
- providing scaffolding that allows learners to participate in complex cognitive tasks.
- increasing opportunities to receive sophisticated and individualized feedback.
- building communities of interaction between teachers, students, parents, and other interested.
- expanding opportunities for teacher development.

In addition, Sandholtz (1997) states some impacts of technology on students achievement: (1) mastering fundamental skills (2) becoming proficient users of technology (3) preparing students with 21st century skills (3) motivating students to higher level of achievement.

From above statement, we can see how important the roles and contribution of technology in term of teaching and learning process. This fact supported the writer in conducting this research.

E. Attitudes Toward Technology

Overall, teachers appear to have a positive, but cautious view of technology in general and of technology use in the classroom. Two general trends emerged in the review of literature. Specifically, prior experience with technology is significantly correlated with positive attitudes of teachers and that teachers' specialty or field of study correlates with attitudes toward technology. Two trends were also found when teachers were asked about using technology in the teaching and learning process. First, teachers sense that technology use brings about a paradigm shift in the classroom which is creating tension for the teacher who views the shift at odds with broader educational paradigms. Second, teachers view training as a critical aspect in the adoption of technology in the classroom.

Wellinsky (2005) suggest that teacher should not think, "aha! I will assign a research paper and require students to use internet to obtain information. " rather, teachers should assign a research paper and take for granted that students will use computers in a veriety of ways to complete the assignment. This approach mirrors the technology-rich work environment in which many students will find themselves after graduation.

Early in attitude study, researchers evaluated aspects such as teachers' age, gender and prior experience as indicators of positive attitudes toward technology (e.g., see Loyd 1984; Pelgrum 1991; Kay 1993). Since these early days, teachers' general attitudes toward technology have evolved. Now, two trends remain which appear to have an influence on teachers' attitudes. First, prior experience with technology is still a strong indicator of teachers' positive attitudes toward technology. A new trend has also emerged in which a teachers' field of study is correlated with his/her attitudes toward technology. Both trends are discussed in detail below.

a. Prior Experience

By far, the most prevalent general finding is that prior experience with technology makes a positive impact on teachers' attitudes. For example, Van Braak, Tondeur and Valcke (2004) noted this specific finding using Loyd and Gressard's (1984) Computer Attitude Scale which was adapted for their survey of over four hundred fifty teachers in Belguim. The authors also

used another more specific instrument to measure teachers' attitudes toward using technology in the classroom and then applied path modeling to the results. They found that past experience and favorable attitudes, which were closely correlated, were strong indicators of classroom use of technology. Another significant factor in classroom use was technological innovativeness, which was strongly entangled with experience and attitudes. Technological innovativeness can be viewed in light of the paradigm shift that teachers perceive when introducing technology into the classroom. This topic is discussed in more detail below. Additionally, Tsitouridou and Vryzas (2004) studied two hundred seventy-eight early childhood teachers in Greece using an open ended questionnaire. Based on their literature review, the authors noted that teachers' attitudes are far more positive when they have previous experience with technology (Loyd & Gressard 1986 as cited in Tsitouridou 2004) and that themore teachers use technology the more confident they became integrating it into their classrooms (Christensen 1998 as cited in Tsitouridou 2004). Indeed, their study found that teachers who have extensive prior experience are more positive and enthusiastic about technology and more easily recognize the educational benefits. Conversely, they found that teachers without prior technology experience have negative attitudes about the computer in general and about technology's effect on young children's intellectual and emotional development. Finally, Sharpe (2004b) surveyed over one thousand teachers in Moscow schools finding similar results. Specifically, among teachers who use technology, seventy-seven percent view it positively and claim it can be effectively used in school. Among teachers who do not use technology, only thirty-eight percent find pedagogical value. Interestingly, Sharpe also noted that only a very small percentage of teachers prefer to interact with a computer in their free time. Specifically, less than four percent of surveyed teachers noted the desire to interact with technology, whereas over twenty-five percent of students at the time chose interacting with a computer as their favorite free time activity. Prior experience is also a trend identified for students and discussed below. Of interest here is the apparent generation gap between teachers' and students' time interacting with the computer. In other words, if significantly fewer teachers are obtaining prior experience with computers because they do not prefer to interact with the computer, as a whole their attitudes toward technology will not be as positive as students' attitudes. This gap could clearly create issues in the classroom if the number of students who desire and even expect to use technology in their

learning grows faster than the number of teachers who are willing to use technology in the classroom.

b. Teachers' Area of Specialty

Teachers of technical topics tend to have more favorable attitudes toward technology in general, and toward integrating technology into learning. Sharpe (2004b) noted that most of the teachers who enjoyed interacting with the computer were information science specialty teachers. Other teachers who enjoyed interacting with the computer taught similar technical topics such as chemistry, math and physics. Additionally, Hirschbuhl and Faseyitan (1994) surveyed over two hundred fifty post-secondary professors and found that the 'technical orientation' of the professor's specialty, along with other factors such as computer self-efficacy and general computer attitudes, predicted technology use. Further, Aldhafeeri, Almulla and Alraqas (2006) surveyed almost five hundred elementary, intermediate and secondary teachers in Kuwait to solicit their attitudes about the elearning system in their country. The intermediate and secondary teachers held significantly different attitudes toward the impact of e-learning in Kuwait. While the authors did not specifically note the teachers' area of specialty, clearly elementary teachers must be more generalists and thus few would be considered to affiliate purely with technical topics.

Based on the above explanation, a teacher should use the potency in their previous experience and the teacher should know the special of their competency.

F. Attitudes toward Teaching with Technology

Two related trends emerged when teachers were asked their attitudes about using technology in the classroom. First, teachers view teaching with technology as a paradigm shift in the structure and routine of the classroom. Second, teachers see a need for training that includes the technical aspects of technology use, but also moves beyond that to the pedagogical aspects of integrating technology into their teaching.

a. Paradigm Shift

Teachers appear to be struggling with the best ways to integrate technology into teaching and learning. The literature indicates that teachers sense a paradigm shift in teaching with technology, but reveal some hesitation in embracing the change. Teachers understand that using technology for learning changes their teaching methods (Rice & Miller 2001 as cited in Brown 2004). Additionally, Sharpe (2004b) and Tsitouridou and Vryzas (2004) found that teachers view

technology adoption as an important strategy for improving education. However, change is slow and messages are mixed. Zhao, Tan and Mishra (2001) state that educational technology has long focused on assisting teachers, not learners. In fact, they posit that teachers are taught that technology is a tool to help teachers teach, which focuses more on transmitting and communicating messages through presentation software rather than allowing learners to construct knowledge.

In fact, in an early study of teachers' attitudes by one of the pioneers in the field, Kay (1993) surveyed almost six hundred fifty preservice teachers in Canada using his tested and validated Computer Attitude Measure. He found that preservice teachers believed that computers would help them organize their own work. These preservice teachers believed that computers would motivate students, but they did not necessarily view computers as 'natural' or believe computers would help students work in collaborative groups. Further, these preservice teachers believed they would use word processing software with students, but were least likely to use graphics software. These results indicate that preservice teachers at that time were beginning to see some benefits to technology, but were not ready to change their teaching paradigms significantly.

Later, Wang (2002) sought to examine preservice teachers' attitudes toward the teachers' role in classrooms with technology. Seventy-eight preservice teachers were surveyed at a postsecondary school in Guam. When these teachers were placed in a classroom without technology, they perceived their role as teacher-centered. However, when placed in a classroom with technology, they perceived their role as neither teacher-centered nor student-centered. Therefore, Wang concluded that technology affected pre-service teachers' perception of a teachers' role in the classroom. Teachers' views had clearly evolved from Kay's (1993) study.

Further, Kynigos and Argyris (2004) observed and interviewed twelve teachers in a Greek primary school who had been using innovative computer-based mathematics activities for eight years prior to the study. The purpose of the study was to compare these teachers' stated beliefs about innovative computer-based activities with their 'beliefs-in-practice' in those settings. In this school, the school headmaster encouraged innovation and asked teachers to act as a 'catalyst' or 'helper' rather than an instructor. In fact, the researchers found that the teachers in the study most frequently adopted the role of facilitating students' investigations. However, even in this supportive environment, these teachers still reverted to supervisory and directive roles, particularly when coming to the end of a session. One of the main themes of the research was

that teachers felt a tension between allowing students to investigate and the need to create a tangible result from their activity within a particular timeframe. Thus, even in schools in which innovative technology-based activities are encouraged and expected, teachers still may have difficulty balancing the students' need for discovery with the broader national curriculum and educational paradigm. In fact, Hall and Higgins (2005) found similar results and recommended a more flexible curriculum and a re-thinking of teacher and student roles in the classroom to encourage teachers to adopt a more student-centered approach.

Finally, Potgieter (2004) solicited teachers' attitudes on technology use in South Africa's educational system. Questionnaires were given to teachers after they attended a brief introductory educational technology workshop. These teachers also alluded to a tension between the outcomes that are expected of the students and the improvisation that teachers deem appropriate when using technology in the classroom. These studies taken together demonstrate that teachers may show positive attitudes toward technology, but shifting the paradigm of teachers will take a broader effort that includes addressing curriculum issues and product focused learning outcomes.

Based on the above explanation, a teacher should struggle hard to improve their quality of teaching by using technology in the classrooms.

b. Training

Clearly, research has shown that computer training positively impacts teachers' attitudes toward technology (Shashaani 1997 as cited in Van Braak 2004). Lee and Tsai (2005) explored secondary teachers' and students' attitudes toward constructivist Internet-based learning environments. They administered a questionnaire to seventy-eight teachers across Taiwan. Interestingly, the teachers rated ease of use as their most significant factor in integrating the constructivist Internet-based learning environments. This ease of use factor was rated above other factors of the technology-based learning environment such as reflective thinking, critical judgment and epistemological awareness. This study highlights the fact that teachers, while potentially positive about using technology, are still uncomfortable with introducing it into their classrooms.

Tsitouridou and Vryzas (2004) found that the majority of teachers believe that using computers in the classroom improves their status, but fewer wish to make technology training for teachers compulsory. While the authors saw this as a contradiction and took the view that the teachers were not willing to commit to using technology in the classroom, it is perhaps more of

an indictment of the type of training offered to teachers. In another example, Sharpe (2004b) found that teachers are more likely to focus on external obstacles to integration, such as hardware accessibility and inadequate materials rather than focusing on internal obstacles, such as adequate technical knowledge. Again, the researcher is critical of the teacher rather than the type of training that is offered to the teacher.

Brown, Benson and Uhde (2004) studied three post-secondary teachers who used technology in their classroom to differing degrees. This article was designed to illuminate some of the issues teachers face when using technology for learning. On the subject of training, one professor that was profiled held a certificate in instructional technology, but did not view herself as an expert. Additionally, her fellow teachers did not perceive her as an expert either even though they were aware of the certification. This point highlights the trend in the literature that while teachers desire technology training, teachers may perceive the training they receive as insufficient for quality technology integration into the classroom.

Errington (2004) addressed teacher beliefs and technology training, stating that thetechnical skills approach is inadequate to address teachers' needs. Instead, he advocates anchoring technology training in the context of teachers' beliefs about teaching, learning and the roles of both teachers and learners in that process. In Errington's view, teachers should begin by evaluating their own views of 'worthwhile, possible and relevant' teaching and learning. Further, teachers should detail their notions of adequate technical support for their endeavors. Only after the teacher is well informed on his/her own views of teaching and learning should technical options enter the discussion. In fact, the teacher's individual views on teaching and learning will likely dictate the type of technical training that is appropriate for his/her own needs and desires, making the training relevant and timely. Interestingly, Errington's view of training would not only address the teachers' perceived frustrations with technology training, it could also allow teachers to work through their paradigm shift issues addressed in the previous section. This dual purpose makes the extra time this approach might take worthwhile and in fact perhaps necessary.

Related to the explanation above, the attitude of teacher should be positive. The teacher should change their paradigm shift and follow some training.

F. Conclusion

Technology is very important for teachers in teaching English. The use of technology as media in classroom is very helpful. Furthermore, media technology can increase the students'

interesting in learning process. The attitude of teacher should be positive. The teacher should change their paradigm shift and follow some training

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