What are the attitudes and perceptions of students, teachers and management towards the use of interactive whiteboards in our EFL classrooms at English language institute, Saudi Arabia?

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Declaration

The material contained in this dissertation is all my own work. When the work of others has been adopted / paraphrased (e.g. books, articles, handouts, conference reports, questionnaires, interview questions etc), it has been acknowledged according to academic convention. Sources of direct quotations are clearly identified. I have read and understood the University’s statement concerning plagiarism and collusion. Also, this thesis can be used for library purposes and to conduct further research in this field.

Signed: Haseeb ur Rehman Toor

Date: February 22, 2013
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4.1 Introduction

4.2 Data analysis procedure

4.3 Students' attitudes towards IWBs

4.3.1 Students' age, gender, level and their background

4.3.2 Students' attitudes related to learning

4.3.3 Students' attitudes related to technical issues

4.3.4 Students' attitudes related to affective learning

4.3.5 Students' attitudes related to motivational issues

4.3.6 Students' attitudes related to time-management and organizational issues

4.3.7 Students' attitudes related to traditional boards and IWBs

4.4 Teachers' attitudes towards the use of IWBs

4.4.1 Teachers' gender, education, experience and interactivity with IWBs

4.4.2 Teachers' attitudes related to IWBs as teaching tools

4.4.3 Teachers' attitudes towards the use of IWBs

4.4.4 Teachers' attitudes in terms of motivational issues

4.5 Attitude of management towards the use of IWBs

4.6 Observed the actual use of IWBs in two EFL classes

4.7 Conclusion

4.7.1 Overview of the study

8. Detailed discussion on results or findings

5.1 Attitudes of students and teachers towards IWBs

5.1.1 Attitudes of students and teachers related to learning and teaching

5.1.2 Attitudes of students related to affective learning and teachers' general attitudes
1. Abstract

This study and research explored the attitudes of students, teachers and administrators towards the use of interactive whiteboards (IWBs) in EFL classrooms and it also found valuable insights during the actual use of IWBs in teaching English as a Foreign Language. Further, this study found those factors which were affecting teachers' and students' positive and negative attitudes towards IWBs. Data was collected and analyzed from seventy-one students, thirty-one teachers and six administrators at English Language Institute. Two classrooms were also observed to explore their opinions towards the use of IWBs. Further, the results of questionnaires revealed that both teachers and students, and administrators have positive attitudes towards the use of this technology in language instruction and on the other hand, observations revealed that IWBs were used with their functions in those EFL classes. Furthermore, the data revealed that teachers and students revealed in their opinions in questionnaires that they appreciated this technology because the number of hours of IWB exposure increased students' awareness and it helped to motivate administrators to purchase IWBs for every classroom in three different buildings at English language institute.
2. Introduction

The ever changing technology is becoming more and more accessible to teachers now a days because teachers can use current technology in order to develop themselves and to have positive impact on their students. This new and current technology of IWBs proved itself not only in the field of ELT but also in other subjects such as math, science and engineering here in Saudi Arabia. It affects learning in several ways, including raising the level of student engagement in a classroom, motivating students and promoting enthusiasm for learning (Bacon, 2011). IWBs support many different learning styles and are used in a variety of learning environments (Chapell, 2003). When teaching was incorporated with IWBs, some important changes were observed, for example, engaged more students in lessons, used multimedia sources in order to practice different tasks in pairs and groups and motivated learners easily. Therefore, IWBs can be useful as a supplementary tool in order to maximize the benefits. Edwards (2002) highlights the in-class opportunities that the flexibility of IWBs allows students and teachers.

Evidently, this research identified that teachers who designed their lesson plans around IWBs, it made them more efficient and communicative with students and increased their productivity overall. Research also investigated that it improved students' attention and attendance. Further, this research found that IWB supported interaction and conversation in the classroom; it helped to start as a new culture and linguistic element in EFL classrooms. The questionnaires were sent to students, teachers and administrators where they proved that IWB is a very innovative and powerful support and tool for a second language acquisition. Two observed lessons also proved that students participated more due to IWBs and they were able to read, save and print the materials from IWBs. They were able to use IWBs with their pens and fingers. It made them more excited and they enjoyed the lesson plans which were taught with IWBs. Bacon (2011)
and Allen (2010) suggested in their studies that IWB also facilitates the navigation of the site because it was finger-driven on the board. It facilitated classroom activities.

1.1    My teaching context, students and Saudi educational system

I teach English as a foreign language at English language institute, medium-sized university in Kingdom of Saudi Arabia. ELI has prepared four-level English language preparatory program to move the students from basic English to fluency in four quarters (in one year). All academic courses are offered in English except Shariah degree. After finishing the preparatory program, students must reach a high level of English proficiency in order to participate and excel in the academic courses and complete their degrees. For my thesis, the research will be conducted on the preparatory program at ELI. Classroom sizes typically range from 25 to 30 students. Male students in the preparatory program usually range between the ages of 18 and 26. Mostly students do not have any English exposure until they get into preparatory program. I teach exclusively to male students as stipulated by Sharia and Saudi Ministry of Education guidelines. A majority of students have laptop computers, tablets (such as the Galaxy or iPad). Majority of these students are on Facebook and Twitter, have multiple e-mail accounts, and use the Internet regularly. Currently, Saudi students are using technology in the EFL classrooms in Saudi Arabia, particularly its youth, has embraced information technology at near-western levels. The Saudi educational system has traditionally focused on Islamic teachings and has only in recent years made an effort to incorporate more traditional western topics into its curriculum (Al-Rasheed, 2002: 189).

1.2    Challenges

There are many challenges for the EFL teachers in Saudi Arabia. The main challenges can be examined in two groupings: cultural challenges and classroom challenges. Arguably, the main
challenges faced by non-Saudi EFL teachers stem from the differences between their home cultures and the very distinct culture of Saudi Arabia. This is true for both male and female EFL teachers. Saudi students are generally very respectful in class and usually avoid arguing with their instructors. Further, the main challenges are related to student time-management, personal accountability, students’ prior educational experiences, the constraints that they have been educated under and differing cultural expectations between the teacher and the students. Also, group projects are difficult to implement because often one group member will be absent. In reading and writing classes, beyond the differing levels and needs, most students will be working on different stages of the task due to absences. This results in teaching multiple classes within one class because every student is working on a different stage. For example, many students regularly show up for class without pens, pencils, papers and their required binders. They shrug and explain that the necessary materials were left behind in any one of a thousand places and they ask to borrow whatever is needed for the day’s task. However, technology is making a huge difference in EFL classrooms where they pay more attention in detail, and has become a modern teaching method, employing modern communication mechanisms; to support the educational process, enrich and improve the quality of teaching (Hussein, 2011: 43).
3. Research questions

1. What are the attitudes of EFL instructors at English language institute towards interactive whiteboards?

2. What are the attitudes of EFL students at English language institute towards interactive whiteboards?

3. What are the attitudes of English language institute administrators towards interactive whiteboards in EFL classrooms?

4. How are the IWBs used in EFL classrooms at English language institute, Saudi Arabia?

5. What factors can influence EFL students' and teachers' towards the use of IWBs in EFL classrooms?
4. Purpose and significance of the study

Recently, the use of IWB technology is increasing widely and it is offering the creation of collaborative and interactive lessons by combining resources with a trained instructor's ability to move and manipulate objects (Essig, 2011: 03). This IWB technology has claimed many benefits where teachers exploit the features of IWBs and integrate their teaching methods and techniques with this technology to enhance learning process, and students are expected to be ready to embark on this change. Integration can be very effective if it is understood and found how much support can be expected from administrators. Although the literature lacks in investigating the broad study of students' and instructors' attitudes towards IWB at English language institute, medium-sized university in Saudi Arabia, but this study would definitely provide results both in qualitative and quantitative data, showing how EFL instructors and students perceive IWB technology to enhance and maximise their benefits. This is the study which will investigate the attitudes of EFL students, administrators and instructors towards the use of IWBs in the setting of EFL classrooms at English language institute based on previous studies in the Middle East. Through this research, ELI department would be able to decide whether to invest in this new technology or not. Administrators of ELI department would find out how much this technology can contribute to their particular teaching and learning process in EFL classrooms after analyzing the data. Further, this study will help researchers and educators to gain insight into the connection between the theory and practice of using technology to promote learning (Johnson, 2007).
5. Critical literature review

2.1: Introduction

Over the past few years, technology has evolved out in many countries around the world and it has influenced us greatly, including our EFL teaching. In fact, the IWB has been described as a combination of all previous teaching resources rolled into one: chalkboard, plain whiteboard, television, video, overhead projector, CD player and classroom computer (Hall and Higgins, 2005). Further, the utilization of this growing technology in EFL classrooms has motivated many researchers to explore the big question whether technology in general can improve language teaching and learning (Al-Mekhalifi, 2006; Ismail, Al-Mekhlafi, 2010; Lee, 2000; Mansour, 2007; Timucin, 2006). Also, the most important question is if instructors can achieve students’ learning outcomes (SLOs) at English language institute through this technology. Therefore, word processors, websites, emails, chats, online tutoring, blogs, podcasts, concordances and interactive whiteboards are some of the CALL applications that are commonly used by teachers and students at ELI. Interactive whiteboards started to be installed in late 1990s in classrooms, especially in UK, USA, Canada and Australia and today they are more interested to install them in schools, colleges and universities. Recent research reports and findings revealed a mixed picture about the benefits of IWBs. On one hand, it reveals its benefits, effectiveness, motivating and facilitating students at all levels (Bell, 2002; Harris, 2005; Smith, 2001; Walker, 2002). On the other hand, others suggest technology affects real teaching in classrooms. Therefore, IWBs’ impact should be investigated more with empirical studies (Gray, 2005; Smith, 2005).

2.2: Old and modern technology

In literature review chapter, the technology of CALL and interactive whiteboards will be explained and discussed in detail. The attitudes of EFL teachers and students will be discussed
towards these technologies. Also, their drawback, benefits, advantages and disadvantages will be discussed in order to understand their enhancement in the paradigm of English Language Teaching. The use of computers started thirty years ago in language teaching. Initially, CALL (Computer Assisted Language Learning) was introduced in 1960. CALL technology supports experiential learning, pair/group work, individual instruction, access to authentic material, provide effective feedback to learners, promote exploratory and global learning, allow independence from a single source of information, and finally motivate students (Lee, 2000). Additionally, educational computers spreaded through government-funded projects and PLATO (Programmed Logic for Automatic Teaching Operations) emerged in 1960s. It provided interactive, self-paced instruction for large numbers of students and integrated texts and graphics, and it was a kind of restricted email system (Alessi & Trollip, 1991; Levy, 1997). Also, computers became widely available for language teachers due to a huge drop in prices in 1980s. Therefore, it invented micro-computers (Chapelle, 2001). Thus, these microcomputers assisted learners to interact through text, graphics, audio and visual devices (Trollip, 1991). Some highly motivated teachers started to write their own CALL programs for language learning.

In 1980s, some academicians and educators started to put efforts in placing pedagogical teaching material in computers. Therefore, in 1983 TESOL conference started to write about pedagogical issues in CALL and then different suggestions came from educators and academicians to establish a professional organization (CALICO) (Chapelle, 2001). Multimedia also took the attention of educators after late 1980s because it helped to stimulate the senses, increased the involvement, attention and concentration (Chapelle, 2001). In 1990s, there was a huge breakthrough occurred with the evolution of the World Wide Web (WWW), which assisted students and teachers to reach a wide range of material and variety of audio, visual and textual
materials (Boswood, 1997). EFL teachers and students started to integrate WWW with CALL and acquired benefits not only at home but also in ESL classrooms (Dudeney and Hockley, 2007). It has become inevitable for teachers and students to use computers in their EFL learning and teaching settings because they can get ready-made material from internet and use them inside and outside the EFL classrooms and they have become widely accustomed to these facilities (Pennington, 1996; Smith, 1997; Warschauer, 2000).

2.3: Advantages and disadvantages of CALL technology

Now a days, student-centred methods in language teaching are being used, for example, communicative approaches and task-based learning where they emphasize more on autonomous learning (Kenning and Kenning, 1983). Teachers can bring an authentic material in four skills of English, such as writing, reading, listening and speaking. Therefore, teachers can be selective in their material and according to their students' needs through CALL. Therefore, this section will clearly focus on the advantages and disadvantages of CALL from the perspective of students and teachers. In terms of students' perspective, there are number of advantages that students can acquire as an independent learners, for example, interactivity, private learning, immediate feedback, an opportunity to edit work, and maintain learning pace (Ahmad, 1985). Also, students can read, download and practice computer-based materials and particularly internet. They can read authentic material to enhance their receptive and productive skills according to their own pace. These features can make students confident, self-learner and motivated in their learning process (Schoepp and Erogul, 2001).

Computers also offer privacy to learners, work on their own computers and stopping other students to look at his/her piece of work. This way they do not get humiliated, According to
Kenning and Kenning (1983). According to the affective filters of learners, for example, anxiety, fear and nervousness get lowered. Learners can decide their learning periods according to their pace of lives. If a learner is slow in learning, he can spend hours and hours on computers to practice different exercises to overcome his/her problem. In contrast to his/her classroom environment, where teacher does not get much time to correct his/her work. Computers can correct learners' pronunciation, mistakes or errors in writing, grammar and recording the voice to acquire proficiency. Ahmad (1985), Costanzo (1989), and Lee (2000) found out through research that computers are the infinite patience for learners and computers are great advantage for them because they spend hours to compose the documents, writing tests, and practicing linguistic forms. In classroom, students do not ask questions because they are shy, but on computers they can ask any question or they can take their time to type or use their keyboards. As the time is passing by, we can interact with latest CALL software programs. One of the most important advantages of these programs is that it imparts the feedback immediately, which is essential for learners. Because they want to measure their progress and obtain answers in a short time (Jung and Kim, 2004). Computers give immediate answers and feedback to learners unlike their teachers, so the learners do not really depend on their teachers (Robinson, 1991).

Computers can be very beneficial especially in writing classes where students can check and correct their spellings from Microsoft Word and download in their flash-drives for future reference. Also, they can add charts, graphics and number of visual texts for their documents. It is always possible for learners to send their drafts to their teachers through internet and teachers can correct their material by using Track-Changes software (Dudeney and Hockley, 2007). Vilmi (1999) explained that internet enriches our language learning. Not only it provides material for teachers but also for students. It is considered to be world's largest library and an unlimited
virtual realm, learners can use for their language skills, chatting with native speakers, listen to online radio, watch online T.V, getting online tutoring, download authentic material and many more things (BECTA, 2004; Shin and Son, 2007). Students can also share their ideas, exchange knowledge and chat with each other through video-conferencing (Beckman, 1999; Schofield, 1995). Students can use emails and participate in discussions all over the world to learn, but students need to get training in some pedagogical material, according to Berge and Collins (1995). However, teachers should an initiative to teach their students how to use internet and different resources to get the maximum benefits, according to Wood (1999).

Currently, podcasts are bring used to enhance learning. A podcast is a media file that is distributed over the internet for playback on personal computers and portable media players (Copley, 2007). This term was derived from Apple's iPod portable music player and was proposed by journalist Ben Hammersley to describe listening to audio files on a portable media player (Hammersley, 2004). Podcasts can be downloaded from different websites and they are in the forms of dialogues for all levels. Students can practice them anytime, anywhere and how they want. These podcasts are available for highly motivated students and who are autonomous learners. Podcasts are easy to find and available free on the internet (Boulos, Maged, Maramba, Wheeler, 2006). Moreover, these can be produced by learners and teachers. Many teachers, professors and lecturers use podcasts for their students if they miss their classes. This is another advantage to catch up their classes later (Dudeney and Hockly, 2007). CALL can assist teachers to find English Language material easily from internet and use their efficiently, develop themselves professionally, monitor their classes easily and provide opportunities to students to find numerous material by their own. Teachers do not have to write lots of material on the
whiteboard, they can explain things through CALL and they can be well-prepared in advance (Chapelle, 2001). Further, students can avoid paper testing and save a lot of papers. The perfect example of call I can experience at English Language Institute, Saudi Arabia, where we have English Language testing labs and we can accommodate 8000 students in those labs and those labs are fully equipped with modern computers.

Now a days, publishers have made it so easy for teachers and students to find the authentic material from websites, for example, listening and speaking activities (Celce-Murcia, 2001). Also, grammar activities can be downloaded and printed freely from those websites. It saves a lot of time of teachers because they can easily print those activities from those websites and practice in their classrooms. Further, teachers are using blogs where students can write their material and teachers correct or edit their material (May, 2005). Later they can see their correct work. On the other hand, there are number of disadvantages that have been reported. Therefore, they must be considered while teaching and learning with computers. First of all, we should not only rely on computers because computers are machines and they are controlled by someone (teachers). So it cannot replace a teacher because computer cannot conduct open-ended questions or dialogue with students. Secondly, computers are not suitable for some of the skill-based activities (Kenning and Kenning, 1983). Also, it is not possible for a computer to check the behaviour of a human being. According to Howie (1989), computer lack these characteristics, ability of consider different personalities, ability to guess, and personal values. It is only a teacher who can see and guess what his or her student wants in the learning process.

2.4: The use of interactive whiteboards

Here the definition of interactive whiteboard, ways of using IWB in EFL classes, benefits, drawbacks of this technology, and attitudes of teachers and students towards IWB use will be
discussed. Generally, these teaching and learning activities should be included with IWB (Brezinova, 2009; Brown, 2009; Swan, Schenker, and Kratcoski, 2008):

- Motivating teachers to incorporate and develop more digital resources such as video clips, films, sounds, songs, interviews, electronic microscopes, instructional games, online interactive websites.
- Enabling teachers to write, highlight, edit on-screen and save changes for further use; this makes it easier to build a collection of learning materials that can be regularly updated.
- Motivating students by allowing them to come to the front of the class and demonstrate their knowledge by completing a diagram, a sentence, a picture, etc.
- Viewing and browsing the Internet from the whiteboard, allowing all students to see and interact with visited websites in a teacher-guided manner.
- Providing an electronic flipchart, with all notes and diagrams saved as an HTML file for later use (e.g. for printing).
- Promoting collaborative learning by allowing students to add their contribution to the discussion by writing directly on the whiteboard. In addition, groups can view and solve interactive problems.
- Demonstrating how educational software works.
- In a networked environment, allowing teachers to monitor each student and choose which screen is displayed on the whiteboard.
- Catering more effectively for students with special needs, for example by using the large fonts and bright colors to help those who have trouble staying on task.
- Running online tests and displaying instant feedback to the group.

The British Educational Communications and Technology Agency (BECTA) defines IWBs as follows: "an interactive whiteboard is a large, touch-sensitive board which is connected to a digital projector and a computer. The projector displays the image from the computer screen on the board. The computer can then be controlled by touching the board, either directly or with a special pen. The potential applications are: using web-based resources in whole-class teaching,
showing video clips to help explain concepts, presenting students’ work to the rest of the classroom, creating digital flipcharts, manipulating text and practicing handwriting, and saving notes on the board for future use (BECTA, 2003b, p. 1). So the difference between an interactive whiteboard and a traditional whiteboard is that a teacher uses a special pen or his/her fingers to manipulate images and texts on the whiteboard itself. A teacher can make annotations, compose original documents, bring students’ documents onto the screen and edit them, get extra resources from the internet and allow students to use them individually (Bell, 2002; Dudeney and Hockly, 2007).

2.5: Kinds and sizes of IWBs

There are three types of interactive whiteboards (Harris, 2005). The first type consists of an infrared/ultrasound kit that can be fixed to an existing traditional whiteboard. This system does not have the same number of functions as an active whiteboard. The second type is a passive whiteboard that is sensitive to finger manipulations and has more functions than an infrared kit. The last one is the active whiteboard, which can be used with both a special pen and a human finger. This kind of interactive whiteboard has the most functions (Harris, 2005). Interactive whiteboards are available in two forms: front projection and rear projection (Summet, Abowd, Corso, Rehg, 2005). Front-projection interactive whiteboards have a video projector in front of the whiteboard. The disadvantage of these IWBs is that the presenter must stand in front of the screen and his/her body will cast a shadow. In contrast, rear-projection interactive whiteboards have the projector behind the whiteboard so that no shadows occur. Rear-projection boards are also advantageous because the presenter does not have to look into the projector light while speaking to the audience. The disadvantages of these systems are that they are generally more expensive than front-projection boards, are often large, and cannot be mounted flush on a
There are also some other optional features of IWBs. Interactive whiteboards come in different sizes, but the most common one is 190 centimeters in width. The size of the board is important because students at the back of the classroom should be able to see the images and texts clearly (Smith, 2001). Another important point is about visibility. If sunlight shines directly onto the board, students cannot see the images clearly, and thus sun blinds should be used to cover the windows (Levy, 2002). In addition, a whiteboard can be portable or fixed.

2.6: Benefits and drawbacks of interactive whiteboards

Gray (2005) investigated that use of IWB enhances teaching greatly by supporting classroom management, pace, variety and drawing attention to the grammatical features and patterns. Participants in research also explained that use of IWB had very positive effects on students' memorization skills and development. These benefits can be categorized into benefits for the students and for the teachers. Since 1990s, IWB has been offering number of benefits for students, for example, it increases students' enjoyment and motivation (Levy, 2002; Schmid, 2006) and students can save and print the material whatever it appears on the board (Bell, 2002; Walker, 2002). It also assists students to explain the resources to other students easily and increase the degree of understanding with the help of audio-visual material (Bell, 2002; Gray, 2005; Hall & Higgins, 2005; Levy, 2002; Martin, 2007). IWBs further help learners to be creative in their resources and presentations in the classrooms and give opportunities to students to collaborate and participate (Bell, 2002; Levy, 2002; Schmid, 2007).

In 2002, Levy conducted a small-scale study on IWBs at two secondary schools in England where he interviewed 11 teachers and distributed 286 questionnaires to 286 students and students claimed that they found IWB more enjoyable, interesting and entertaining. Additionally, they
claimed that it assisted them to understand the lessons through multi-media material. Also, some students were happy when their work was shown on the IWB, which again helped them to engage in lessons. Bell (2002) reported that the best work from students can be shown on IWB, can be printed from IWB and can be distributed to students who are slow learners. This can help them to motivate, boost their learning and correct their work for improvement. Also, Levy's study in 2002 proved that teachers can immediately select their work according to the need of their students, for example, using the palette on the side of the IWB screen, makes the teachers to go forward and backward depending on the needs of the students. Further, Walker (2002) has the same view that IWBs can be suitable on-the-spot changes during the lessons and impart teachers more flexibility and freedom according to their situations.

According to several studies, children have shown that they like using imaging, listening audio sounds and watching videos. Later in 2007, Martin reported that children appreciated the pictures and sound helped them to understand better. In Wall's study (2005), children pointed out that pictures (realia) helped them to understand what the teacher is talking about. Further, Smith, Hall and Higgins (2005) maintained that the internet and other peripherals enabled students to reach a wide variety of resources, including games and some software facilities as well. They also noted that IWBs are suitable for all ages. Levy, Walker and Wall (2002-2005) maintained that IWBs make teachers more inventive, creative and effective in their explanations. Also, teachers can provide immediate feedback to their students and incorporate more samples (Cuthell, 2005). Furthermore, IWBs increase the pace of teaching, provide an opportunity to teachers to be more flexible, keep the class together, grab their attention longer and motivate students (Smith, 1999; Kennewell, 2001; Moss, 2007 and Beauchamp, 2007).
Moreover, teachers use prepared material for their classes and can save more time for extra activities. IWBs can help teachers to engage class in writing more efficiently. If a teacher writes on the board, normally he loses his attention from the class. Further, these studies show that teachers become more active and students are no longer bored because of IWBs. Also, teacher can move quickly between texts and activities. So the pace of lesson can be increased with different material (Levy, 2002; Wall, 2005; and Moss, 2007). In contrast to this, studies maintain that benefits of IWBs outnumber the drawback but there are still some difficulties and drawbacks, which can hinder the expansion of this technology to grow. Teachers need extra time to plan and prepare the lesson plans. They also need special training for this. Some technical issues may arise while teaching, for example, break down the board (Glover and Miller, 2001; Levy, 2002; Gray, 2002; Hall and Higgins, 2005, Wall, 2005; Moss, 2007). According to Levy (2002) and Hall & Higgins (2005), students get bored if teacher faces problems to retrieve files on IWB. This kind of competence includes both technical and pedagogical aspects of IWB use. In other words, teachers should know how to demonstrate and integrate ICT and IWB technology in classroom settings.

Additionally, there are always some teachers who need to get trained in IWBs and it should be continuous as the technology changes on daily basis (Moss, 2007). In line with this, teachers will feel confident. According to Hall and Higgins (2005), some students reported the problem of freezing, which meant, the teacher had to reload everything, which wastes time. Teachers become less authoritative in their classes because they only deliver material with the help of IWB. Their roles become questionable in front of students. Another point about the IWBs is that there are different types of interactivity when IWBs are used in the lessons. The interaction can be between students to students, teachers and students, and IWBs and students (Birmingham,
Davies and Greiffenhagen, 2002). Harris (2005) points out that IWB technology is not cheap, for instance, the least expensive costs approximately £ 1500. Not all the institutes, schools and universities can afford this technology without a government funding or policy.

2.7: **Attitudes of students and teachers towards the use of interactive whiteboards**

Different studies have found different issues regarding IWBs. Therefore, some of them have particularly focused on the attitudes and views of students (Hall and Higgins, 2005; Kennewell and Morgan, 2003; Wall, 2005). Other studies have investigated about the perceptions of students and teachers both (Beeland, 2002; Glover and Miller, 2001; Levy, 2002; Moss, 2007; Schmid, 2006). Overall, both students and teachers are highly motivated about the use of IWBs in their lessons and appreciate the benefits of IWBs. To conclude the literature review, the use of IWBs started in 1990s in developed countries, but it started to grow recently in Saudi Arabia. IWBs are becoming now common at schools, institutes, colleges and universities in Saudi Arabia. English language institute also showed a positive attitude towards IWBs with Oxford in order to enhance their students' learning and get their teachers trained. As IWB technology offers great benefits; however, it is essential to note that it requires lots of teachers' training and their continuous development in this field (Harris, 2005). Both CALL and modern IWB technology have positive opinions from teachers, students and administrations. Although there are some financial barriers, misconception about technology, but they are still imparting benefits to students and teachers in all the settings (Lee, 2000). Further, chapter will explore methodology used in this study, including participants, settings, instruments, procedure, data analysis, results and discussion.
6. Methods

3.1: Research questions

This research found out the attitudes of students and teachers towards the use of IWBs in EFL classrooms. Also, this study showed in literature review how teachers and students acquire benefits from this modern technology. This study will further investigate the attitudes of administrators either they are going to purchase it or not. This research addressed the following questions:

1. What are the attitudes of EFL instructors at English language institute towards interactive whiteboards?
2. What are the attitudes of EFL Students at English language institute towards interactive whiteboards?
3. What are the attitudes of ELI administrators towards interactive whiteboards in EFL classrooms?
4. How are the IWBs used in EFL classrooms at English language institute?
5. What factors can influence EFL students' and teachers' towards the use of IWBs in EFL classrooms?

Moreover, this chapter will also include and present the setting and participants of the study, the instruments used for data collection, the procedures of data collection and data analysis.

3.2: Participants and settings

This study is limited only for English Language Institute students, teachers and administrators. So this study will be conducted only with ELI students (71 in numbers), 31 teachers and 6 administrators in order to understand their perceptions about IWBs in our EFL classrooms. Also, two more observations will be conducted to investigate students' and teachers' attitudes towards
IWBs. All the student belong to English language institute preparatory program where they study English as a foreign language for one year from lower level to proficiency. The age of students will be from 18 to mid-20s.

**Background information of students**

<table>
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<th>Institution</th>
<th>Levels</th>
<th>Total students</th>
</tr>
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<tbody>
<tr>
<td>18-21</td>
<td>Males</td>
<td>ELI, KAA university</td>
<td>1 - 4</td>
<td>71</td>
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</table>

The teachers' survey has also been prepared and was sent to thirty-one different teachers through email by using the Monkey Survey website web link where they can submit their comments. These EFL teachers come from different background and possess variety of experience in teaching English. These teachers have used IWBs in the past for years. Majority of teachers possess the experience from 2 - 10 years. In order to see the actual use of IWBs in English classes, three hours of English lessons will be observed. The criteria of observing these EFL classes will be based on the amount of the teacher's experience in using this IWB technology. Finally, six administrators were sent questionnaire as well and they all belong to ELI department. They are chosen because they either have enough knowledge about IWBs or they are going to participate in the decision-making process to purchase the IWB technology.

**Background information of teachers**

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Years of experience</th>
<th>Department</th>
<th>Total</th>
<th>Hours of IWB use</th>
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<td>Male</td>
<td>1-21 years</td>
<td>ELI</td>
<td>31</td>
<td>1-11 hours a week</td>
</tr>
</tbody>
</table>

**3.3: Instruments**

Survey techniques, personal interviews, class observations and instruments are being used to collect data for this research. Two questionnaires have been prepared for teachers and students in order to know about their attitudes towards this IWBs technology. Both the students and
teachers' questionnaires include five point likert-scale items, open-ended and multiple-choice items. Further, a consent form has been signed as well between researcher, teachers, students and management. At first, the questionnaire deals with students' attitude how they feel about IWBs in EFL classrooms. Next the other questionnaire explores the attitude of teachers in the EFL classroom settings. These questionnaires are inspired by Moss (2007) questionnaire on teacher and student perceptions of IWB in core subjects of math and science. Some questions have been taken from Levy's (2000) study where he was explaining the attitude of students and teachers towards IWBs. The students' questionnaire has carefully been translated into Arabic language as well in order to understand some statements with the help of bilingual teachers. However, the teachers and management's questionnaire has been prepared in English because it was felt that EFL teachers would easily understand questions and items in English. A pilot study was done in order to improve the questionnaire of students, teachers and management where different suggestions were taken and adopted accordingly. On the other hand, it is essential to explore the attitude of managements because they are supposed to invest this heavy investment for the enhancement of learning at ELI. Questionnaire was sent to dean, vice dean, financial administrator, director, skill coordinator and coordinator. Further, two classes will be observed in order to observe the EFL teachers and students' attitudes.

3.4: Procedure

In January 2012, there was an official meeting where they identified the strong need of IWB in EFL classrooms, but due to some reasons it as postponed and was not discussed lately. However, it was found out that there are three classrooms where IWBs have been widely used for meetings or online teaching. There are some IWBs in ELI's auditoriums but they have not been used actively, may be due to the need of training. Therefore, it is being felt that it is essential to get
perceptions of management and writer has prepared six questions in order to understand their mindset. The management team will be sent their questionnaire by using Monkey Survey website in December 2012. After the minor changes, the questionnaires was prepared on Monkey Survey website and the link was sent to teachers, management and students in order to learn about their perceptions and attitudes towards IWBs. Also, two classes were observed in December 2012 where the utmost try was to identify the need of IWBs and how to use them and finding the interest and motivation of students. Moreover, the permission was granted by Graduate Dean to conduct my questionnaires with students, teachers and management. However, I will not have an access to women section because of strict Islamic law restrictions.
7. Data analysis

4.1: Introduction

This study and research explored the attitudes of students, teachers and management towards interactive whiteboards in language classrooms. 71 students were educated and given the link in order to complete the questionnaire on Survey Monkey website where 58 students completed and finished their survey and rest of 13 students participated but skipped some questions. On the other hand, 31 teachers participated and 29 teachers completely finished their questionnaires on Survey Monkey Website and rest of two teachers skipped their questions. Also, the questionnaire was prepared on Survey Monkey website for management and sent to them through emails where six management people participated, for example, dean, vice dean, curriculum committee head, director, finance director and coordinator. The participation from head of English Institute and rest of administration showed how they perceived the use of interactive whiteboards in language classrooms and to what extent they support the use of this technology. Finally, this research and study is about to find out the analysis on three different questionnaires and their results. Also, it will follow the analysis and result of three English teaching classrooms where teachers used their interactive whiteboards and how students participated.

4.2: Data analysis procedure

In data analysis procedure, section three has been added in students, teachers and managements' questionnaires, in which there were two open-ended response items. They were able to add their further comments in those two open-ended response items. Since these questionnaires have been posted on Survey Monkey website where students, teachers and management participated and showed their great interest. Also, these questionnaires were analyzed automatically by the Survey Monkey website where the data was collected. The system itself was able to produce the
different charts after collecting the data from students, teachers and management. Further, system produced frequencies, percentages and questions with the data in order to analyze the likert-scale items consisted of a 5-point format: strongly disagree, disagree, no idea, agree and strongly agree. The system was able to calculate and show whether there was a significant relationship between attitudes and various participant factors, including age, years of teaching experience, hours of IWB exposure and type of the institute worked in. In addition, responses from the two open-ended questions were grouped according to the similar questions in the second section of the questionnaire and were discussed after each statistical analysis. The interview transcript data were analyzed according to the responses of interviewees for each of the six questions. The researcher examined all the responses for each question in order to find the similarities and differences between the attitudes of the administrators. Finally, the observation data were analyzed in order to reflect the actual use of IWBs in English lessons and to what extent the potential of IWBs is exploited.

The results have been obtained and analyzed and they are presented in four parts below. In the first part, the analysis of questions in the student questionnaire is presented according to six categories: gender, background, learning, technical issues, affective factors, motivation, time/organization and differences between IWBs and traditional whiteboards. In the second part, the responses and data have been collected and analyzed from the teachers' questionnaire and are shown in four categories: teaching through IWBs, attitudes towards IWBs, motivating students through IWBs and training on IWBs. In the third part, the data gathered from the management are presented into six categories where they managed to post their comments and pick choices according to questions. In the final part, three EFL classrooms were observed how students and teachers showed their interest in learning English as a second language by using IWBs. Observer
was able to document students' attitudes towards IWBs, their engagement during lessons and how they were managed to use the interactive whiteboard according to their lessons.

4.3: Students' attitudes towards the use of interactive whiteboards

4.3.1: Students' age, gender, level and their background in IWB

Figure 1:

Figure 2:
The section one deals with students' age, gender, level, their interactivity and experience with interactive whiteboards. Mostly students who participated in this questionnaire, they are from 15
to 19 years old and their total number was 52. There were also 18 students who participated and their age was from 20 to 25. The students who get into foundation English year, they come directly from their high schools. There was only one student according to data who skipped this question. Further, 100 percent male students only participated and received 68 responses. Only three students skipped this question. Researcher could not have an access to female section because males and females cannot study together here in Saudi Arabia according to Islamic law. Therefore, researcher could not collect responses from females. Also, their English department is segregated. Furthermore, different levels of students participated in the questionnaire, for example, according to data, only 5 responses were collected from level 1 - beginner students. 51 responses were collected from level 2 - elementary students. 7 responses were collected from level 3 - pre-intermediate students and 6 responses were collected from level 4 - intermediate students. Only 2 students skipped this question. In result, 69 students answered this question and mostly data comes from level 2 - elementary students because of the module-based system.

4.3.2: Students' attitudes related to learning

In this section, the questions particularly aimed to investigate students' attitudes towards the use of IWBs in terms of their perceived effect on learning. This section of questions were comprised of six questions in total where students showed their degree of strongly disagree to strongly agree. The first question aimed if the students really felt that they learn more if the IWB is used in their EFL classes. Secondly, the second question deals with their understanding of IWBs. Further, the remaining questions dealt with the drawings of their teachers if they were able to understand through IWBs. Also, these questions dealt with their perceptions regarding using audio and visual material with IWBs if IWBs helped them to understand these receptive and productive skills easily and comprehensively. These questions further helped to understand if
IWBs allowed them to learn from a wider range of sources, and in general, whether IWBs made learning more interesting and exciting for them in below figures.

Figure 5:

![Bar chart showing responses to the statement: I can learn more if my teacher will use the interactive whiteboard.](image)

Figure 6:

![Bar chart showing responses to the statement: Also, it will be easy to understand the lesson if my teacher will use an interactive whiteboard.](image)
Figure 7:

IWBs will make my teacher's drawing, diagrams and lessons easier for me to see and understand.

- Strongly Disagree: 41.5% (26)
- Disagree: 32.3% (20)
- Strongly Agree: 14.5% (9)
- Agree: 6.6% (4)
- No Idea: 4.8% (3)

Figure 8:

Through IWB it will be easy to comprehend and how to use audio and visual material.

- Disagree: 16% (1)
- Strongly Disagree: 6.3% (4)
- No Idea: 6.3% (4)
- Agree: 50.8% (32)
- Strongly Agree: 34.9% (22)
Figure 9: IWB will help me to learn from different sources. 

- Disagree: 6% (1)
- Strongly Disagree: 4.8% (3)
- No Idea: 12.7% (8)
- Strongly Agree: 31.7% (29)
- Agree: 49.2% (31)

Figure 10: IWBs will make my learning interesting and exciting. 

- Disagree: 1.9% (1)
- Strongly Disagree: 3.7% (2)
- No Idea: 14.8% (8)
- Strongly Agree: 37.0% (20)
- Agree: 42.6% (23)
By considering these charts, it is evident and clear that students strongly agreed, agreed, disagreed and disagreed in above data. In figure 5, 65 students participated and 6 students skipped this question. In this figure, 36 students agreed and 19 students strongly agreed. There are only 3 and 2 students who did not agree with IWB learning. There are 5 students how have no idea about this. However, it is apparent that 55 students like learning through IWBs out of 59 students. Next, 63 students answered the questions in figure 6. 27 students agreed and 27 students strongly agreed with the question. However, 6 students disagreed strongly and 5 students did not have any idea about it. Also, 8 students skipped the question. It can still be assumed strongly that 52 students understand their teachers' lesson plans immensely when they use their IWBs in their EFL classrooms. Further, in figure 7, 62 students participated and 9 students skipped the question. However, 46 students agreed and strongly agreed with their teachers who use drawings and diagrams in their ESL/EFL lessons. However, 7 students disagreed, but 9 do not have any idea about it. This might be because drawing and showing diagrams are more prevalent in math and science classes and this opportunity may not be applied so much in English lessons.

By looking at the open-ended questions, 6 students participated and these comments show great relevancy with this section. These comments are categorized as positive and negative. In terms of positive responses, one student from level 2 responded that it can enhance his learning as a student. Another student from level 3 responded that IWB is a new technology in Saudi Arabia and it is improving a lot and he prefers to use IWB in his EFL classrooms. Further, a student from level 4 responded that IWB is an interesting thing to rain on and then work on ---- it helps him to learn English as a second language. Also, one student from level 1 responded that it (IWB) helped him to learn English through pictures and
diagrams. Another student from level 4 responded that it helps them to learn and save the time both for teachers and students. Moreover, students stated that it helped them to get rid of markers and chalks. They had an access to internet during class. It helped them to learn from different sources, for example, internet, newspapers, magazines and learning websites. In terms of negative comments, students complained that they have only few interactive whiteboards at English Language Institute.

4.3.3: Students' attitudes towards related to technical issues

There were two questions which were aiming to explore students' attitudes towards the use of IWBs specifically in terms of technical issues. The first question asked whether problems with the screen and sunlight make it harder for students to see the text or images on IWBs. The second question was about the problem of technical breakdowns and the resulting issue of wasting time for recalibration. Therefore, in figure 11, 61 students participated and 10 students did not give much importance to this question. Perhaps they thought that they never came across these types of problems during their learning. However, 7 students strongly agreed and 28 students just agreed. On the other hand, 5 students strongly disagreed and 11 students just disagreed. In result, huge majority of students think that it can cause problems for students and teacher due to breakdown in IWBs. Further, there is an interesting mix of opinions of students in figure 12. Total 63 students posted their opinions and 24 students strongly agreed and just

Figure 11:
agreed. On the other side, 32 students strongly disagreed and just disagreed. This seems to indicate that the plurality of students has not faced IWBs breakdown or if they have, these problems were solved in a short period of time. One of the respondents indicated in open-ended questions that it was not an easy task to use the IWB pencil and sometimes it does not work properly. Three participants indicated and apprehended that the filter needed to be cleaned, and this warning irritated them during the lessons. Also, one student complained about the small size of the IWB screen.

4.3.4: Students' attitudes related to affective factors

This section was composed of four questions related to the students' overall feelings and opinions about the use of IWBs in language classes. The first question was asked in order to explore their feelings about IWBs in front of their classmates. The second question found out students' opinions on the ease or difficulty of using IWBs. Third question addressed students' preferences for IWB-based lessons and the last question was based on students' work, showed on IWB whether they felt uncomfortable or not. Furthermore, looking at the data in figure 13, this
Figure 13:

I will go in front of the class to use the Interactive White Board without any hesitation.

![Bar Chart]

Figure 14:

It will be difficult for me to use the IWBS without proper training.

![Bar Chart]
Figure 15: I will prefer those lessons which will use IWBs.

Figure 16: 11. I will feel terrible when my work will be shown on IWB in front of the class.
students are very shy in Saudi Arabia of using technology in front of other classmates, but this figure 13 showed great progress in their positive attitudes. Next, in figure 14, mostly students agreed that they must undergo for the training of using IWBs. However, there were some students who had the opinion of using without training because they copied their teachers and teachers explained them IWBs according to their English activities. Also, there was the majority of students (50) out of 63 who always preferred to use interactive whiteboards in their English lessons. Only 8 students were identified who were in favour of simple whiteboard. It was amazing to know that students were not hesitant of being their work shown on the IWBs. A huge majority of students wanted their work to be shown on IWBs where they were able to learn from each other. Only half of the students felt terrible when their work was shown on the IWBs.

4.5.5: Students' attitudes related to motivational issues

This section evidently investigates the perceptions of the students related to their concentration on the topics and their participations while IWBs were used. Next these questions focused how they got motivated by using IWBs and how it kept their attention longer in general by using IWBs. Figure 17 below clearly showed that 46 students either strongly agreed or just agreed that they concentrated better when their teachers used IWBs in their EFL classrooms. Only 7 students disagreed where they explained that they liked to concentrate on white board as well. Further, figure 18 identified that students were highly motivated in terms of participating especially when their teachers used IWBs. A vast majority of students supported this notion that their participation was based on their IWBs' activities. In figure 19, 99% students strongly agreed that IWBs really attracted and grabbed their attentions. Because they were able to participate lively
Figure 17:

I concentrate better when my teacher uses an IWB.  

Figure 18:

I will participate more if my teacher will use IWB.
Figure 19:

IWB will be the best source to grab students' attention during the lesson.

Figure 20:

IWB will motivate me to learn English as a second language.
and physically used the IWBs which made a huge difference in their learning process. Further, IWBs could kill their boredom and got rid of primitive lecturing method where students were just able to listen without any participation. Again, students identified that they were highly motivated when they used their IWBs physically and corrected their mistakes with the help of teachers and students. 99% students were motivated where their teachers used the IWBs in their EFL classes. This data showed again positive attitudes and perceptions of students towards the use of IWBs at English language institute.

4.3.6: Students' attitudes related to time-management and organizational issues

These questions investigated and identified the students' opinions about the features of IWBs in terms of time management and organization of the lessons. At first, the question aimed to learn the attitudes of the students towards IWBs and a possible resulting increase in the pace of the lesson. Next question was related to the plan and organization of the lessons when IWB-based materials were used. The last question found out the data regarding time saving, which are often noted as one of the basic advantages of IWBs. Moreover, it was very interesting to know that half students disagreed and half of the students agreed in figure 21 below. The result showed that it was hard for half of the students to keep the pace and rest of students were able to maintain the pace with IWBs. In figure 22, mostly students strongly agree that IWBs made their teachers...
organized. Because it took them a lot of time to prepare the lessons on IWBs, but it imparted the immense result in terms of organization and time saving in figure 23, where 43.6% students...
strongly agreed. Also, 34.5% students supported this perception that it saved their time and finished their lessons in time.

4.3.7: Students' attitudes related to the difference of traditional boards and IWBs

Figure 24:

This last section clearly deals with the differences between traditional and IWBs where students mostly supported the difference. From the above chart, 20 students strongly supported that there felt a huge difference of learning between traditional boards and IWBs. On the other hand, 18 students supported the same attitude and perception. Only 5 students could not distinguish, but 13 students altogether did not find any difference between traditional and IWBs. As far as students supported their learning process in the above figure. Students supported the same way in
the below figure where students thought and felt that they learnt a lot while their teachers used IWBs. Therefore, 17 students either disagreed strongly and 19 students just disagreed on the difference of conventional and IWBs. But there were still some students who had the view that they did not find any difference and did not find them useful either. Also, there were some students who mentioned that IWBs should not installed at our university because they did not see any difference. However, there are positive and negative attitudes in this question below.

Figure 25:

4.4: Teachers' attitudes towards the use of interactive whiteboards

4.4.1: Teachers' gender, education, experience and interactivity with IWBs

This first section is based on teachers’ background, age, years of experience with interactive whiteboards and how they used IWBs. This data has been collected recently on Survey Monkey Website where 31 teachers participated and posted their opinions from strongly disagree to strongly agree options. In this section, five figures have been analyzed below. Total 29 teachers
participated in this question and interestingly, 9 teachers are between 36-40, 9 teachers are above 46, and 7 teachers are 31-35. There are two teachers who are 20-25 and one teacher is from 26-30. There also 6 teachers from 41-45. However, this variety of age has imparted a variety of experience to the students at English Language Institute. In question 2, 30 teachers participated in this survey and only one female teacher participated. As mentioned above, it was hard to get a permission from management in order to do survey with female teachers and students because it is restricted according to Islamic law. Therefore, the focus was only made on male teachers at English Language Institute to complete the data. In question 3, mostly teachers had 6-10 years.
Secondly, a large majority of teachers possessed 11-15 and 21-above years of experience. There are only two teachers who possessed 1-5 years of experience and 4 teachers who had 16-20 years of experience. In figure 28, it was evident and clear that mostly teachers (11) taught 1-2 hours a week. Also, there are 6 teachers who taught 3-5 hours a week and 7 teachers 11 or more hours a week. Therefore, the attitudes and perceptions of teachers towards interactive whiteboards were just compact, solid and compound. Further, 22 teachers mostly
used IWBs just for integrated skills. After this, 11 teachers used IWBs for grammar teaching and 9 teachers used just for teaching reading skills. 7 teachers used it for writing skills and very low number of teachers (3) used interactive whiteboards for speaking skills.

4.4.2: Teachers' attitudes related to IWBs as teaching tools

The researcher included nine questions in this section in order to investigate the attitudes and perceptions of teachers towards the use of IWBs as teaching tools. In general, these questions proclaimed the benefits of IWBs, for example, saving time, enabled teachers to teach through different sources, saved and printed students' work or examples, eased review and allowed opportunities to interact with the class face to face. These all perceptions were included in questionnaire statements to learn the teachers' feelings about these features of IWBs. Also, researcher investigated to find out if teachers were more effective, efficient and better managers of their classes while they used IWBs. As figure thirty-one investigated that 14 teachers agreed and 11 teachers strongly agreed that using IWBs reduced their time in writing. But there were some teachers (3) who strongly disagreed. Because their typing speed was slow and could not
Figure 31:

Using IWB-based resources reduced the time I spent in writing.

Figure 32:

When used IWBs in the classroom, I spent more time for the preparation of the lesson.

elevate their pace. In figure 32 below, either 7 teachers strongly agreed or 10 teachers just agreed that they spend a lot of time in preparing lesson plans for their students. But there are some teachers who did not spend a lot of time in preparation. Perhaps they got good training and used IWBs for a long time. 10 teacher did not have to spend longer hours to prepare their lessons. Further, 25 teachers either strongly agreed or just agreed with this perception that IWBs helped
them to display the different material from different sources. Only 4 teachers perhaps disagreed

Figure 33:

because they had their material to display on IWBs. Two teachers did not have any idea about it.

Mostly teachers at English Language Institute shared their material within the group of teachers as well.

Again, majority of teachers (24) strongly agreed that IWBs were beneficial to print the material whatever they taught and generated during their studies. Four teacher did not agree because they

Figure 34:
did not have printers in their rooms. Further, 9 teachers were strongly agreed that they were able to convey and impart more effectively through interactive whiteboards. Also, 12 more teacher supported them as well and posted their comments that IWBs are the most effective sources to instruct students and engage them in learning. Only 4 teachers disagreed with this perception. According to them, they were better able to communicate their classes before the start of every activity. In figure 36, 16 teachers supported that they could easily control their classes through IWBs, but there are 8 teachers who did not have any idea about it. Perhaps they had different techniques to control their classes which they did not share. There are only 5 teachers who disagreed this and they were able to control their classes through their traditional methods. Also,
in figure 37, mostly teachers considered that IWBs could provide them good supplementary materials for their teaching. 13 teachers agreed that it a good source for supplementary material. 12 teachers also supported more to add into their above comments that mostly teachers supported this and only 3 teachers disagreed with this below.

Figure 37:

![IWBs can be a good supplement to support teaching.](image)

Figure 38:

![Using IWBs made me a more efficient teacher.](image)
4.4.3: Teachers' attitudes towards the use of IWBs

Further, these questions evidently aimed to investigate and identify teachers' general attitudes towards the use of IWBs. These questions were divided into sub-categories of positive attitudes and feelings and negative attitudes and feelings. Figure 40 and 42 were considered as positive attitudes because they directly focused whether teachers liked using IWBs and whether they had positive attitudes towards it. On the other hand, figures 41, 43, 44 and 45 were considered as
negative attitudes and feelings of teachers while using IWBs, their concerns about their students' readiness to use this technology, and doubts about their own readiness to use IWBs. Further, figure 46 also directly related to the preference of a traditional way of teaching over IWB technology. It was considered in the negative category as well. In figure 40, teachers strongly agreed of using IWBs in their lessons, but there were few teachers who were not in the favour of using this. Further, teachers strongly disagreed being uncomfortable in front of class using IWBs, which showed their positive attitudes in figure 41 above.

Figure 42:
Figure 42 and 43 were positive and negative attitude questions because one dealt with positive and other dealt with negative attitude and feeling. Now 26 teachers posted positive opinions related to have positive attitudes towards IWBs. In opposite figure 43, The question is negative but 21 teachers posted positive comments in favour of IWBs. Further, teachers considered very positively that their students were ready to use this technology and they posted positive comments of using IWBs in their classrooms. 19 teachers strongly disagreed, which means they are in a huge favour of this that their students are ready. Moreover, figure 45 explained that teacher did not rely on their traditional methods. They liked using new technology in their classrooms.
Figure 45:

Figure 45: lessons. 21 teachers out of 25 commented that they loved to incorporate technology in their methods. Also, one of the open-ended questions where one teacher explained, 'a lot depends on how the IWB is used in a language classroom. After all, it is just a facility not a teaching method or strategy. It will work well for a smart, well-prepared teacher who know the full potential of this facility'. In figure 46, the question represented negative attitude towards IWBs technology, Figure 46:

Figure 46: but teachers responded positively. Total 26 teachers participated and 23 teachers thought that they were able to work on and use IWBs in their classes attentively. As one of the teachers responded in open-ended questions, 'I would like even my students get orientation before I use
IWB in my classroom irrespective of the levels of students involved'.

4.4.4: Teachers' attitudes in terms of motivational issues

In this section, questions intended to identify teachers' attitudes in terms of motivational issues. This section was based on four questions where questions meant to gather information about teachers' opinions whether they thought that using IWBs made their lessons more enjoyable and interesting, helped students to keep their attentions longer, increased their interaction with their mates and teachers, motivated them and participated during their lessons. One of the teachers in open-ended questions mentioned and explained, 'although it is not essential, but I think IWB can be a very valuable resources to teachers to make their classes more visually appealing, interesting and more interactive'. Another teacher explained, 'using IWB was very effective in my own experience. It enabled me to surf the net and show pictures, examples, videos very quickly to my students in my EFL classrooms'. One more teacher said, 'it really enhanced his students' learning positively'. Also, there was one teacher who thought, 'I personally think if IWBs are abused, they could make the teachers' lazy especially, if the teacher is typing via computer while be seated all the time'. However, the teachers who have responded in figure 47:
above, they had the view that it really made their teaching enjoyable and interesting for their students. Twenty-four teachers strongly agreed out of twenty-five to support this that IWBs made their lessons enjoyable in receptive and productive skills.

In figure 48, mostly teachers had the opinion that they needed proper training for them and for their students in order to use IWBs. 26 teachers participated and 22 teachers supported this idea to get the training. On the other hand, 4 did not want to get the training on this. One of the teachers posted his comment in open-ended question, 'sometimes technology stops working for no reasons which means, teacher has to be prepared for both options which means, extra work. In Figure 49:
figure 49, 13 teachers agreed that they felt uncomfortable without training. Also, seven more teachers strongly supported their colleagues. Further, six teacher could teach this without training and felt comfortable. Also, one of the teachers explained in few sentences about his training and Figure 50:

![](image)

'Again, just my own opinion, teaching smart with equipment that makes economical sense will never replace EFFECTIVE teaching!' One of the teachers said in open-ended questions, 'well the teachers' motivation and involvement itself must be the core of attraction and it is in the hands of the teacher how he would like to shape the students' learning experience'.

Figure 51:
4.5: Attitudes of management towards the use of IWBs in EFL classrooms

Ten questions of multiple choice with management were carried out. The aim of survey was to identify and investigate the attitudes of administrators towards the use of IWBs in English Language Institute and to observe whether they were supportive or critical about this modern technology. In question 1 and figure 53, 6 administrators responded where their three administrators' age was about 30-39, 2 administrators were 40-49 and one administrator was 50-59 above. Secondly, the researcher could not have an access to female administrators because of Figure 53:
Figure 54:

Islamic law, no male teacher or students can have an access to female administrators, teachers or students except few exceptions in few rare cases. Therefore, only male administrators participated. Also, majority of teachers possessed 11-15 years of experience below in figure 55. Two administrators had 6-10 years of experience and one administrator possessed 21-above years of experience. In figure 56 below, 6 total administrators participated and they were all

Figure 55:
familiar with IWBs technology and they all have used this technology in their capacities. Mostly, they used this IWB technology during their meetings in auditoriums and in classrooms while they taught. Further, dean, vice dean, head of administration unit, head of academic coordination unit, head of curriculum unit and EFL coordinator participated in this survey in order to post their comments and helped to improve this research. Therefore, researcher made a survey with multiple choices in order to have their comments instead of interviews. In figure 58, the question was designed in order to identify and investigate whether the administrators thought that technology used in general was necessary for EFL teachers or not. When the responses were analyzed, it was observed that all of the management agreed that technology was absolutely necessary for EFL teachers.

Further, 5 administrators added more information and said that it should serve a purpose in order to enhance students' learning to achieve learning outcomes prescribed by the department. In other words, technology can be a helpful aid, but teachers should be selective when incorporating technological facilities in their lessons, and take care to ensure that those technological aids are
used appropriately in order to enhance learning, not for entertainment. In next figure 59, the question aimed to explore the administrators' observations about the extent of technology used.

Figure 57:

![Bar Chart: What is the job title for your current position?]

Figure 58:

![Pie Chart: What do you think about the use of IWBs in our ESL/EFL classrooms? Is it essential or not?]

A. Yes, it is essential and it should solely be used to teach students.
B. It should be used for entertainment as well as for students.
C. It should serve a purpose in order to enhance students learning...
by their EFL teachers at their English language institute. Five administrators unanimously agreed that administration, teachers as well as students were able to get the benefits. Because initially, they used this technology in Engineering department and now they had a positive attitude of purchasing this for all the EFL classrooms.

Furthermore, this below question was intended to learn in what concrete ways the administrator supported the use of IWBs. Five administrators supported the use of technology by providing technical support, financial support, and verbal encouragement. They also pointed out that they would get the financial support and recommendation coming from the higher administrators from Riyadh (capital). They further indicated that they would get this from Oxford University as well as Figure 60:
IWB software for certain books, training and extra material, which would make the teachers’ jobs easier. Administrators provided ten teachers training as well from the Oxford University two years ago. One of the administrators explained that they were planning to provide a special in-service training sessions in order to train all the teachers at ELI regarding IWBs. Also, they planned in the past to get one person trained from Oxford University and then he could train the rest of 30 teachers here at English Language Institute. The next question aimed again to find out that what would happen to teachers if they get training and use IWBs at ELI. Therefore, mostly administrators managed to explain this that teachers here at ELI were not trained. First of all, they needed to get the proper training and management decided in the above question that they planned to get the training from Oxford University. Also, head of academic coordination unit explained that management should arrange technical support and maintenance before they purchase in figure 61. For the final question, the respondents were asked to talk about the
Figure 62:

benefits of IWB technology for language teaching purpose in particular. Mostly administrators
believed that IWB-based lessons were more interesting, enjoyable and different from traditional
lessons due in part to the use of audio and visual materials, which attracted the students' attention and increased their motivation. However, one of the administrators thought, 'However, like course books, traditional non-electronic whiteboards, dictionaries etc - it is just a tool - how it is used and for what purpose is critically important. I have observed teachers in my previous job who were real experts with IWBs and created attractive and visually stimulating pages on their IWBs. However, some of these teachers relied on the IWB too much. This made their lessons too teacher-centered and the learners spent most of the lesson focusing on the board, and not enough time engaged in small group activities in which they could practice the language they'd been taught in communicative tasks'.

4.6: Observing EFL teachers' actual use of IWB technology

The technology of IWBs possess many benefits, for example, increasing teaching time by using ready-made materials (Walker, 2003), increasing motivation and interaction (Gerard et al., 1999; Levy, 2002), reducing the need for note-taking (BECTA, 2003), permitting the saving and printing out of students' work (Walker, 2002), and it went on while researcher observed two EFL classes in order to observe whether teachers acquire or receive benefits from these claimed features or whether they came across any problems related to this technology. Therefore, observer conducted two different observations in which IWB technology was used. These observations also assisted observer and revealed the attitudes of students and teachers towards this technology. In these observations, teachers used Smart Visions' boards. However, these Smart Visions' boards were connected to internet. Also, students at ELI were fully equipped with technology where they had their I-Pads, Blackberry phones and Samsung tablets. In short, three lessons have been described in detail to show the ways that teachers and students used their IWB technology.

The first lesson was observed in building 30. The lesson was focused on grammar, comparative and superlative adjectives. The teacher also handed out worksheets including different tasks in which students were asked to use comparative and superlative adjectives in different scenarios. Teacher showed the pictures to students on interactive whiteboard in order to explain and compare the shorter and taller, bigger and smaller, younger and older, nosier and quieter, colder and warmer. Teacher also made the students to use and click on pronunciation on interactive whiteboard. Further, teacher gave students the worksheets of matching adjectives with pictures and how to use them in an authentic text. Teacher showed these tasks on interactive whiteboard. Teacher showed them a video of comparison between city life and country life on IWB where
students were able to use those adjectives in their communication at the end. This observation revealed that teacher used the IWB to show the material, different tasks, how to use pronunciation and videos. Finally, students were able to imitate the same conversation what they saw in the video on IWB.

Again, the second lesson plan was observed in the same building where teacher's mainly focus and objective was to teach vocabulary words to level 1 students. Teacher started his lesson with the warm-up activity where he showed some routine questions on the IWB and he practised those questions and answers with 25 students for 10 minutes. Further, he clicked the instructional page where he explained the students that they were going to learn 5 new vocabulary words from unit 8 Headway book. Further, teacher showed them words, for example, buy, fashionable, earn, transmit and chemist. Teacher explained them words one by one with their pronunciation, meanings, synonyms, antonyms and how to use them in authentic text. Students were able to click and use IWB one by one to listen the pronunciation and for their communication. Also, teacher prepared worksheets on IWB and separate sheets (hands-out), matching words and pictures (realia). Teacher also put students in pairs to make different sentences on these words and put them on IWB for correction. Teacher used different colour for correcting the sentences on IWB. In this lesson, many examples of the functional use of IWB could be seen, such as used extra sources via the internet, playing the pronunciation, showing pictures from different websites, saving the work correct work on the IWB, using online dictionary and printed the students' work for their later use.
4.7: Conclusion

4.7.1: Overview of the study

This data identified the attitudes of students, EFL teachers and administrators towards the use of IWBs, factors affected students' and teachers' attitudes positively and negatively, and the actual use of IWBs in EFL classrooms. Qualitative and quantitative data were collected in this research. The participants of the study, for example, were selected from different levels, teachers with different backgrounds and experiences and teachers who used this technology in their lessons and administrators who have used this technology for their different purposes. Three different questionnaires were used for teachers, students and management. Seventy-one students, thirty-one teachers, two EFL teachers and six administrators participated in order to gain initial insight into the ways of IWB use in language instruction settings. Further, this chapter will explore, present, discuss the findings, limitations and implications drawn from the result of data analysis in relationship to the existing literature on IWBs' use and their incorporation into EFL classes.

The results and findings will be presented and discussed under four headings in order to fulfil the above research questions:

1. Students' and teachers' attitudes and feelings towards the use of IWBs in EFL classes.
2. Administrators' attitudes towards the use of IWBs.
3. Factors affected students' and teachers' attitudes towards the use of interactive whiteboards in English instruction.
4. Actual use of IWBs in English classes.
8. Detailed discussion on results and findings

5.1: Attitudes of students and teachers towards the use of IWBs in language learning settings:

This part of the discussion was added to identify and investigate if this fulfilled the requirement of first two research questions where students and teachers posted their comments on Survey Monkey. The questionnaire items were categorized according to particular concepts in order to ease reporting and analysis. The six categories were learning and teaching, affective factors and attitudes, motivational issues, differences between IWBs and traditional whiteboards and training. These six different sections provided us the result of first two research questionnaire below:

5.1.1: Students' and teachers' attitudes related to learning and teaching

According to this section, the result indicated that both students and teachers thought that IWBs were useful to enhance teaching and learning process. They both expressed their strong positive opinions in their questionnaires about the contribution of this technology, and its use of audio and visual material in particular, to language learning and teaching. These results were similar to previous attitude studies about IWBs. For example, Wall et al. 's (2005) researched that the majority of the pupils surveyed also expressed their positive opinions about IWBs' contribution to effective learning. In the similar study by Glover and Miller (2001), students supported the same idea that with IWBs were easier to follow the lessons who had difficulty in understanding the lessons. The responses in current research and study that gained the highest percentage was figure 5, where fifty-five students strongly agreed that they were able to learn more when their teachers used IWBs. Further, fifty-four students strongly agreed in figure 8 that using audio and visual material with IWBs helped them to understand the lesson better and in figure 15 above,
fifty students agreed that they preferred those lesson where IWBs were used in their EFL classes. In Levy (2002) and Lee and Boyle (2004), the teachers reported that IWBs made it easier to draw on a greater number and wider variety of information and learning sources and these sources can be used flexibly and spontaneously in response to different pedagogical needs.

5.1.2: Student's attitudes related to affective factors and teachers' general attitudes towards IWBs

According to this section, students' attitudes related to affective factors and teachers' attitudes towards IWBs were analyzed together because the questionnaires dealt with overall preferences, concerns and positive or negative attitudes. The data revealed that both teachers and students above understood the importance and significance of IWBs in their lessons and its use. In figure 17, 18 and 19 above, ninety percentage of students strongly agreed that they preferred IWB-based lesson. On the other hand, almost hundred percent teachers strongly agreed that they liked using IWBs in their lessons in figure 40, 42 and 43 above. Also, the results of Levy (2002) and Smith (1999) were similar to this finding in that the learners in these studies appreciated visual presentations, and the interesting atmosphere of an IWB-based lessons. However, comparing the percentage of responses to these current data, it was seen that the degree of teachers' liking to use IWBs was higher than the degree of the students' preference for this technology even though teachers' numbers were lesser than students. Also, one question was asked in and mentioned in Wall's (2005) and Smith's (2005) articles - which was the question of who was actually using the IWB. In this research and study, students posted their opinion by mentioning in figure sixteen above that they loved to have their work shown on the IWBs and liked their work to be corrected. From the teachers' perspective in figures fifty, fifty-one and fifty-two above, it could be analyzed that teachers had experienced the unique features or benefits of IWBs, they liked
more and more to incorporate this into their teaching contexts.

Furthermore, some questions proved above that students were enthusiastic and ready to use this technology, for example, in figure forty-four, teachers strongly informed that their students were ready to use this technology because in Saudi Arabia, students were well-informed about these modern gadgets. Another result of this research revealed that the majority of teachers expressed their readiness to use technology in figures forty-five and forty-six above, where teachers loved to use IWBs in their teaching method to enhance learning. Optimistically, teachers proved in the above data that they could do better while they used this technology. Seven of the pupil groups in Hall and Higgins (2005) commented that it took only a week or so to get used to IWBs. Informally, some of the teachers expressed their opinions that their students at level 4 were better than him in using IWBs and sometimes students solved technical problems by themselves. However, teachers and students expressed in figures forty-eight and forty-nine above that they both needed a proper training in order to use this technology otherwise it might cause damage to this. Again, this section clearly revealed that it fulfilled the requirement of first two research questions where students and teachers had positive attitudes and perceptions about this technology in their EFL classrooms.

5.1.3: Students' and teachers' attitudes related to motivational issues

Mostly students strongly agreed when it came to motivational issues that they felt motivated, it increased their concentration and made them feel that they participated more in lessons than usual in figures seventeen, eighteen, nineteen and twenty above. The results of Weimer (2001) revealed that the degree of students' motivation increased with the use of IWBs, which would be parallel with the reported opinions of the students in this study. All findings indicated that IWBs were perceived as good indicators in teaching and learning contexts by the
students and these motivational factors could easily achieve and reinforced learning. In regards to motivational studies, nearly twenty-four teachers out of twenty-six expressed in above figure fifty-two that IWBs enhanced motivation, interaction and participation of the students. One of the English teachers in Glover and Miller (2001) commented that IWBs motivated the students differently from books in terms of the way IWBs engaged the students and attracted their attentions. Both results here in this research and previous studies indicated that a majority of the teachers identified that IWBs helped their learners to be motivated and be attentive to their English lessons. As a result, this section also fulfilled the requirement of first two research questions where students and teachers proved that this modern technology enhanced their students' learning and made their teachers efficient in their lesson plans.

5.1.4: Students' attitudes related to technical issues with IWBs

This issue has been raised and discussed in Hall and Higgins's (2005) study, where several group of students complained about the sunlight issue, added that window blinds were not big enough to block out the light totally. Therefore, sunlight seemed to be a common issue or problem stated in figure eleven and twelve above, where thirty-five students strongly agreed that IWBs often broke down and recalibration caused a waste of time. But there were still some students who did not face this problem during their lessons and there were some who did not have any idea about it. This finding is similar to Levy's (2002) study in which many students drew attention to technical failures and pens that disrupted IWB-based lessons. There were some other issues, for example, inability to manipulate certain images and symbols, and freezing of the screens were mentioned prominently. However, in the open-ended questions some teachers expressed their views that teachers should prepare extra material in case if something happens so that the teaching and learning process is not affected. As a result, IWBs could break down but still
teachers and students largely showed their intent to support in their learning and teaching positively.

5.1.5: Differences between traditional and interactive whiteboards according to students

Two questions were asked to students on the difference of traditional and interactive whiteboards. Students definitely recognized that there was a huge difference between these two boards. The results also revealed these differences above in figure 24 and 25, where thirty-eight students responded and posted that they found a great difference between these two boards. Because they had used interactive whiteboards in their classrooms and used to print and save their English material. This finding was important because some administrators thought that there was not much difference between LCD projectors and IWBs. So there was no need to install those IWBs. Some students thought that there was not much difference and according to some teachers, traditional white boards seemed adequate for teaching. In the above figure 29, eleven teachers used IWBs for 1-2 hours per week, seven teachers used this for 11 or more hours per week and 6 teachers used 3-5 hours per week. The results showed that students and teachers liked to use this technology for their teaching and learning as the hours of IWB-based lessons increased and the degree of recognizing differences between IWBs and regular whiteboards rose as well. This again fulfilled the requirement of first two research questions because here majority of students found a great deal of difference between these boards and they found IWBs more positive than traditional boards in their EFL classrooms.

5.1.6: Attitudes of teachers towards the training issues

One of the most important and frequent issues raised by many teacher was a great need of training in order to benefit and impart benefits to their students through this modern technology.
According to above data in figure 48 and 49, 98% teachers expressed vividly that needed training to use this technology. Also, this data is not surprising because this data is almost similar to Glover and Miller (2001) where majority of teachers urged to get the training. Further, four teachers mentioned that they did not need any training to use it. Perhaps they had training in the past. These results indicated that a fairly large group of the participants seemed IWBs not difficult to use, but training was still an important service to be offered. Dexter, Anderson and Becker's (1999) study revealed that provision of efficient and effective training support is important for the systematic incorporation of any new technology into education settings. In the open-ended questions, some teachers pointed out that they should get training before they use this technology in order to exploit all the functions of IWBs during the teaching process. However, teachers again had positive attitudes towards IWBs for their EFL classrooms with proper training in order to enhance learning and fulfilled two research question as mentioned above.

5.2: Attitudes of administrators towards the use of IWBs in EFL classrooms

When it came to English Language Institute and its administrators, they thought and made sure that EFL teachers definitely needed to benefit from technology advances. However, they wanted to make sure that they were not going to replace old technology again with the old technology, which they already had it installed in EFL classroom, for example, whiteboards, projectors, laptops, and CD players. As mentioned in Higgins, Beauchamp and Miller's (2007) literature review on IWBs, even though the use of IWBs might change the way that learning takes place, IWBs may not have a significant impact on achievement. This showed that real teaching depended on teachers' abilities, creativity in techniques and intents in general. One of the questions identified whether the administrators supported the use of IWBs in EFL classrooms.
One of the administrators referred largely to technical support and indicated that they would need to provide the technical support as well in any form of technical problem, need to spend money for increasing the quality of the technological infrastructure of the classrooms, and assign some trained teachers to train new coming teachers. Also, financial administrator indicated that they would provide the training sessions for the teachers and students in future. These few statements showed that they liked the idea of IWBs in our EFL classrooms and they wanted to increase them more in three different English buildings. One of the administrators said:

"However, like course books, traditional non-electronic whiteboards, dictionaries etc - it is just a tool - how it is used and for what purpose is critically important. I have observed teachers in my previous job who were real experts with IWBs and created attractive and visually stimulating pages on their IWBs. However, some of these teachers relied on the IWB too much. This made their lessons too teacher-centered and the learners spent most of the lesson focusing on the board, and not enough time engaged in small group activities in which they could practice the language they'd been taught in communicative tasks (Curriculum Head)." Also, it fulfilled the third research question where majority of administrators at English language institute supported this technology.

5.3:  The actual use of IWB technology in EFL classrooms

Two hours of observation of two different lesson plans at English Language Institute proved that students and teachers were easily able to use the basic functions of IWBs, for example, how to highlight, write with special pens, use software, save the materials, search on the internet and how to play audio and visual files. Levy (2002) informed that teachers spent less time in writing
classes because of IWB, because the teacher presented ready-made sample paragraphs and
letting the students work on them. In this research, teacher was able to grab students' attention,
motivated them and controlled the whole class. He was also able to display different pictures on
IWB to show the differences of comparative and superlative adjectives. He was able to show the
video where students were able to imitate at the end in order to reinforce those ideas in their
conversation. Students were able to use IWB by their own on clicking pronunciation and
listened to them again and again. They were able to match pictures with words and how to use
them in sentences on IWB. Lessons were found very interactive and motivated all the students
and they had positive attitudes towards IWBs in their observed lessons.

5.4: Factors affected teachers and students' attitudes towards IWB use

In this section, part of the questionnaire was performed initially to explore the relation between
participants' attitudes and different variables, for example, age, experience and hours of IWB
use. It was speculated in terms of the teachers that their hours of IWB use, difference of age and
work experience might affect their attitudes towards the use of IWBs. However, these factors
correlated with their attitudes while linked this IWB technology in order to find certain attitudes
towards IWBs. According to above data in terms of teachers' attitudes, research identified that
mostly teachers used IWBs for longer hours, for example, eleven or more hours out of eighteen
hours per week teaching. So this finding revealed that this technology has been appreciated by
teachers and students positively. On the other hand, regards to the factors affected students’
attitudes and different variables, for example, their age and hours of IWB exposure. One
significant relation was found between students and IWBs where students majority of students
spent most of time learning English as a Foreign Language through IWBs. So this helped them to understand the degree of difference between traditional and interactive whiteboards. Further, forty-three students claimed that they loved to use IWB in front of the class and they loved to have their work shown in front of the class for correction. As a result, this discussion on data revealed that students, teachers and administrators had positive attitudes and perceptions towards the use of IWBs in their EFL classes and they planned to have them installed in three different English buildings at English Language Institute.
9. Conclusion

6.1 Pedagogical implications of the study

The results of this study proved that IWBs have been appreciated by students, teachers and administrators, but IWBs have been using only in three classes in English building 30 and in auditoriums in other three buildings. Therefore, majority of students complained that every classroom should be equipped with IWBs. So they can all get benefits from IWBs technology at the end. There are some other problems as well, for example, lack of equipment and time and lack of confidence (Ertmer, Addison, Lane, Ross and Woods, 1999). The second barrier can be resolved through professional guidance and assistance. As a result, teachers can feel more confidence and keen to benefit from IWBs. Also, administrators can arrange focus groups and meetings with experienced teachers on IWBs in order to establish the network among teachers in terms of materials, resources, counselling on IWBs and encourage teachers to exploit this technology with the assistance of experience teachers. One of the major implications is a proper need of training for teachers. As Hall and Higgins (2005) stated in their study that training sessions should be regular and should be viewed as a continuous process so that teachers can improve their ICT skills in order to use IWBs efficiently. This issue is also mentioned in Smith (2005), where they note that in order to use IWBs to their full potential, there is a need for adequate training because inexperienced manipulation of IWB feature decrease the value of this technology. According to this research, few teachers claimed that they were able to use this without a proper training. However, training can be provided by administrators to those individuals.

Mostly teachers agreed in this research that they used IWBs in order to enhance the learning process. Therefore, it is advisable for administrators to purchase IWBs for every classroom. So
students do not have to change their classrooms for IWB-based lessons. Administrators should know that there are some publishers who have prepared IWB-based material and there are a wide variety of resources on the internet suitable for IWB use. So administrators and teachers with their committees can contact to those publishers who can provide custom-made materials and books for IWBs. Another potential problem with using ready-made material is that not many books are prepared with software programs, which can limit teachers’ choice. If they get IWBs with software and materials, this way teachers can save their time in preparing extra materials for their EFL classes. Finally, administrators and educators should make sure that they are aware of the benefits of these IWBs before they purchase it. Because there are different trademarks in the market and the cost of the technology should be considered as well. If administrators intend to equip all the classrooms, low cost of IWBs would be appropriate. It should also be noted that there are some classrooms who are larger than other classrooms, so it is important and appropriate to purchase bigger IWBs according to sizes.

6.2 Limitations of the study

This research has concluded that there are some limitations, which were found from analyzing the data. Initially, the research and study was only done on English Language Institute where seventy-one students, thirty-one teachers and six administrators participated. This research was not expanded due to time limit because researcher wanted to compare the use of IWBs in ELI and other departments such as engineering college, math and science departments. Secondly, data was not collected from female teachers, students and administrators due to strict Islamic law. According to this law, male and female studies should be segregated and no male or female can enter each other's campuses without any permissions from higher authorities. Therefore, this study is limited because of this issue. Thirdly, only two lessons were observed to see the actual
use of IWBs in English classes, was also limited. Further, IWBs are being used on a very low scale such as for meetings, focus groups and few English classes where students complained and asked to have IWBs in their classes as well. Similarly, the study is limited by the few participations of administrators because time constraints did not allow for more.

6.3 Suggestions for further research

As this research investigated the attitudes and perceptions of teachers, students, administrators and IWBs class observations. But it should further be researched with the data of female students, teachers and administrators because they may add more to this research. Also, the effectiveness of this technology should be examined more in EFL classrooms. Although it claimed that it has a great impact in EFL teaching and learning process but it still has not yet been confirmed with only two observations. It has to be more than 10 observation with different levels and with different teaching experience of teachers, for example, native and non-native teachers. It should also be conformed that what are exactly the real contributions of this technology through experimental studies in language learning settings. If one does not find much contribution to learning, investment in this technology would be questioned and administrators may rethink before they purchase this expensive technology.

The data, results and findings of this research have proved that both students, teachers and administrators have positive attitudes towards IWBs use in EFL classrooms. These IWB-based lessons have proved that they are more enjoyable, interesting and enthusiastic than traditional teaching using whiteboards. Also, it is proven that IWB-based lessons motivated students more and grabbed their attentions more and they participated as well in different activities. These above mentioned contributions are significant for the enhancement of the quality of education.
Although there are some technical problems which students complained during their lessons, for example, the breakdown of the screens, but it still seems to be appreciated by teachers and students with its full benefits, features and advantages. On the other hand, teachers and students should have a proper training in order to receive full benefits. Because students at ELI (English Language Institute) are keen and eager to learn new technology and they use it for their learning as well. English Language Institute should be encouraged to have this technology installed for their EFL classrooms because they do not want to fall behind technologically like developed countries, where they use technology side by side in their educational settings. Since these ELI students and teachers have already felt the difference by using this technology, they will likely become more enthusiastic about using it now. Now-a-days technology is easing our lives in many areas, therefore, EFL classes can also get benefits largely with this and in this way, teaching and learning can be enhanced.
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11. Appendices

7.1 Questionnaire: protocol with ELI Management and Coordinators:

Your Name: __________________ Position at ELI, KAU: __________________________

1. What do you think about the use of IWBs in our ESL/EFL classrooms? Is it essential or not?
   A. Yes, it is essential and it should solely be used to teach student.
   B. It should be used for entertainment as well for students.
   C. It should serve a purpose in order to enhance students' learning to achieve learning outcomes.
   D. Others __________________________________________________________________

2. Do you think that EFL teachers and students both can get benefits from IWBs technology and how?
   A. Yes, staff and students may get benefits according to their needs.
   B. No, it should not be used right now because students and teachers are not ready to accept it.
   C. Others __________________________________________________________________

4. What factors would influence you to purchase IWB technology for ELI?
   A. Yes, if a positive feedback comes from students and teachers, we may think about it. Also, it can create a huge difference between traditional teaching and IWB-based teaching. It can definitely enhance students' learning in our EFL classrooms.
   B. No, we cannot buy this for every classroom because it is very expensive.
   C. Others __________________________________________________________________

5. What would be the most common problems for EFL teachers using IWBs here at ELI classrooms?
   A. Teachers are not trained for IWB.
   B. Students are not ready to accept it.
   C. Management is not in a favour of buying it.
   D. Others ____________________________

6. What would be the benefits of IWBs in English teaching settings?
   A. It will enhance students' learning.
   B. It will make our teachers organized in their lesson planning, presentation and implementation.
   C. It will motivate students.
   D. It will engage the whole class.

Web Link: https://www.surveymonkey.com/s/JBNXG682
Dear Colleagues:

I am currently enrolled in the MA TESOL Program at University of Sunderland, England. Recently, I finished my taught modules and now I have planned to write a thesis, where the aim of my research study is to investigate the attitudes of students and teachers towards the use of interactive whiteboards (IWBs) in our EFL classrooms. I am also examining the similarities and differences between the perceptions of students and teachers towards the use of IWB technology and factors affecting students’ and teachers’ attitudes towards this technology in language instruction.

Questionnaires for students and teachers are the first phase of my study. Interviews with administrators will be the second phase of my study. Moreover, class observations will be carried out to see the actual use of IWBs in English lessons in bldg 30. I assure you that all the data provided from questionnaires, interviews, and observations will be kept strictly confidential in reports either with me or with my thesis supervisor. Therefore, I need your support here to complete this questionnaire on the given link below. It will take only 10 minutes to complete. Also, I encourage those instructors and appreciate them to complete this questionnaire who have used IWBs previously and those who have got the training on IWBs at ELI couple of years ago.

**Web Link: https://www.surveymonkey.com/s/PS9K29Y**

If you have any questions, please do not hesitate to contact me or my thesis advisor, Dr. Katie Mann.

Thank you in advance for your help and cooperation.

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7.3 Teachers' questionnaire

Section I: General Information

1. Your age:
   - 20-25 _
   - 26-30 _
   - 31-35 _
   - 36-40 _ 41-45 _
   - 46-Above _

2. Gender:
   - Male _
   - Female _

3. Years of teaching experience:
   - 1-5 years _
   - 6-10 years _
   - 11-15 years _
   - 16-20 years _
   - 21- above _

4. How many hours have you taught with an interactive whiteboard in English classes in a week?
   - 1-2 hours a week _
   - 3-5 hours a week _
   - 6-10 hours a week _
   - 11 or more hours _

5. For which language skills, did you use IWB technology most?
   - Writing _
   - Speaking _
   - Reading _
   - Grammar _
   - Integrated Skills _

Section II: General Attitudes

For the following items, please circle the answers that best show your opinion. (□)
1= Strongly disagree 2= Disagree 3= No idea 4= Agree 5= Strongly agree

1. Using IWB-based resources reduced the time I spent in writing. 1 2 3 4 5
2. When used IWBs in the classroom, I spent more time for the preparation of the lesson. 1 2 3 4 5
3. I think using IWBs makes it easier to reach different sources and display them to the whole class immediately. 1 2 3 4 5
4. IWBs are beneficial to be able to save and print the materials generated during the lesson. 1 2 3 4 5
5. I was able to give more effective explanations with the use of IWBs. 1 2 3 4 5
6. With the help of using an IWB, I could easily control the whole class. 1 2 3 4 5
7. I think IWBs can be a good supplement to support teaching. 1 2 3 4 5
8. Using IWBs made me a more efficient teacher. 1 2 3 4 5
9. Using IWBs made it easier for a teacher to review, explain, and summarize the subject. 1 2 3 4 5
10. I like using IWB technology in my lessons. 1 2 3 4 5
11. I felt uncomfortable in front of my students while using IWB. 1 2 3 4 5
12. I have positive attitudes towards the use of IWBs in language instruction. 1 2 3 4 5
13. I have negative attitudes towards the use of IWBs in language classes. 1 2 3 4 5
14. I do not think my students are ready for this technology. 1 2 3 4 5
15. What I do in class with traditional methods is sufficient in teaching English. 1 2 3 4 5
16. I am not the type to do well with IWB-based applications. 1 2 3 4 5
17. I think IWBs make learning more enjoyable and more interesting. 1 2 3 4 5
18. I believe that training is required to teach with IWB technology. 1 2 3 4 5
19. If I do not get sufficient training, I will not feel comfortable with using IWBs in classrooms. 1 2 3 4 5
20. I can keep my students’ attention longer with the help of IWB technology. 1 2 3 4 5
21. I think IWBs increase the interaction and participation of the students. 1 2 3 4 5
22. I think my students will show more motivation if I use an IWB in my lessons. 1 2 3 4 5
Section III: Additional ideas and suggestions

1. Is there any other comment you would like to add about the use of IWBs:
........................................................................................................................................

2. Any problem or suggestion about the use of IWBs: ........................................
........................................................................................................................................

Thank you

Web Link: https://www.surveymonkey.com/s/PS9K29Y
HTML Code: <a href="https://www.surveymonkey.com/s/PS9K29Y">Click here to take survey</a>
7.4: Students' questionnaire

Attitudes of teachers and students towards the use of IWBs in English as a Foreign Language classrooms:

المواقف من المعلمين والطلاب نحو استخدام شاشات الشرح التفاعلية في اللغة الإنجليزية لغير الفصول الدراسية اللغة الأجنبية:

Students' Survey:

Section I: General Information

1. What is your age?

ما هو عمرك؟

15-19
20-25
26-Above فوق

2. What is your gender?

ما هو جنسيتك؟

Male ذكر
Female أنثى

3. What is your level?

Level 1 - Beginner
Level 2 - Elementary
Level 3 - Pre-Intermediate
Level 4 - Intermediate

4. Are you familiar with Interactive Whiteboard?

هل أنت على دراية شاشة الشرح التفاعلية؟

Yes, I have used it.
Yes, I know about it, but I have not used it yet.
No, I don't know about it.

Section II: General Attitudes

For the following items, please circle the answers that best show your opinion.

1= Strongly disagree 2= Disagree 3= No idea 4= Agree 5= Strongly agree

1. I can learn more if my teacher will use the interactive whiteboard.
2. Also, it will be easy to understand the lesson if my teacher will use an interactive whiteboard.

<table>
<thead>
<tr>
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3. IWBs will make my teacher's drawing, diagrams and lessons easier for me to see and understand.

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4. Through IWB it will be easy to comprehend and how to use audio and visual material.

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5. IWB will help me to learn from different sources.

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6. Sunlight and deficiencies can make it difficult to see the things on the IWB.

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7. IWBs may break down and cause a waste of time.

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8. I will go in front of the class to use the Interactive White Board without any hesitation.

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9. It will be difficult for me to use the IWBs without proper training.

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10. I will prefer those lessons which will use IWBs.

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11. I will feel terrible when my work will be shown on IWB in front of the class.

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12. I concentrate better when my teacher uses an IWB.

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13. I will participate more if my teacher will use IWB.

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14. IWBs will make my learning interesting and exciting.

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15. IWB will be the best source to grab students' attention during the lesson.

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16. IWB will motivate me to learn English as a second language.

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17. With an IWB, it is hard to keep up the pace.

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18. IWB will make my teacher organized in his/her lesson.

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19. IWB can save the time.

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20. I don't see any difference between my teacher's traditional teaching and teaching on IWB.

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21. I think so there is not much difference between IWB and normal whiteboard.
أعتقد ذلك ليس هناك فرق كبير بين شاشة الشرح التفاعلية والألواح الكتابة العادية.

Section III: Additional ideas and suggestions

1. Is there any other comment you would like to add about the use of IWBs?
هل هناك أي تعليقات أخرى ترغب في إضافة نحو استخدام شاشة الشرح التفاعلية؟

2. Any problem or suggestion about the use of IWBs:
أي مشكلة أو اقتراح حول استخدام شاشة الشرح التفاعلية:

Web Link: https://www.surveymonkey.com/s/GS6WLWG
7.5: Approval

Dear Haseeb,

I hereby grant you to access the data from teachers, male students and management. However, Mr. Haseeb cannot have an access to female students. Because it is restricted according to Islamic Shariah law.

Regards,

Dr. Tariq Elyas
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English Language Institute
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King Abdul Aziz University
Jamia Street, Jeddah
21589 - Kingdom of Saudi Arabia
Tel: 02-6951459
Email: telyas@kau.edu.sa