The Role of Technology in EFL Classroom: The Case of Smart Board

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ABSTRACT

The present study aimed to expand on the research of the smart board technology. It specifically attempted to investigate the perspectives of teachers and students with regards to using smart boards in EFL instruction. In this study, previous literature related to the use of technology in language instruction is presented first. Subsequently, the advantages of smart boards as an instructional tool are mentioned. Finally, the significant role of teacher and student attitudes in successful integration of any technological innovation particularly the smart board is discussed. Furthermore, the opportunities provided by the smart board technology for EFL teachers are pinpointed. The study reveals that EFL teachers hold positive attitudes towards the smart board. The smart board is specifically useful for English language course since it provides teachers with an opportunity to use authentic and visually attractive materials for their students. Positive attitudes are reported by students toward using the smart board. The smart board doesn't confuse students; however, they don't have enough skills to use it. By taking the attitudes and challenges of students into consideration, teachers can enhance their instruction by developing their technology skills and positive attitudes.

KEYWORDS: attitude, smart board, EFL learners

INTRODUCTION

Learning a new language is a difficult task especially when it is happening in a foreign language context such as Iran since these is little authentic communication. Students trying to learn English as a foreign language need extra language support. For this reason various tools such as technological resources can be applied. There has been a growing interest in using technology in the field of education. Needless to say, language teaching is among the fields that are affected by the new technological developments (Bekleyenn & Yilmaz, 2011).

The latest advances in computer and internet technology have led to the replacement of traditional approaches to language teaching and learning by new and innovative approaches. Because of computers and internet sources, an array of new tools and techniques has been developed in language teaching and learning. By using these tools, the teacher-centered and text-bound classrooms can be changed into student-focused and interactive knowledge environments (The UNESCO World Education, 2005). According to Chandra, , Theng, Lwin, and Foo (2009), the integration of technology in the classroom can be beneficial, because "the use of virtual environments for collaboration and learning can result in unprecedented flow of ideas, leading to higher levels of productivity" (p. 2). Technology can play a significant part in the development of the four skills: speaking, listening, reading, and writing. Moreover, as Sylvester and Greenridge (2009) pointed out, technology can improve the students' motivation.

Whether technology is beneficial is dependent upon the knowledge and competency level of teachers (Sinclair, 2009). For successful integration of technology, teachers must be enthusiastic to change their belief, philosophy and role in the classroom (Windschitl & Sahl, 2002). Additionally, the role of students should not be neglected in the successful integration of technology. Technology enables them to take a more active role in their own learning. In order for this to occur, technology should be used by students rather than teachers (Herrington & Kervin, 2007). By integrating technology into the classroom, new opportunities are provided for student learning through multimedia or interactive resources. The integration of technology into the classroom can enable students to generate activities that are engaging, useful, and enlightening. Recent studies have shown an explosion of interest in using technology for language teaching and learning.

Smart board is one of the technologies that can transform classroom activities and teachers' and students' role. Whereas computers are designed for individual use, smart boards can be used for whole-class. This technology

is designed to develop active engagement in classes. Students combine their cognitive and physical abilities to interact with smart board technology. As Austin (2003) noted, smart boards are flexible and versatile instructional tools which can be used across different ages, groups and settings. Boyle (2002) argued that the touch-sensitive nature of smart boards allows teachers to present and deliver multimedia resources more efficiently and professionally. Becta (2003) recognized interactivity as one of the main advantages of smart boards. Similarly Levy (2002) pointed out that smart boards can enhance teacher–student interaction. Moreover, as Beeland (2002) asserted, smart boards result in improved attention and behavior.

As an extension to the study of smart boards, the present study aimed to examine a new aspect. The advantages of smart boards have been mentioned by many studies. What actually matters is how it is used in actual classroom situations by teachers and students. Thus, in this study attempts have been made to investigate the attitudes teachers and students hold toward the use of smart boards.

Both teachers and learners can benefit from the findings of this research.

According to Gray (2001), the successful adoption of technology in classrooms depends on the provision of training and implementation by school administrators and curriculum developers. Accordingly, the findings of this study will be helpful for school administrators and curriculum designers.

The present study endeavors to investigate the perspectives of teachers and students with regards to using smart boards in EFL instruction. In this study, previous literature related to the use of technology in language instruction is presented first. Subsequently, the advantages of smart boards as an instructional tool are mentioned. Finally, the significant role of teacher and student attitudes in successful integration of any technological innovation particularly the smart board is discussed.

TECHNOLOGY RESOURCES IN LANGUAGE LEARNING

Recently, technology applications for education have considerably increased. In light of the practical advantages of technology for teachers and learners, it has achieved great popularity among EFL teachers. As Singhal (1997) claimed, there exists a close relationship between technology and English language education. The explosion of interest in using computers in the arena of foreign language instruction began in the 1960s. However, it wasn't widespread at that time and it didn't gain a considerable place in teaching and learning of EFL. In the early years, using computer was limited to presenting multiple-choice tests and gap-filling exercises. Technology has undergone drastic changes since then which in turn resulted in enormous modifications in EFL instruction.

By offering multimedia facilities with video and sound, computer programs can familiarize students familiar with the target culture as well. The effect of computer programs on enhancing EFL learners' speaking proficiency and pronunciation goes without saying. Social networking websites such as Facebook, Skype, Twitter and etc allow audio and video calls even with native speakers in friendly environments (Payne & Whitney, 2002). Similar effective outcomes were reported by scholars such as Cunningham (2000) and Kasper (2000) regarding the usefulness of technology resources in improving learners' writing proficiency.

As Alsied and Pathan (2013) pointed out, technology also transforms the teachers' role in classes. There are also some learning packages which can assist teachers in creating lesson plans. Opportunities are provided for teachers to make possible changes in their strategies and methodologies by using different software programs. Technology also allows teachers to construct suitable classroom activities and to involve their students in the teaching process.

SMART BOARDS

Recently, attempts have been made by many schools and educational institutions to provide better learning opportunities for learners. As a result of their efforts, the educational environments have been equipped with the most recent technology. Technology assisted instruction has many faces in classrooms. The smart board is among the technology sources which proved to be effective. Yanez and Coyle (2011) described smart boards as an alternative technology source which unites all existing teaching aids including blackboard, white board, TV, projector, CD player, and computer. Torff and Tirotta (2010) also asserted that smart boards add interactivity to existing technology sources. Smart board is a large touch-sensitive monitor which is connected to a computer and a projector. The touch screen can be controlled by using fingers, pens or other devices (Gruber, 2011). An image is displayed by the projector from the computer's screen onto the board (Wallace, 2007).

Effective use of smart boards is advantageous for both teachers and learners. By using smart boards teachers are able to enhance involvement, interaction, and cooperation among their students (Smith, Higgins, Wall, & Miller, 2005). As AL-Qirim and associates (2010) claimed, by using the software and hardware features of smart boards teachers can enrich and facilitate their teaching process. Teachers are no longer dependent on the desktop or

monitor. Teck (2013) concluded that the touch screen feature of smart boards makes them efficient since teachers can stand up during their instruction and touch the smart board screen rather than sitting, clicking and typing.

According to Biro (2011) the new possibilities created by smart boards necessitate teachers to develop new pedagogic approaches to teach with technology. He further claimed that teacher roles can be transformed into constructivist ones by utilizing smart boards. In his viewpoint, constructivist teachers need to collaborate with students and guide them in discovering knowledge rather than transmitting information to them.

Students can also benefit from using smart boards in many ways. Glover, Miller, Averis, and Door (2007) cited the benefits of the smart board for scaffolding different learning styles through which many diversity issues can be dealt with. One of the benefits of the smart board is that through using the smart board, students can interact with tasks and exercises (Celik, 2012). In his study, Beeland (2002) concluded that through visual presentation, the learner engagement with the lesson was improved. Biro (2011) has also found the learners' curiosity, motivation and interest in learning materials are promoted.

Although research emphasizes the positive impact of using smart boards on learning and instruction, it is necessary to examine how they are being used in classes. In order to provide a better understanding of teachers' and students' use of smart boards, several factors need to be taken into consideration including the teachers' and the students' attitudes.

STUDENT ATTITUDES TOWARDS TECHNOLOGY USE

According to Gardner (1985) attitude is "an evaluative reaction to some referent or attitude object, inferred on the basis of individual beliefs or opinions about referent" (p. 9). In Bohner and Dickel's (2011) definition, attitude is described as the person's belief or thought toward an object, person, or event. Eagly and Chaiken (2011) asserted that feelings and emotions lead to the formation of attitudes. As they further argued, one can change his/her attitudes based on implicit and explicit processes. In explicit attitudes conscious processes are involved while implicit attitudes are unconsciously controlled. Through fast-learning systems and some degree of information explicit attitudes can change. On the other hand, implicit attitudes change more slowly through slow-learning processes and sufficient information.

Victori and Lockhart (1995, p. 224) defined language attitudes as "meta-cognitive knowledge" which consists of the general presupposition of students about themselves as learners, the nature of language learning and teaching and factors that affect their language learning. Likewise, Dittmar (1976) asserted that attitude is cognitive in nature and constitutes the individual's belief system. Sarnoff (1970) also claimed that attitudes determine the individual's favorable or unfavorable reaction to a class of objects.

As Hosseini and Pourmandnia (2013) asserted, the most certain way to better understand what is happening on the minds of language learners is to study their beliefs. As soon as the students step in a language classroom, they bring their beliefs, attitudes, and language styles with them. In other words, what they think about the target language, the target language speakers and culture determines their success.

Tremendous amount of research have been conducted on the relationship between the attitude of students´ and their language success. The evidence provided by research studies suggests that attitudes play a significant role in students' language achievement and their learning outcomes (Schommer, 1990; Weinert & Kluwe, 1987). In his study, Truitt (1995) concluded that students´ beliefs and attitudes towards language learning are formed by their culture and previous experiences. Brown (2000) pointed out that positive attitudes bring about success while negative attitudes lead to reduced motivation. As he further claimed, the negative attitudes can be transformed to positive ones by exposure to reality.

The attitudes students hold toward technology show their willingness to use it as a part of their learning process (Sanders & Morrison-Shetlar, 2001). Pelgrum and Plomp (1996) investigated computer use in school and students' attitudes toward computers. The results indicated that the majority of students believed computer and technology were relevant. The students' motivation can also determine their attitudes toward a task (Oxford & Shearin, 1994). Anxiety in foreign language learning situations is another factor which can change the learners' positive attitudes into negative ones.

Hall and Higgins (2005) investigated the students' attitudes toward using the smart board. One-third of the students reported issues with their teachers' skills while using the smart board. They also noted that not all the lessons had given them opportunity to interact with the smart board. Also, the students had negative attitudes toward the smart board because it caused delays and disruptions.

From the evidence provided by previous research studies, it can be concluded that the teachers' degree of technical and pedagogical training can influence the students' attitudes. Alghazo's (2006) characterized technical issues such as low internet speed as factors which can cause frustration in students. Therefore, the educators should be trained in using technology.

TEACHERS ATTITUDES TOWARDS TECHNOLOGY USE

An attitude can be viewed from various dimensions and can also be measured in many ways. Tremendous amount of research have been conducted on teacher thinking. Pajares (1992) argued that by examining the teachers' beliefs and attitudes, their behaviors can be predicted. Greeno (1989) mentioned that the epistemological beliefs of teachers which are implicit in nature can be investigated. In other words, the teachers' thoughts and beliefs about how learning occurs can affect how they see themselves and their learners which in turn can affect their teaching. Richardson (1996) characterized the interactive relationship between beliefs and actions. In other words, beliefs drive actions. Likewise, Wenzlaff (1998) claimed that the attitude of teachers is among the most important factors that can determine the formal and informal syllabus in classes.

In Levin and Wadmany's (2006) point of view, the attitudes of teachers might support or hinder the successful implementation of technology in classes. According to Ertmer and Ottenbreit-Leftwich (2013), the teachers' attitudes toward technology can affect the students' learning positively or negatively. Zhang and Espinoza (1998) argued that the teachers' positive attitude towards technology is among the necessities which determine the effective incorporation of technology in classes.

The resistance of teachers to use technology is affected by many factors. In early researcher studies conducted by researchers such as Kay (1993) and Pelgrum & Plomp (1996), features such as age, prior experience and gender were believed to affect the teachers' attitudes. With respect to the implementation of technology, Hope (1997) asserted that teachers encounter two issues: (a) the psychological aspect of change and (b) learning to use technology. Park (2003) mentioned that since teachers are hesitant about using technology, they might not allocate sufficient time and effort into it. Similarly, Allsopp et al. (2012) noted that fear of unknown is one of the factors that might affect the teachers' resistant toward technology. Ertmer (1999) characterised internal and external barriers as factors which might hinder the effective incorporation of technology. Internal barriers refer to the socio-cognitive aspect such as the teachers' beliefs and perceptions towards teaching, technology use and their resistance to change. On the other hand, external barriers are concerned with the environmental limitations including lack of resources, adequate training and administrative support. Ertmer (1999) further said that even when the external barriers are completely absent, internal barriers still exist. In order to handle them, some strategies are recommended which are as follows:

1. During technology training programs, there should be an equal on pedagogical issues as well as technological issues;
2. During training, for better teaching and learning through technology a broader vision of technology should be provided;
3. During the integration process, guidance and assistance should be supplied by other coworkers;
4. And teachers should be given opportunities to discuss the technology use with their coworkers.

According to Ely (1990), since technology provides an array of opportunities for a more effective educational setting, teachers need to change their attitudes. Akbaba and Kurubacak (1998) pointed out teachers who have not experienced technology-assisted teaching are more anxious toward using it. It is however possible to persuade teachers to change their attitudes towards technology use by providing opportunities for them to observe its effectiveness (Ottenbreit-Leftwich, 2007). Similarly, Lam (2000) stated that teachers need to observe the advantages of technology before utilizing it.

McMeniman and Evans (1998) claimed that it is possible for teachers to change their beliefs and attitudes when "presented with evidence that shows positive effects of the new teaching method on quality of learning outcomes" and "develop expertise in the new method" (p. 1). Another way to persuade teachers to develop positive attitudes toward technology is by providing training sessions (Clark, 2000). Similarly, Jones (2001) stated that teachers can be convinced to use technology in their classes with sufficient time and training. With respect to the role of training, Kassen and Higgins (1997) declared that:

> *"technology training is most effective when it (1) offers teachers ample time to practice and experiment with technology and to share ideas; (2) provides sustained support rather than a one-shot training session; and (3) receives institutional commitment, thus clearly demonstrating to teachers that technology is not just another bandwagon "(p. 265).*

Isman, Abanmy, Hussein, and Al Saadany (2012) characterized the teachers' perception as the most crucial factor in enhancing the teaching experience. Better learning will occur if the teacher perceives the smart board as an effective tool in promoting the teaching and learning process (Essig, 2011). Slay et al. (2008) pointed out that more studies revealed teachers' positive attitudes toward smart boards. Still, there are various studies in which the teachers' attitudes negatively affected the effectiveness of smart boards. As a result, many studies have focused on teachers' experience and expertise with smart boards (Levy, 2002; Smith et al., 2005). Teachers who are

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not experienced enough in using the smart board utilize it as a traditional board while experienced teachers adopt it as an interactive source to construct meaning.

In order to provide an effective instruction, it is important for teachers to acknowledge the pedagogical implications of smart boards before adopting them (Türel, 2010). Although the positive effects on smart boards have been emphasized by research studies, the excessive use of smart boards as a presentation instrument might have a negative effect on the students' motivation and attention (Hall & Higgins, 2005). Therefore, to effectively integrate the smart board in classes, teachers should be provided with training and support. In his study, Teck (2013) emphasized the importance of providing technical support for teachers. Similarly, BECTA (2004) mentioned that before integrating the smart board in classes teachers should be ensured to be provided with technical assistance when needed. BECTA (2004) also stressed the provision of pedagogical as well as operational training sessions for teachers.

In a similar study, Sharpe (2004) found similar results. Seventy seven percent of teachers who had prior experience with technology showed positive attitudes toward it. This number was thirty eight percent among those who didn't have prior experience with it. The results also suggested that only less than four percent of teachers were interested in using technology in their free time.

Eugene (2006) explored the impact of teachers' beliefs on their technology use in classes. Questionnaire and observation were used as research instruments. The findings revealed that teachers' practice with technology in classes were different from what they reported in the questionnaires.

Zanguyi (2011) investigated the attitudes of Iranian teachers towards the technology integration in language instruction. The teachers' gender and educational level were taken into consideration while analyzing the data. Teachers demonstrated positive attitudes towards using technology in instruction. However, there was no significant relationship between the participants' gender and educational level and their attitudes.

Enayati, Modanloo, and Mir Kazemi, (2012) investigated the same issue in the context of Iran. The results indicated that Iranian teachers' attitudes toward technology were positive. They were also familiar with the benefits of integrating it in their classes. The researchers recommended that teachers should continuously upgrade their knowledge and skills.

Kennewell (2001) found that through using the smart board, the students' motivation and learning gains are improved. Levy (2002) also reported that both teachers and learners believed the smart board has a significant role in drawing the students' attention, motivating them and enhancing whole-class learning. Kitson, Kearney, and Fletcher (2005) characterized multimedia and multi-sensory presentation as the factors which create motivation. The results of Beeland's (2002) study indicated the positive impact of the smart board on student participation and involvement in the classroom during instruction.

Latham (2002) investigated the impact of the smart board on the quality of teaching and learning. The results revealed that the use of the smart board led all students to be actively involved in teaching and learning. Another finding was that the smart board allows teachers to organize and control interactive teaching and learning with higher concentration and lower distractions.

Cox, Webb, Abbott, Blakeley, Beauchamp, and Rhodes (2003) examined the increased potential for teachers to focus on student responses while using the smart board. The findings revealed that the smart board provides opportunities for teachers to develop an interactive teaching and to better recognize their students' needs. They also concluded that students are better able to learn through cooperation with each other.

Data gathered from the research by conducted by Pelgrum and Law (2003) and Zain and Murugaiah (2004) revealed that in smart schools teachers can ask students to find the answers to their questions through web or computer resources and discuss their answers with their classmates instead of answering the questions themselves. Smart schools can also introduce the trustworthy web resources to students. Averis, Glover, and Miller (2004) concentrated on student attitudes and attention to the use of the smart board during instruction. They found that in lessons where the teacher didn't use the smart board, the students lost their interest.

Amolo and Dees (2007) investigated the use of smart boards in teaching elementary social studies. The results revealed that student's engagement in learning process and their learning of context material were increased when smart boards were used to deliver content. In their study Hodge and Anderson (2007) highlighted some of the positive and negative aspects to using the smart boards in the classroom setting. They characterized students' increased motivation and attention as positive effects of smart boards. However, both pointed out that it is important that teachers be trained on how to use smart boards effectively.

Matthews-Aydinli and Elaziz (2010) examined the attitudes of Turkish teachers toward smart board use. Teachers found smart boards useful and demonstrated positive attitudes towards using them. On their study on the effectiveness of smart boards for students, Duran and Cruz (2011) found that learners demonstrated more

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motivation and enjoyment in lessons which were presented by the smart board. Jwaifell and Gasaymeh (2013) who investigated the same issue in the Jordanian context concluded that the teachers' perceptions in four main areas affected their degree of use: relative advantages, compatibility, simplicity, and observability. Based on the results of the study, they recommended that to achieve maximum results, training workshops should be presented.

In their research, Mahmudi, Nalchigar, and Ebrahimi (2008) explored the use of smart boards in Iranian smart schools. They characterized lack of necessary rules and regulations in the Ministry of Education and the traditional structure of Iranian schools as the main challenges of smart schools. In a similar study in Malaysian smart schools, Wan Ali et al. (2009) concluded that time, course content and technical breakdown were among the main problems teachers faced.

Bajoolvand, Mahmoodi, and Vafaeeseresht (2014) explored the effect of using smart boards on the attitude of students toward lesson instruction. During the treatment, thirty students were taught by the use of smart board. After six months of instruction, they were asked to complete a questionnaire. The results revealed positive attitudes of students toward smart board.

Shams and Ketabi (2015) investigated the Iranian teachers' attitude toward using smart boards with respect to usability, frequency, instructional and motivational effects. To collect data, they distributed a questionnaire among 174 EFL teachers. They found that teachers had positive attitudes towards using smart boards. Moreover, the teachers become more competent in using smart boards as they use it more frequently.

Conflict of interest
The authors declare no conflict of interest.

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