

Teachers' Attitudes toward Using Interactive Whiteboards in English Language Classrooms

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Abstract

Educational technology plays an increasingly important role in the teaching and learning process. Successful integration is the goal of any new educational technology. The interactive whiteboard (IWB) can be effectively used by teachers to enhance the effectiveness of their lessons. This study explored the attitudes and insights of Saudi female teachers regarding the use of IWBs when teaching English as a foreign language (EFL). It also investigated possible obstacles they may face during their use of this novel technology.

Data was collected by distributing questionnaires to forty three teachers at different girls' schools in Riyadh. The results indicated that participants in this study demonstrated positive attitudes toward using the IWB in the EFL classrooms. The results also showed that teachers consider IWBs to be useful devices for enhancing the teaching and learning process and for designing new instructional situations. IWB-based lessons were perceived to be more comfortable for teachers in teaching English. However, teachers stated that they faced some technical obstacles in their use of IWBs.

The current study recommended that EFL classes should be equipped with all supplicants of the IWBs. It also suggested that training is important for teachers to deal with the technological devices. EFL teachers need more training to learn how to resolve technical and system problems; they also need to understand how to use all the options offered by the IWBs.

Keywords: interactive whiteboard (IWB), attitudes, English as a foreign language (EFL), technology, integration

1. Introduction

The part played by traditional learning in the educational process and its importance for both the teachers and students cannot be denied. However, it seems unreasonable to deny the importance of using technology in teaching. Gruber (2011) argued that the successful integration of new technology is the goal of any educational technology. Previous research stated that many schools in the developed and developing countries have confidence in the capabilities of technology to improve educational processes (MoNE, 2010; Thomas & Schmid, 2010; Yang & Teng, 2014).

The interactive whiteboard (IWB) might be one of the methods that teachers can use to enhance the effectiveness of their lessons. The IWB is a large, touch-sensitive board that is connected to a digital projector and a computer. The projector displays an image from the screen of the computer onto the whiteboard (Wallace, 2007). The IWB enables teachers and students to write directly onto the board; this permits highlighting, labelling and editing the content. Interactive whiteboards are ideal for presentations since the presenter can run the application from the board. Interactive whiteboards are seen as combining all previously existing teaching aids such as chalkboard, white board, television, video, overhead projector, CD player, and computer (Yáñez and Coyle, 2011). The use of the IWB for instruction can serve as a catalyst for changing from traditional instruction to interactive and constructive methods. This technology could support teachers to use teaching methods in ways that are more contemporary, and utilize various media such as texts, voices, pictures and movies that facilitate more effective learning even during routine teaching practices.

Furthermore, IWB technology is becoming more and more widespread because it appears to provide teachers and students with opportunities to facilitate teaching and learning (Öz, 2014). Although there are many claimed

benefits for IWB technology, it falls upon the teachers to exploit the positive features of IWBs and integrate them into their current teaching methodologies. Isman, Abanmy, Barakat, & Al Saadany (2012) argued that the most critical factor in improving teaching experience is the perception of the teacher. If the teacher sees that IWB can improve teaching and learning process, then there will be better learning rewards (Essig, 2011). Moreover, effective integration can be achieved once it is understood how much training is needed, how open teachers are to the idea of IWB and how much support can be expected from administrators. The previously mentioned concerns were explored in the course of the current study.

1.1 Statement of the Problem

Innovative technologies are increasingly introduced in schools and teachers are anticipated to invest them appropriately in their teaching with the expectation it will sustain their students learning. Teachers' perceptions regarding the new introduced technology clearly affect their employment. Consequently, the current study tackled the issue of teachers' perceptions on interactive whiteboard as an innovative teaching tool.

The IWB technology is rather a novel phenomenon as it was initially designed for commercial purposes (DiGregorio & Sobel-Lojeski, 2010), and gradually employed in language classrooms all over the world. Similarly, in Saudi Arabia, IWB technology is novel, and schools are increasingly implementing it for language teaching purposes. The interactive whiteboard is becoming one of the rapidly adopted educational technologies everywhere. However, while moving quickly to integrate innovative technologies, sometimes decision is made without considering teachers' perceptions. This study attempted to discover in what ways teachers' practices and perceptions changed when an IWB began to be incorporated in their classrooms, and whether they express positive attitudes toward their innovative uses, given that often "teachers are likely to use an IWB as an extension of non-digital whiteboard" (Armstrong, Barnes, Sutherland, Curran, Mills, & Thompson, 2005). Thus, there is a real need for an investigation related to the attitudes and practices of teachers regarding the IWB on language learning and teaching in Saudi Arabia.

Furthermore, the best employment of interactive whiteboard calls for full awareness of the practices and perceptions regarding teachers' employment of IWB technology (Isman et al., 2012). The present study intended to shed light on teachers' perceptions and practices of the use of interactive whiteboards in Saudi EFL classrooms. There are very few studies being conducted to explore teachers' attitudes toward using the interactive whiteboard in the Saudi context (Bakadam & Asiri, 2012; Isman et al., 2012). The study aimed to explore EFL female teachers' attitudes toward the use of IWB, the reality of this use, and the problems that might face them. A clearer understanding of the attitudes of EFL teachers toward IWBs is needed in order to provide a basis for their pedagogical use.

1.2 Research Questions

The current study was conducted to answer the following questions:

- What are the attitudes of EFL Saudi female teachers toward the use of interactive whiteboards in Saudi secondary schools?
- How are interactive whiteboards used in EFL classrooms in Saudi schools?
- What are the obstacles Saudi female teachers face while using interactive whiteboards?

1.3 Significance of the Study

Several studies have examined the role played by IWBs in schools worldwide. These studies have concentrated on different sides of the technology in educational settings including motivation, attitudes, pedagogical benefits, and technical issues related to the incorporation of IWB in classrooms (Wallace, 2007; Turel, & Johnson, 2012; Sweeney, 2013). However, after intensive research, the researcher found that there is little published research about IWBs in the Saudi context (Isman et al., 2012; Bakadam & Asiri, 2012). Therefore, the present study focused on the EFL teachers' attitudes towards the incorporation of interactive whiteboards in Saudi EFL classrooms with the purpose of exploring concerns related to the employment of such technologies in Saudi educational context, which might be comparable to other settings in the developing countries.

This study focused on the practices and perceptions of EFL teachers toward the use of the interactive whiteboard. The information provided by this research will be valuable to teachers and education coordinators seeking to identify beneficial tools and technologies for the teaching and learning of English. In addition, this study focused on the manner and method in which teachers used the IWB while teaching in EFL classrooms.

1.4 Purpose of the Study

Teachers are significant agents in facilitating the incorporation of the IWB as teaching tools in EFL classrooms

(Sweeney, 2013). The current study aimed to explore Saudi English as foreign language teachers' attitudes regarding the use of interactive whiteboards in EFL classroom. It further investigated their practices and obstacles they may face during the employment of IWB technology.

2. Literature Review

Recently, many different forms of technology have been used inside the classroom. From the mid-1990s, electronic interactive whiteboards have been used, and seen as good examples of new technologies adopted in the modern classroom (Beeland, 2002). These whiteboards, based on computer technologies seem to be replacing traditional black or white boards, which were once considered indispensable. At the heart of the IWB lies a touch screen smart board (Slay, Siebörger, & Hodgkinson-Williams, 2008), which students can use to experiment, solve, write and erase applications, such as visual experiments, visual animations and graphics.

2.1 *Interactive White Board as a Teaching Tool*

Teachers could implement interactive whiteboards for various reasons. These include retaining learners' attention, clarifying complex ideas, simplifying teaching process, and enhancing learners' interaction (Jang & Tsai, 2012). Teachers may employ IWB to present magnificent interactive multimedia in their teaching classes, utilizing various kinds of digital material with the touch of a finger (Isman et al., 2012). Higgins (2006) implied that the use of IWBs could encourage instruction, describing the boards as "pedagogical tools for the advancement of interactive instruction for the entire class". Similarly, Wallace (2007) suggested that IWBs allow more meaningful contact between learners and the content through simulation activities that are displayed in an accessible manner. The use of these boards may add a type of "theatrical tension" in the classroom, thereby creating a more attractive learning environment. When used properly as a presentation tool, the IWB suggests a dynamic, varied, multi-faceted and expressive type of instruction (Glover & Miller, 2001).

Previous research conveyed that the IWB could provide some recognizable assistance to learner's productive communication and thinking (Kershner, Mercer, Warwick, & Kleine, 2010). Via the use of IWBs, teachers can improve interactivity in the classroom since the touch screen feature permits learners to interact directly with teaching activities and tasks (Baran, 2010; Celik, 2012). IWBs can enhance the delivery of presentation as well (Shelly & Vermaat, 2010). The integration of interactive whiteboards in educational settings has shown that this technology can enhance learners' motivation and performance (Syh-Jong, 2010).

2.2 *Attitudes toward the Use of IWBs*

With regard to attitudes, various studies have found positive teachers' attitudes toward working with IWBs. Matthews-Aydinli and Elaziz (2010) conducted a study in order to explore the attitudes and opinions of EFL teachers in Turkey on the use of IWB technology. Findings indicated that teachers expressed positive attitudes towards the IWB technology. Arguing that the IWB was useful in language teaching, teachers were happy about the use of this technology. In the same line, the results of a study by Duran and Cruz (2011) showed that learners were more motivated and enjoyed lessons in which IWBs were employed as these lessons were more interesting, and exciting.

In the Jordanian context, Jwaifell and Gasaymeh (2013) examined the use of interactive whiteboards (IWBs) by English female teachers in Modern Systems School in Jordan. The study explored teachers' use of IWB and its features that affect their decisions. The researchers concluded that the extent of teachers' use of IWB is influenced by their perceptions of the four main aspects: Relative advantages, compatibility, simplicity, and observability. The regular use of IWB has shifted the teachers' methodologies of teaching from traditional ways to using dialogues, open sources, and group work. Jwaifell and Gasaymeh suggested paying more attention to training workshops concerning the best practices to integrate IWB into the educational process. Abuhmaid's (2014) explored teachers' perspectives on two main aspects of the integration of IWBs in four Jordanian private schools: teachers' perceptions of IWBs as teaching technology, and the existence of several backup factors to ensure better implementation of IWB. Findings indicated that the participating schools spent a lot of efforts and resources in integrating IWBs into their contexts; however, still some supporting factors for the efficient employment were ignored. Surprisingly, IWBs were found to make teachers' job "not easier" in terms of relieving teachers' workloads.

In Saudi context, Isman et al. (2012) discussed the attitudes of secondary school teachers toward the use of the interactive whiteboard in classrooms. The research used an interactive whiteboard attitude survey, observation skills cards using the IWB in the classroom and structured interviews with students. The findings emphasized the important role played by educational technology in the teaching and learning process. Bakadam and Asiri, (2012) investigated the opinions of intermediate teachers regarding the use of the interactive whiteboard (IWB). Results

showed that most teachers hold a belief that IWB could be used as an efficient tool to present teaching content and that it supports classroom interaction. Nonetheless, the findings indicated that most of teachers employ the IWB as an overhead projector and for internet research, but do not properly invest several other features of the IWB, which in turn could be justified as their limited knowledge of IWB technology. Similarly, the researcher suggested that teachers are in need for more training with the use of IWB.

The previously stated review presented the relevant literature about IWBs. WB technology offers many benefits to both students and teachers. The review revealed that researchers have identified teachers' attitudes toward using the interactive whiteboard in several contexts with very few studies being conducted in the Saudi context (Bakadam & Asiri, 2012; Isman et al., 2012). Unlike the study of Bakadam and Asiri (2012), the current study intended to explore different areas of the employment of IWB as it specifically explores the attitudes about IWB with English as foreign language female teachers. The present study aimed to explore EFL female teachers' attitudes toward the use of IWB, the reality of this use, and the problems that might face them. A clearer understanding of the attitudes of EFL teachers toward IWBs is needed in order to provide a basis for their pedagogical use.

3. Methodology

3.1 Participants

This study was conducted with a sample of 43 female English teachers teaching in different secondary schools in Riyadh, forty one of them hold the Bachelor degree in teaching English, and two of them had achieved the Master degree. Table 1 shows that the teachers had varying degrees of experience in teaching English, with (41.9%) of them having more than five year-experience and a further 39.5% having between 2-5 years. A few participants (16.3%) were novice teachers.

Table 1. Participants' experience in teaching

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
One year	7	16.3	16.7	16.7
2-5 years	17	39.5	40.5	57.1
More than 5 years	18	41.9	42.9	100
Total	42	97.7	100.0	
Missing	1	2.3		
Total	43	100		

3.2 Data Collection Instrument

A descriptive research was designed, incorporating a quantitative instrument to accomplish the objectives of the study. The study employed a survey design. The questionnaire was built to explore the attitudes of teachers towards using IWBs in language teaching and learning settings. The instrument was designed by the researcher after reviewing previous studies. The instrument was validated by five experts in the Education College at King Saud University. The reliability was determined by Cronbach's Alpha test. It produced an internal consistency coefficient of (0.83). Pearson product-moment correlation was used as well, to calculate the median stability coefficient which was found to be (0.79). The questionnaire included five-point Likert scale items: (1) meaning "strongly agree"; (2) meaning "agree"; (3) meaning "neutral"; (4) meaning "disagree" and (5) meaning "strongly disagree". The quantitative data was gathered and analyzed via the use of the SPSS program.

4. Results and Discussion

The questionnaire results (quantitative data) were divided into three categories:

- A) The attitudes of teachers toward the use of IWBs;
- B) The attitudes of teachers toward technical issues;
- C) The obstacles faced English teachers during the use of interactive whiteboards.

A-The attitudes of teachers toward IWBs as a teaching tool

The four questions in this section investigated teachers' attitudes toward the use of IWBs as a teaching tool. In

general, the proclaimed benefits of IWBs were included in the questionnaire statements in order to ascertain the participants' feelings and opinions regarding these features. Table 2 shows the attitudes of Saudi EFL teachers regarding the use of interactive white boards in their English language classrooms.

Table 2. Mean scores of teachers' attitudes toward using IWBs in teaching

Statement	Std. Deviation	Mean	%
I think using the IWB in teaching is comfortable.	1.493	3.23	64.6
I think the IWB could be used confidently to design new instructional situations.	1.316	3.07	61.4
I think using the IWB does not make me nervous.	1.424	2.86	57.2
I think using the IWB does not scare me.	1.528	2.63	52.6

According to the questionnaires' results, teachers' attitudes are generally positive. The results showed that the majority of teachers agreed that they enjoyed using IWBs in their lessons. The highest mean score was (3.23), indicating that the majority of respondents (64.6%) agreed that using the IWB was comfortable for the teachers. In addition, (61.4%) of participants (giving a mean score of 3.07) agreed that the IWB could be used confidently to design new instructional situations. The results also showed that more than half of the teachers surveyed (57.2%, creating a mean score of 2.86) indicated that they did not feel nervous while using the IWBs. Meanwhile, about (52.6%) of the teachers surveyed (with a mean score of 2.63) indicated that using the IWBs did not scare them.

The results suggested that Saudi EFL teachers had positive attitudes toward using the IWB in their classrooms, which corresponds with the findings made in previous studies (Shen and Chuang, 2010; Bakadam & Asiri, 2012; Isman et al., 2012). As the IWB is a tool for making conventional teaching patterns easier for the teacher, the study's results showed that the majority of the teachers did not feel nervous or scared while using the IWB but felt more comfortable in the teaching process. The findings suggested that teachers who had positive attitudes toward the IWB might be interested in teaching and technology and, may enjoy creativity in teaching. This agreed with the findings of Wood and Ashfield (2008), which supported the notion that such digital resources demand creativity in teaching. The teachers indicated that the IWBs helped them to design new instructional situations confidently. Teachers can put a variety of strategies and technique into practice by using IWBs.

B-The attitudes of teachers toward technical issues

As could be seen in Table 3, the highest mean score was (3.88), which indicated that nearly all of the participants (77.68 %) agreed upon the statement that they were able to deal with the advanced tools in the IWBs, such as using the dice, importing files, using the camera, and adding an audio file to the library. Meanwhile, (67.45%) of the teachers surveyed were able to maintain the IWB by removing and replacing the projector lamp module, focusing and adjusting the projector image and resetting the lamp. In total, (66.05%) of the participants agreed that they were able to deal with the library resources: such as drag, drop, and enlarge objects and using the rubber stamp.

Table 3. Mean scores of teachers' attitudes toward technical issues

Statement	Std. Deviation	Mean	%
I am able to use the interactive whiteboard system.	1.45	2.49	48.70
I am able to integrate other devices.	1.32	2.17	47.04
I am able to maintain the IWB.	1.34	3.37	67.47
I am able to use the IWB in teaching process.	1.46	2.53	50.65
I am able to Deal with the square of main tools.	1.46	2.71	54.10
I am able to Deal with the toolbar of demo planned.	1.48	2.75	54.92
I am able to deal with the main toolbox: store tools.	1.41	2.79	55.72
I am able to deal with library resources.	1.29	3.30	66.05
I am able to deal with advanced tools.	1.28	3.88	77.68

Similarly, over half of the teachers surveyed (55.72%) agreed that they were able to use the main toolbox, zoom tools and use instruments when writing texts. In addition, (54.92%) of the participants agreed that they could deal with the planned demo toolbar, such as jumping between pages, changing the page setup, organizing the page and resetting the page. The results indicated that (54.1%) of teachers agreed that they were able to use the main tools square, in which they are able to open and close the planned demonstration, create new illustration, customize the toolbox and save a demonstration scheme.

On the other hand, the lowest mean score was for the statement that "they were able to use the IWB system", with a mean score of (2.49), which in turn indicated that less than half of teachers (48.70%) agreed that they were able to orient the smart board, change orientation settings, erase a single item or group of items, and use handwriting recognition features. Furthermore, (50.65%) of the teachers surveyed agreed they were able to use IWB technology in teaching, which in turn indicated that the rest of teachers were, to some extent, unable to manage files and navigate the operating system. The lowest mean was (2.17P), which revealed that only (47.04%) of the teachers surveyed agreed that they were able to integrate other devices, such as connecting a laptop computer, adjusting video format, and adjusting the system. In the same line with some previous studies, findings indicated that not all teachers were able to resolve the technical problems occurring during lessons. In the study by Glover and Miller (2001), certain technical problems, such as inability to manipulate certain images and symbols and the freezing of the screen are mentioned prominently. Isman et al. (2012) confirmed that teachers are in need for professional development program in dealing with IWB.

C-The obstacles faced by EFL teachers concerning using IWB

According to the results of the questionnaire in Table 4, there are some obstacles faced by teachers when using the interactive whiteboard in EFL classes.

Table 4. Mean scores of the obstacles that face teachers while using the IWBs

Statement	Std. Deviation	Mean	%
There is lack of sufficient training on how to use IWBs in teaching.	0.889	1.55	31
There is difficulty in managing the students while applying such technologies.	1.677	3.33	66.6
There is no appropriate curriculum content for interactive whiteboards.	1.608	3.00	60
There is lack of class time for the application of the interactive whiteboards.	1.194	1.81	36.2
There is an absence of the related authorities' financial support with regards to equipping classrooms with new technologies.	1.601	3.79	75.8

Most of the participants (75.8%) agreed that there was a lack of sufficient training on how to use IWBs in teaching. more than (66%) of participants agreed on the difficulty of managing the students while applying such technologies. Meanwhile, (60%) agreed on the third statement, which indicated that there is no appropriate curriculum content for interactive whiteboards. The fourth question saw less agreement, with only 36.2% of the

participants agreeing on the lack of class time for the application of interactive whiteboards. The lowest mean score was (1.55), where only (31%) of the participants agreed that there was a lack of financial support from the relevant authorities with regard to equipping classrooms with new technologies. The negative points faced the participants included the lack of sufficient training for teachers on how to use the IWBs in teaching. Of course, in order to be able to do something, teachers should be trained well. These findings are in line with that of Bakadam and Asiri (2012) that concluded the need for training teachers with the employment of IWB. As the teachers did not receive sufficient training, this means that they are not well qualified for using IWBs. Yudit and Columba (2011) highlighted that teacher training and support in using the interactive whiteboards is critical components for effective implementation. BECTA (2003) recommended that the school training needs to be planned into the schedule for integration with classroom practice. In addition, results suggested that there should more attention paid to building curriculum that is suites the use of interactive whiteboard. As new technologies are introduced in the process of learning, curriculum should be also evaluated and developed in order to cope with the new advances.

5. Conclusion

The analysis of the results indicated that EFL Saudi teachers in this study had almost positive attitudes toward the use of IWBs in the teaching process. Regarding the teachers' responses related to teaching, the participants strongly agreed that IWBs were a good supplement for teaching. In studies by Matthews-Aydinli and Elaziz (2010), Duran and Cruz (2011), and Öz (2014), participants reported that they were comfortable with IWBs. They argued that IWBs made it easier to draw on a greater number and wider variety of information and learning sources and that these sources could be used flexibly and spontaneously in response to different pedagogical needs.

Although, analysis of the teachers' responses revealed some negative opinions toward the IWB, Most of the teachers agreed positively that the IWB does not scare them but, rather, makes teaching more comfortable. Most of teachers surveyed agreed on the problems faced them, such as lack of sufficient training, and the non-appropriate curriculum content for application of the IWB. Training is important for teachers to deal with the technological devices (Yudit & Columba, 2011). They need more training to learn how to resolve technical and system problems; they also need to understand how to use all the options offered by the IWBs. The schools should have classes equipped with all supplicants of the IWBs. Not all the subjects can be presented by IWBs, so the curriculum developers need to provide teachers with content that can be presented using this technology.

The present study recommended that EFL curriculum developers need to incorporate innovative teaching content that could be presented via the use of IWBS. English teachers are recommended to join training courses to ensure better implementation of IWB in language teaching classes, as well as courses that help them to resolve technical and system problems. Understanding how to use all the options offered by the IWBS will ensure better gains in integrating IWBS in EFL classes. The current study suggested more research to explore better practices in using the IWBS in EFL classes. Qualitative study to explore English language supervisors' attitudes regarding the use of interactive whiteboards is recommended.

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