

**ENGLISH LANGUAGE INSTRUCTORS' PERCEPTIONS AND USE OF  
INTERACTIVE WHITEBOARDS IN ENGLISH AS A FOREIGN  
LANGUAGE CLASSROOMS**



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INTERACTIVE WHITEBOARDS IN ENGLISH AS A FOREIGN  
LANGUAGE CLASSROOMS**

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Approval of the Graduate School of Educational Sciences



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I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Arts.



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This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.



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## **ABSTRACT**

### **ENGLISH LANGUAGE INSTRUCTORS' PERCEPTIONS AND USE OF INTERACTIVE WHITEBOARDS IN ENGLISH AS A FOREIGN LANGUAGE CLASSROOMS**

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The purpose of this study was to investigate the perceptions of English language instructors about the use of interactive whiteboards in EFL classes and to find out how and for what purposes they use interactive whiteboards in English preparatory classes in a private university in Turkey. This case study was conducted using qualitative research methods in order to gather detailed information. The qualitative data were obtained through a survey, observations and semi-structured interviews. A sample of thirty-six EFL instructors who worked at a foundation university in Istanbul voluntarily participated in this study by taking the online survey, and five instructors among these 36 participants were purposively selected for classroom observation and interview. The findings of the study showed that most of the teachers had positive perceptions towards the use of interactive whiteboards in their classes and they think that IWBs are useful teaching tools in language teaching. EFL instructors use IWB to attract students' attention by integrating authentic materials and multimedia. Besides, the interactive whiteboards were mostly used to show the course book and most of the instructors determined the factor for effective use of interactive whiteboard as students' active participation in their own learning.

Keywords: Interactive Whiteboard, EFL, EFL Instructors, Perceptions

## ÖZ

### İNGİLİZ DİLİ OKUTMANLARININ YABANCI DİL OLARAK İNGİLİZCE ÖĞRETİLEN SINIFLARDA ETKİLEŞİMLİ TAHTA KULLANIMLARI VE ETKİLEŞİMLİ TAHTA KULLANIMINA KARŞI ALGILARI

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Bu çalışmanın amacı, İngiliz dili okutmanlarının etkileşimli tahta kullanımına yönelik algılarını araştırmak ve etkileşimli tahtanın bir vakıf üniversitesinin İngilizce hazırlık sınıflarında nasıl ve hangi amaçlarla kullanıldığını incelemektir. Mevcut vaka-çalışması, detaylı bilgi toplamak amacıyla nitel araştırma yöntemleri kullanılarak yürütülmüştür. Nitel veriler anket, gözlem ve yarı yapılandırılmış görüşmeler vasıtasıyla toplanmıştır. İstanbul’da bir vakıf üniversitesinde çalışan otuz altı İngilizce okutman bu çalışmaya çevrimiçi anketi doldurarak gönüllü olarak katılmıştır ve bu otuz altı katılan arasından beş okutman maksatlı olarak sınıf gözlemi ve görüşme için seçilmiştir. Çalışmanın bulguları öğretmenlerinin çoğunun etkileşimli tahtanın dil sınıflarında kullanımına yönelik olumlu algıya sahip olduğunu ve etkileşimli tahtaların faydalı öğretim araçları olduğunu göstermiştir. İngiliz dili okutmanları etkileşimli tahtayı özgün materyal ve multimedya entegre ederek öğrencilerin dikkatini ekmek kullanıyorlar. Bunun yanı sıra, etkileşimli tahtanın okutmalar tarafından daha çok ders kitabını göstermek için kullanıldığı saptanmıştır ve okutmanlar etkileşimli tahtanın etkili kullanılmasının bir etkenini öğrencilerin kendi öğrenmesinde aktif katılımı olarak belirlemiştir.

Anahtar Kelimeler: Etkileşimli Tahta, İngilizce Yabancı Dili, İngilizce Okutmanları, Algılar

To my parents and husband



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# Chapter 1

## Introduction

### 1.1 Overview

We live in a world where technological developments affect people's life in different ways. Since ignoring these developments is almost impossible, it is inevitable to see the effects of these technological developments in education. During the last two decades, the use of technology, specifically for language instruction has increased rapidly in many countries around the world. For the purpose of increasing the effectiveness of teaching and learning, particular types of technology are starting to be used in education, such as, computers, class websites, blogs, mobile phones, interactive white boards, and so on.

As Gudanescu (2010) indicates, various types of content are delivered and different purposes are served in the classroom by different technologies such as computers, interactive whiteboards, tablets, projectors, the Internet, audio equipment, etc. The Interactive Whiteboard (IWB), which is one of the newest technological developments in the field of education (Cogill, 2002; Tataroglu & Erduran, 2010) and provides a large image for collective viewing, differs from other initiatives in so far as it is a tool for use by teachers (Cogill, 2002) and is considered as a helpful tool to enhance students' learning and motivation. As a result, integrating this new technology into education is not only a tendency that educators show nowadays but also a major policy of education (Lan & Hsiao, 2011).

Interactive whiteboards are used at different stages of education at every level. According to Bannister (2010), "to some, interactive whiteboards are the next best provision to improve learning and teaching, whilst to others, this technology is a long-standing resource" (p.3). As a result, a great deal of money has been invested in IWBs in countries, such as, UK, the USA, and Australia, which are technologically developed. In the Turkish educational system; also, a huge amount of investment has been made on IWB in recent years with the aim of integrating technology into education, improving the quality of the education, and providing equality of opportunities in education. However, purchasing and installing IWB does not mean a successful integration of technology. Being aware of the possible benefits of IWB is

necessary for administrators, teachers and students for the effectiveness of this technology, which means further background knowledge and research is needed to get the maximum benefit from this technology, particularly in language teaching and learning settings (Elaziz, 2008).

When the full potential of IWB, as a teaching aid, is noticed and it becomes a part of regular classroom instruction, teaching can be stimulated (Glover & Miller, 2001). The mere introduction of this technology will not revolutionize the classroom; it is dependent upon the methodology and addressing strategic management issues at all levels (Bannister, 2010). Therefore, it can therefore be said that since IWBS are becoming an important part of foreign language and learning, it is useful to be aware of the potential of IWBs. It is important to know how to integrate this new technology into teaching effectively through analyzing its actual use in the classrooms and teachers' perceptions on IWB use in classrooms. This empirical study aims to explore the perceptions of EFL instructors' on IWB use in English as a foreign language classrooms and their actual use of IWB in their classes.

## **1.2 Theoretical Framework**

Use of interactive whiteboard, which is one of the many technological developments used in schools, has become widespread in many countries. "This proliferation has taken place despite the nontrivial cost of purchasing and maintaining IWB technology and the sometimes-considerable burdens of training staff to use them effectively" (Torff & Tirota, 2010, p.379). So a number of studies have been undertaken by researchers with the aim of determining its implications in education. These studies show that IWB is seen as offering a range of benefits, including motivation and engagement, enjoyment, high level of interaction, enticing students to learn, increasing teaching time, promoting enthusiasm for learning, supporting different learning styles, enhancing teaching by supporting classroom management, pace and variety and drawing attention to grammatical features and patterns (Al-Faki & Khamis, 2014; BECTA, 2003; Bell, 2002; Elaziz, 2008; Gray, Hagger-Vaughan, Pilkington & Tomkins, 2005; Hall & Higgins, 2005; Jelyani, Janfaza & Soori, 2014).

As well as offering benefits, according to some studies there are also drawbacks of using IWBs. For example, Al-Faki and Khamis (2014) found out that

English language teachers face challenges when they use IWB in English language classes due to many reasons. Those reasons are teachers' lack of computer competency, breakdown in the common understanding of the schools' goals among those who hold the decision-making power, insufficient ongoing technical support and the learners who are more familiar with technology than their teachers are. Those challenges interact to hinder IWB integration into teaching and learning English language. Furthermore, Gray, Hagger-Vaughan, Pilkington and Tomkins (2005) identified some important points about the use of the IWB;" the need to become more comfortable with the technology before being ready to engage in pedagogical discussion, the dramatic increase in preparation time to support full exploitation, the danger of being lured into a 'show and tell' interpretation of teaching, the need for IWB use to be underpinned by a sound understanding of language teaching methodology, the need for a balance of activities to ensure opportunities for kinesthetic and tactile learners, and the difficulty of finding web-based material at the right level for language learning" (p.38).

According to Glover and Miller (2001), IWBs are used in one of the three ways; as an aid to efficiency, as an extension device and as a transformative device i.e. to enhance screen size to, improve vision of video material, to integrate multimedia materials to the point that teaching is improved or to improve learning through board interaction and associated group and class discussion. As a result, to keep pace with new technological developments, to increase their professional development and to contact positively with their students on a regular basis teachers need to integrate technology into their teaching (Jelyani, Janfaza & Soori, 2014). One important question that should be raised is: How do teachers integrate this technology into their own teaching? This paper aims at contributing to a better understanding of EFL instructors' attitudes and use of interactive whiteboard in English language teaching in preparatory classes in Turkey.

### **1.3 Statement of the Problem**

The use of IWB in language teaching has increased dramatically lately as IWB is claimed to have a number of benefits for students and teachers by facilitating learning and increasing students' motivation. Even though IWB is not considered a new teaching tool in education, the use of IWB in language teaching in Turkey is



relatively new which limits the number of studies in the literature relating the teachers' perceptions towards IWBs, especially EFL instructors' perceptions. The literature lacks of studies surveying specifically the integration of IWB in language teaching in preparatory schools. Therefore, it is crucial that English language instructors' perceptions of the use of IWB in language teaching, their use of IWB in their classes and how they see their own use of IWB is explored in a preparatory school context.

#### **1.4 Purpose of the Study**

This study aims to investigate the perceptions of EFL instructors towards the use of interactive whiteboard in the preparatory classes in a private university, and also to explore how and for what reasons IWB is being used by the EFL instructors during their English lessons. The study reveals what EFL instructors think about the IWB use in language teaching in general and how they see their use of IWB during their own lessons and how and for what purposes they actually use it.

#### **1.5 Research Questions**

In the light of above discussion, the purpose of this study is to seek answers to the following questions:

1. What are the EFL instructors' perceptions of the use of IWB?
2. How and for what reasons is IWB being used in an English as a foreign language preparatory class?

#### **1.6 Significance of the Study**

IWB has started to be used widely in education as it offers opportunities to facilitate teaching and learning, as a result, the importance of using IWB in foreign language teaching has been understood and materials have been designed accordingly. However, the role of teacher in integrating this technology into teaching cannot be sidelined. Thus, the perceptions of teachers towards the IWB use and their integration of IWB in their own teaching is of high importance. Yet, little is known about the EFL instructors' perceptions of IWB use and how they really use IWBs.

Therefore, this study will contribute to the literature by investigating EFL instructors' perceptions along with their use of IWB in the real classroom context.

As this study aims to find out the EFL instructors' perceptions of IWB use and their actual use of IWBs in the classroom setting in a preparatory school at a foundation university in Istanbul, the findings will hopefully help researchers and educators to understand the EFL instructors' perceptions and adopt this recent technology in their classes.

## 1.7 Operational Definitions

**CEFR:** Refers to The Common European Framework of Reference for Languages which is a guideline to describe achievements of learners of foreign languages across Europe.

**Coursebook:** A textbook providing the core materials for a language learning course. (Tomlinson, 1998).

**IWB:** Interactive Whiteboard

**EFL:** Abbreviation for English as a Foreign Language

**EFL Instructors:** In this study, "EFL instructors" refers to the English teachers who work at preparatory programs of private universities.

**ELT:** English Language Teaching: The teaching of English to students whose first language is not English (Online Cambridge Dictionary, 2015).

**Learning styles:** Learning characteristics of the learners such as visual, auditory, kinesthetic, experiential, analytic, global, dependent and independent.

## 1.8 Conclusion

This chapter gave a brief summary of the literature about the IWBs. As it is clear from the literature, more studies are needed to examine the actual use of IWBs in current institutions where IWBs are used in English classes. The use of interactive whiteboard is basically associated with the use of technology. In order to use a whiteboard teachers require some computer skills and many resources since interactive whiteboards require these skills to manipulate software applications. The next chapter considers findings from previous research into use of technology and IWB in language teaching, benefits of technology and IWB for teachers and students, drawbacks of using technology and IWB, teachers' and students' perceptions of

IWB, and lastly studies carried out in Turkey on IWBs. The third chapter present information about the current study's participants and settings, instruments, and procedures followed to collect and analyze the data. The fourth chapter is comprised of the procedures for data analyses and the results of the survey study. The last chapter presents a discussion of the findings, pedagogical implications, limitations, and suggestions for further research.



## **Chapter 2**

### **Literature Review**

#### **2.1 Introduction**

As the technology has overtaken every aspect of our lives lately, education has been subjected to many technological changes. This growing interest in using technology in classes has also affected language teaching in order to reinforce language learning. As a result, in an attempt to enhance the teaching and learning environment, classrooms have been equipped with tools and devices (Al-Faki & Khamis, 2014). In addition, teaching techniques based more on technology have started to take the place of traditional teaching techniques (Elaziz, 2008).

The interactive whiteboard, as one of the newest technological developments, is used by educators in recent years with the aim of increasing efficiency of the lessons. As a consequence, the main focus of many studies nowadays is whether IWBs are beneficial, and what teachers and students think about them. There are some studies suggesting that IWBs are beneficial both for learning and teaching (Glover & Miller, 2001, Lan & Hsiao, 2011, Wall, Higgins & Smith, 2005). However, there are also some studies discussing the effectiveness of this newly adopted technology and whether we can take advantage of it (Liu, 2009, Wall, Higgins & Smith, 2005).

This chapter will firstly give a background of technology use and its benefits, then the drawbacks in the use of technology in language classes. After that, IWBs, its use in language classrooms, its benefits for teachers and students, and finally the perceptions of teachers and students will be explained in conformity with the previous studies.

#### **2.2 Technology Use in Language Education**

The role of technology in our lives is becoming more and more important. This increasing importance also triggers the use of technology in language education. Beforehand, audio cassettes were the main types of technology used in language teaching. Yet as time passes by, the use of technology in foreign language teaching

has improved considerably; e.g., radio, video, television, film, computers, language labs with audio and videotapes, and interactive whiteboards were started to be used in language learning (Liu, Moore, Graham & Lee, 2002).

Technology integration in the classroom has become an important aspect of successful teaching (Almekhlafi & Almeqdadi, 2010). Consequently, a concern about how to meet students' needs through technology has been induced by a global increase in the call for language instruction and learning (Liu, 2009). Along with this interest by researchers, teachers are also prepared to explore the potential use of technology in order to improve their own teaching (Glover & Miller, 2001). The role of a teacher as facilitator is important and complex in technology-enhanced environments and involves well-developed instructional skills (Stepp-Greany, 2002). Moreover, Warschauer (1996) adds that effective integration of technology into teaching does not depend on the medium itself, but it depends on how it is put into use.

Additionally, a significant number of teachers of English in Ismail, Almekhlafi and Al-mekhlafy's (2010) study argued that teachers were encouraged by the availability of technology in English programs to utilize technology for different purposes. In addition, when the teachers integrated technology into their curriculum, student motivation increased, the students satisfied their curiosity, learned better and accomplished various learning outcomes (Ismail, Almekhlafi & Al-Mekhlafy, 2010).

Whether integrating technology into teaching provides benefits for teaching and learning is a controversial issue and it has triggered researchers to investigate different aspects of such integration. While some researchers claim that technology is helpful for learning, there are some researchers argued that use of technology, under certain circumstances, even prevent learning. Thus, there is a body of research that emphasize the need for materials to be designed in accordance with individual cognitive limitations, which requires an understanding of how people react to various technological materials when performing a given task (Schmid, 2008). Classroom use of technology may similarly vary considerably depending on the role of the teacher plays in the learning process (Cogill, 2002), therefore teachers should have an idea about the benefits of technology and be selective in choosing and using appropriate materials for language teaching and learning.

**2.2.1 The benefits of technology in language education.** The advances in technology make it urgent for using technology in education as well. According

research, there are many benefits of integrating technology into language education. Stepp-Greany (2002) reported a number of benefits for students related to the general use of technology in classrooms which include increased motivation, improvement in self-concept and mastery of basic skills, more student-centered learning and engagement in the learning process, and more active processing, resulting in higher-order thinking skills and better recall. Additionally, Liu, Moore, Graham and Lee (2002) found that effectiveness of computer technology in second language learning have been proved by a great number studies, for example, the use of visual media supports vocabulary acquisition and reading comprehension and helps increase achievement scores. Moreover, writing skills have been shown to improve by the use of online communication tools by a number of studies.

Furthermore, studies show that students are aware of the advantages and importance of technology both in their English learning and for their future jobs, and most of them think that technology will affect their classroom, school and lives (Liu, 2009). Likewise, students emphasized the potential of technology for helping them to concentrate more during the lesson because of its attractiveness. Students also thought that the use of technology made it easier for the teacher to make the input understandable to the learner through the use of multimedia resources and online materials (Schmid, 2008).

Teachers are conscious of the benefits of using technology as well, and they see it as a tool for promising applications in foreign language learning, for example, acquisition of vocabulary is considered to be enhanced by the interaction between sound, the written word and the image of objects (Schmid, 2008). Besides, teachers thought that technology provides students with concrete tools to use off-line, as well as online pronunciation dictionaries to check and learn the current utterances of new words (Ismail, Almekhlafi & Al-Mekhlafy, 2010).

Moreover, Elaziz (2008) mentions some advantages of computer technology for teaching as using class time more effectively, making the teaching process easier and more flexible, enabling teachers to develop themselves professionally, offering the opportunity to monitor learners more easily, and the opportunity to find numerous resources for teaching. He also states that ready-made materials can enrich the teaching process and give the learners the chance to learn the same topic from different resources. Additionally, students will have access to authentic materials

easily, and improve their language skills with a variety of resources in keeping with their pace of learning, when they are trained how to benefit from technology.

**2.2.2 Drawbacks in the use of technology in language education.** Though there are many advantages of using technology in the class as highlighted in the studies, there may be some problems about integrating technology into teaching. Despite the fact that technology has more advantages when compared with drawbacks, we should pay attention to them while teaching and learning with technology.

The first thing we need to consider is that technology by itself is not enough to make education more effective. According to a review of literature of the Kernel academic journals published in China from 2000-2007, some educators emphasize the importance of interaction between teacher and students in the English class and make a stand for the idea that it cannot be replaced by any means of technology (Liu, 2009). Additionally, Elaziz (2008) also states that since computers are dependent on teachers, it is not possible for them to take teachers' places. In addition, teachers should not have too much expectation from computers; e.g., a computer is incapable of conducting an open-ended dialog in the target language; or a computer can only show the correct answer or underline it to show that there is something wrong with it, while a teacher can make error correction by giving feedback dialogically. Additionally, whereas teachers are able to prepare and modify their techniques in compliance with their students' needs, technology cannot handle unforeseen questions and responses from students. Hence, technology can only be a facilitator and supplementary tool for different kinds of activities in language classes.

In his study, Liu (2009) reveals that the advantages of technology in English learning are realized by students; yet students' attitudes are affected in a negative way by complexity/simplicity of technology. Multiple representations of information do not always help learning, indeed under certain circumstances, materials might even hinder learning (Schmid, 2008). He also states that some of the obstacles of learning English through technology are the insufficiency in the effective use of technology in classrooms and lack of professional help for teachers in technology. There is a feeling among most of the teachers that they cannot develop technology and the materials for successful use as it takes too much time and they do not have enough time. Along with being enthusiastic, teachers need to be trained to be able to

use technological tool such as IWBs with its full potential (Wall, Higgins & Smith, 2005). When teachers fail to use technology adequately in the class, neither learners nor teachers will have the full advantage of technology based learning and teaching facilities (Hall & Higgins, 2005).

### **2.3 Interactive Whiteboards**

Up to this point, literature on technology in language classes and relevant topics were discussed. In this section, definition of IWB, ways of IWB use in language classes, benefits of IWBs for teachers and students, drawbacks of using this technology, and finally attitudes of teachers and students towards IWB will be discussed.

As Schmid (2007, p. 120) defines “the interactive whiteboard is a touch-sensitive electronic presentation device” and it is a multipurpose and flexible tool which can be used in all levels of education (Lan & Hsiao, 2011). Harris (2005) states that there are three types of interactive whiteboards. The first type is composed of an infrared/ ultrasound kit that can be fixed to an existing conventional whiteboard, which is not as functional as an active board. The second type is a passive whiteboard which is sensitive to finger manipulations and more functional than an infrared kit. The third one is the active whiteboard that is used with both a special pen and a human finger. Also, Summet, Abowd, Corso and Rehg (2005) explain that there are two forms of interactive whiteboard, which are front projection and rear projection. Despite having advantages in terms of interactivity and cost, front projection is disadvantageous because it has a projector mounted on the ceiling in front of the projection screen, which causes a shadow of the presenter standing in front of the screen. On the other hand, rear projections do not have the shadow problem as they have a projector behind the whiteboard, however; their limitations due to the cost and installation requirements make these whiteboards disadvantageous.

The IWB is generally used in the regular whole classroom as a multimedia platform and a great variety of ICT tools, such as digital videos and audio files, PowerPoint slides, websites, along with the facility to highlight, annotate, drag, drop and conceal linguistic units (Schmid, 2007). The British Educational Communications and Technology Agency (BECTA, 2003a) specifies the potential



application of IWBs as “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” (p. 2). Therefore, IWB, as a teaching tool and learning resource, is one of the technologies that has changed the classroom activities and teachers’ role through which a teacher can bring the outside world into the classroom (Al-Faki & Khamis, 2014).

**2.3.1 IWBs in language education.** Supporting English language teaching with a computer technology like smartboard is seen as an inevitable necessity. As a facilitator of classroom language learning, the potential of IWB technology is in the center of the increasing attention (Schmid, 2007). A tool such as the IWB can offer new possibilities for a teacher, but it is as the servant of pedagogy and not its master. The effective use of the IWB as an educational tool is not inherent in the hardware, software or even the materials it displays, but rather it is predicated upon the teacher’s practical understanding of how to engage students and to help them learn (Mercer, Hennessy & Warwick, 2010). Additionally, Bell (2002) claims that the IWB is an innovative and supportive device in language teaching and with proper planning, preparation, and training, it could be a powerful instructional tool, which can be adapted for use with a wide range of subjects and ages.

Gerard, Greene and Widener (1999) assert that IWB supports the teaching process of foreign languages in three ways: 1) it helps the presentation of new linguistic and cultural elements, 2) it supports interaction with the class and 3) it promotes the teachers’ organizational skills. The interactive whiteboard also supports and enhances a wide range of English as a second language activities: brainstorming sessions, error analysis, editing drafts with highlighters or pens in different colors to analyze grammatical, syntactical or vocabulary features, planning, editing and proofreading drafts of written genres with the whole class, word order analysis, note taking, grammar practice and many others (Jelyani, Janfaza & Soori, 2014).

Moreover, there is a large quantity of studies underlying positive perceptions on the impact and potential of IWBs in language teaching. Schmid (2008) argues that the IWB lends itself well to the effective integration of multimedia in the regular whole class language classroom because it enables seamless and easy access to multimedia resources in conjunction with the facility to highlight, annotate, drag,

drop and conceal linguistic units. Besides, thanks to its visual, audial and interactive functions, teachers may create more meaningful and motivating English lessons. Additionally, IWBs are seen as the opportunity to bring class different types of multimedia: graphics, video, animations, pictures and audio. Taking the advantage of a device like IWB, which has the interactive and audio-visual functions, teachers may design effective English lessons.

IWBs are mostly used as a tool for demonstration, exposition or instruction which contributes in learning in many very good lessons (OFSTED, 2002). These large touch-sensitive screens seem to be the first type of educational technology suited for whole-class teaching and learning (Gillen, Staarman, Littleton, Mercer & Twiner, 2007), which provides much more than just a large bright attractive image for whole class viewing (Cogill, 2002). However, the impact of IWB on learning is particularly based on how the teacher structures the activity and how students orchestrate the features of the setting (Kennewell & Beauchamp, 2007). To use an interactive whiteboard beyond just as an electronic chalkboard, requires prior experience in using a computer and some prior skills in manipulating software applications (Cogill, 2002).

Similarly, in Gray et al.'s study (2005), the participants highlighted some points on effective use of IWBs in the class. Firstly, teachers need extra time for planning and preparation since the potential to bring the wider world into the classroom will remain unfulfilled unless they have more time and support to exploit it. In addition, teachers need to realize that IWBs are a support for good language teaching not a panacea, so they should make a balance and include a range of practical, hands-on kinesthetic activities. Additionally, teachers should be careful with their style of teaching as the IWB in conjunction with PowerPoint can lead teachers to a "show and tell" role and push students into a passive role. Moreover, in large classes, it is practically impossible to involve all learners even during genuinely interactive IWB work; as a result, pair work is a vital language practice tool to supplement whole-class IWB. Bannister (2010) also points out that the IWB should largely be considered as a whole class technology. With this in mind, teachers need to consider how long it should be used within the lesson, and whether or not it is appropriate to use the technology for the whole lesson. Likewise, two main implications about the use of IWB effectively have been pointed out in Schmid (2008)'s research: (a)the importance of balancing the amount of representations that

are provided to the students in order to avoid cognitive overload and (b)the importance of encouraging students to engage actively with multimedia resources so that they can process the information more effectively.

Moreover, Bannister (2010) points out that if we continue to view IWB as a tool just for integrating technology, we will not even begin to explore the full potential. She recommends that for the effective integration of IWB, it should no longer be seen as the introduction of a magical tool just to motivate or get the attention of students or as a replacement for teacher or existing resources. We have to seek to understand how we can implement the technology for all teachers which requires a huge change management process. The effective implementation requires careful analyses of existing practice, detailed planning and provision of appropriate training and professional development, but this needs to be managed at all levels and linked to other strategic developments to allow the school to ‘normalize’ this technology and it has to be integrated into the curriculum and be planned into whole school development and initiatives. Additionally, long-term training needs to be planned as a part of any effective use of interactive whiteboards. Bannister (2010) also states that a key point in successfully beginning to use the IWB, the teachers need to be able to access the software outside normal lesson times so that it will be much easier for them to develop the necessary skills and do better planning.

### **2.3.2 Benefits of interactive whiteboards and perceptions towards IWBs.**

According to the literature on IWBs, IWBs have various benefits for language teaching, for example, delivering content easily to students, optimizing the teachers’ time and resources (Al-Qirim, 2011), managing the class more easily (Slay, Siebörger, Hodgkinson-Williams, 2008), increasing pace, motivation, engagement, involvement, participation and collaboration (Tanner, Jones, Kennewell, Beauchamp, 2005), and so on. The benefits of IWBs and perceptions towards IWBs were categorized as benefits for students and benefits for teachers and as perceptions of students’ and teachers’ towards IWBs.

**2.3.2.1 Benefits of IWB for students.** From a large number of research we can conclude that IWBs offer several benefits for students. Primarily, Torff and Tirota (2010) claim that for many educators, IWB technology has enormous potential to improve learning and teaching in school and the technological

capabilities of the IWB have a powerful allure for students which is a factor that boosts student motivation. Levy (2002) also states that greater opportunities for participation and collaboration are enabled by IWBs.

The students see the information which is presented through colorful and interactive game-like activities thanks to the IWB as motivating (Yáñez & Coyle 2010). Additionally, effective IWB use in language lessons raises students' self-confidence, enjoyment and motivation. (BECTA, 2003a). Al-Faki and Khamis (2014) also state that IWB use facilitates learner's participation in English language classes by enabling them to interact with materials on the board. Moreover, Tataroğlu and Erduran (2010) found out that using IWB is effective in increasing the interest of students who had low success rates.

Moreover, students have an enthusiasm to use the IWB on their own and to see their work on the IWB (Wall, Higgins, and Smith 2005). In addition to this, when a student came to the board to write up ideas or drag an item into an appropriate position, a high level of engagement of other students was observed and the reaction of the class indicated that all or most students were thinking along with the selected students about what the best action would be (Kennewell & Beauchamp, 2007). Besides, Levy (2002) explains that when students make presentations to their classmates, they seem more creative and self-confident owing to the IWBs.

Besides, through the save and print features of IWBs, the need to take notes by students may be eliminated (BECTA, 2003b; Bell, 2002). Thus, the materials can be shown on the board as a sample or with the aim of improving them (Elaziz, 2008); or after a brainstorming activity copies of resulting documents can be printed and distributed, as well as be saved for future work (Bell, 2002) or they can be used again and shared with other colleagues (Bannister, 2010). Furthermore, the saved lessons can be forwarded to the absent students or lessons can be transferred onto the Web for students to use as a tool for revision at home as well (Tataroğlu & Erduran, 2010).

A debatable benefit mentioned by Smith (2001) is that more effective presentations can be prepared by teachers with the help of IWBs, thus more complex concepts can be handled by students. The students stated that the pictures helped them to understand better what the teachers are talking about (Wall, Higgins, and Smith, 2005). They also pointed out that students appear to enjoy in particular the multi-media capabilities of the technology, especially the visual aspects, audio and

being able to touch the IWB. Additionally, Yáñez and Coyle (2010) found out that the visual elements on the IWB was thought to be a great support which helped their understanding of lesson content delivered in their L2.

Furthermore, Kennewell and Beauchamp (2007) found out that the teachers, interviewed about how they felt IWB affected teaching, learning and attainment, stated that IWB is an effective tool in gaining students' attention, keeping their attention for longer, stimulating thinking and maintaining a focus on the subject matter rather than on the teacher or other students mainly thanks to its large visual display function. IWB software is used to focus learners' attention on salient features of the task and content and to revisit key points during reflective review at the end of the lesson by labelling, highlighting, color-coding, classifying. Besides, one of the benefits of IWBs were identified as teachers' having more time to engage with pupils' learning where language lessons were carefully planned and prepared, with well-chosen and well-sequenced activities ready at the touch of a button (Gray, Hagger-Vaughan, Pilkington & Tomkins, 2005).

Another benefit of IWBs, which Bell (2002) suggested is that different learning styles and intelligences are supported. For example, tactile learners can benefit from touching and marking at the board, audio learners can have the class discussion, visual learners can see what is taking place as it develops at the board; and materials are chosen in accordance with students' needs. Yáñez and Coyle (2010) also mentions the tactile element and versatility of the activities the IWB offers as a major advantage of IWB. Since the teachers draw on a variety of resources to suit different needs and abilities, different learning styles present in any classroom can be better accommodated.

**2.3.2.2 Perceptions of students towards the use of IWBs.** Attitudes of students' towards IWBs have been the focus of studies (Elaziz, 2008; Hall & Higgins, 2005; Wall et al., 2005) as it is important to consider what the students' attitudes towards IWB are to increase the efficiency of teaching with IWBs.

In a study carried out by Schmid (2008), the students appreciated the range of resources that could be accessed through IWB technology and emphasized that the use of multimedia definitely made the lesson more interesting. Besides, they valued this potential and seemed to benefit from it. They, also, often used words like "attractive" and "attention" to describe some advantages of using IWB technology in

class, which means the use of multimedia resources during the lessons attracted their attention and helped to increase their concentration and motivational levels. Moreover, most students agreed that thanks to IWB more time was left for group discussions, and students' active participation in class.

Furthermore, Tataroğlu and Erduran (2010) identified the things students in a public school in Turkey liked most about the IWB, as the features of IWB like its speed, ease of opening an empty page, lack of chalk dust, ease of returning to the subject, the properties of the marker, increase in visuals, the use of animations on the board interactively, the properties of the eraser, the ability to save the things done and the simplicity of drawing and the feature of being able to go back to the subject whenever they wanted.

Students see the information that is presented through colors and movement as motivating and attention grabbing. They also pointed out that IWBs make learning fun and easier and they felt positive about the use of games in lessons (Wall, Higgins & Smith, 2005). For students, lessons based on the whiteboard seem to be more interesting, easy to follow and helpful for those who are having difficulty in understanding. In addition, according to the students' opinions teacher can go back over things if s/he needs it and the teacher has things ready and the lesson then goes better (Glover & Miller, 2001). Many of the students in Schmid (2008)'s study felt that the use of IWB technology helped them to understand the concept of the lesson better and it made the lessons more effective than if it had not been used.

As well as having positive attitudes toward IWB, students also reported some negative thoughts about IWBs. When students were asked what they didn't like about the board, some of them ordered the features that they do not like as the screen's freezing, difficulty in writing and seeing the writing on the board too late, the writing being very big, the untidiness of the lesson, the fast pace of the lesson and the shadow of the person on the board (Tataroğlu & Erduran, 2010).

Likewise, the students in Schmid (2008)'s study felt overwhelmed by the amount of information they needed to acquire in a short period of time. They also stated that when teachers use a great variety of resources to provide more complete explanations, students understand concepts, meanings and ideas with less effort which encourages laziness on the part of students. Besides, the students drew attention to the danger of making things too easy for students, for example, when you take a dictionary or a book and you seek new words, it is far more exercise.

Other negative attitudes of students towards IWB is that they don't have enough opportunity in class to use IWB which they would like to and they wonder how this would be beneficial for them if they don't have this opportunity (Wall, Higgins & Smith, 2005). Additionally, while a small number of students stated that they did not take lessons delivered by using IWB seriously, some of the students thought that it would be sufficient to use only the projector instead of the IWB (Tataroğlu & Erduran, 2010).

Another negative comment by students is about the lack of some equipment related to the individual schools; for instance, speaker or scanner. Furthermore, a student suggested installing something more exciting for English lessons as it can get boring sometimes (Wall, Higgins & Smith, 2005).

Some students also think that IWB use has some negative effects on their teacher; for example, sometimes the pace of the lesson can be fast or teachers' technical knowledge about smart boards may not be enough (Wall, Higgins & Smith, 2005). Similarly, students reported that they had difficulty in following the lesson because the pace of classes done using the IWB is very fast (Tataroğlu & Erduran, 2010).

**2.3.2.3 Benefits of IWB for teachers.** IWBs offer some benefits for teachers as well according to a number of studies. Cogill (2002) claims that IWB enables teachers to use technology in accordance with their existing practice and to gradually build up their confidence and competence. In their study Wall, Higgins, and Smith (2005) investigated students' views on IWBs and results showed that according to students IWB affects teaching positively and makes teachers more creative and more active. Similarly, Gray et al.'s (2005) study results indicated that IWB is a promising technology for improving teaching by reinforcing classroom management, pace, diversity and highlighting grammatical features and patterns. Moreover, Lan and Hsiao (2011) indicated that both teachers' teaching efficiency and students' study motivation are raised by the use of IWB. Additionally, as teachers learned more about the features and techniques of IWB, they noticed that they could improve their presentations and activities, and they felt motivated to improve their materials as making changes became easier (Kennewell & Beauchamp, 2007).

Furthermore, the biggest plus of IWB use is suggested as more self-contained and planned lessons as teachers have to prepare everything beforehand. By preparing

and loading the resources required for a lesson in advance, teachers generated a kind of smoothness in their organizational activity, maintained a momentum to the flow of the lesson and they felt that they kept learners engaged more continuously than with traditional resources (Kennewell & Beauchamp, 2007). Kennewell (2001) also claims that IWBs increase the pace of learning, and teaching can be more flexible and spontaneous as a large number of web-based resources will be available for teachers to use.

Similarly, IWBs are claimed to offer opportunities for the teachers to reach ready-made materials or to create their own materials and resources (Tataroğlu & Erduran, 2010; Kennewell & Beauchamp, 2007). IWB could also bring the outside world inside the classroom by bringing the Internet straight into English classes, thus it enables teachers to use web-based resources in whole class teaching and to provide authentic materials and information (Al-Faki & Khamis, 2014). Besides the whiteboard provides the opportunity for a teacher to share her/his understanding and learning with a large group, such as, the whole class (Cogill, 2002). In addition, to save time in preparing materials, teachers can share materials with their colleagues online (Glover & Miller, 2001).

Finally, Gillen et al. (2007) found that IWBs help teachers in addressing a range of students' needs, and facilitate going forward and backward with the materials of current and previous lessons' to reinforce concepts when required. Likewise, Tataroğlu and Erduran (2010) state that teachers can save the things that are done on the IWB during the class hour alongside the original ones, and they can return to the pages covered whenever they want.

**2.3.2.4 Perceptions of teachers towards the use of IWBs.** It is necessary to be aware of the teachers' attitudes in using interactive whiteboard, as these may affect how they adopt the IWB for teaching. Language teachers state that when they use IWB in the class, students are more attentive and they are more careful about the way teachers introduce material, as their expectations get higher. However, teachers do not see IWB as a solution to the problems in the class, but rather they think IWB can be fostered when the class is submissive and ready to learn (Glover & Miller, 2001).

In a study by Glover and Miller (2001) on the impact of the introduction of interactive whiteboard technology into one secondary comprehensive school, a Head



of an English department explained that teachers felt that their lessons with IWB became more clearly structured and planned and through attempts to prompt multiple intelligences and alternative learning styles in any lesson, learning has improved with confidence and developing skills. Furthermore, teachers, in this study, seemed enthusiastic to advance in technology use and have access to it.

Apart from the positive perceptions, there are some perceptions regarding the drawbacks of using IWB in class. According to a study carried out by Gray, Hagger-Vaughan, Pilkington and Tomkins (2005) and Bannister (2010), time spent for preparing and planning IWB-based lesson is too much for some teachers, but this is dependent on other factors including experience, subject knowledge and intended outcomes (Bannister, 2010).

Another drawback of using this technology according to teachers is that they are afraid of using technology as they think that they do not have enough competence to use IWB (Glover & Miller, 2001). The use of the IWB is intrinsically linked to the use of ICT. In order to use an IWB, teachers need to have some computer skills, many resources, and the skill to manipulate software applications (Cogill, 2002). When asked, the teachers indicated they are conscious of the potential of technology and ready to learn new techniques to develop their teaching, however, they need training to be able to use technology effectively in the class (Glover & Miller, 2001). Additionally, Bannister (2010) found that one of the drawbacks is the lack of appropriate training for the teachers. This made teachers reluctant to use IWB because it exposed their limited ability to use them and access appropriate resources more spontaneously in front of pupils, and they are not aware of the interactive whiteboard resources that are available for specific subjects.

Al-Faki and Khamis (2014) indicate that teachers need training not only in computer literacy but also in the pedagogical application of those skills to improve teaching and learning. Technical support and pedagogical support play important roles in implementing IWB in teaching and learning a second language like English language. Besides, the results of Yáñez and Coyle' study (2010) on children's perceptions of learning with an IWB show that "new approaches in teacher training should be based on both technological and pedagogical principles, for example, learning how to effectively manage the IWB as a teaching resource, developing crucial and creative attitude toward software or materials designed to promote

learning and, particularly, learning how to promote active participation and interaction in the classroom” (p.455-456).

In addition, the researchers stated that some teachers are concerned as the role of the teacher may change because of too much Power-Point use. As a result of using too much PowerPoint, teaching style may change to show and tell which will make the teacher just a presenter of the topic and more passive in the class. Another point that teachers are concerned about is “double preparation” for lessons in case of technical issues or loss of Internet connection and it is not realistic to have a backup plan for every single lesson (Bannister, 2010).

**2.3.3 Drawbacks in the use of IWB.** Along with the opportunities it offers and its easiness to use, there are some important difficulties and drawbacks of IWBs and teachers face some problems while using them. Al-Faki and Khamis (2014) state that English language teachers experience difficulties in integrating IWBs into teaching and learning of English language because of the rapid change of the technological context. Hall and Higgins (2005) reported that the lack of teachers’ confidence to use IWBs may result in poor and limited use of this technology and they suggested that teachers should be trained continuously both technically and pedagogically to increase teacher confidence. Notwithstanding, Cogill (2002) suggest that there is a tacit assumption even by teachers themselves that if they are competent and confident in using technology then they will necessarily use it well and integrate it into their teaching. As access to computers increases, the confidence and competence of teachers’ use of technology may become commonplace but there is insufficient evidence yet to suggest that successful integration of technology in the classroom will follow. The challenge continues in order to make effective use and application within learning and teaching, which is an ongoing process through training practitioners to ensure that the interactive whiteboards are not just the latest technology installed. (Bannister, 2010).

Based on students’ answers, Hall and Higgins (2005) categorized the problems that have a negative impact on lesson as directly related to faults or failings in the technology itself, for example, freezing or crashing; or associated software to something external impacting on the technology, (e.g. sunlight shining on the board preventing students from seeing it properly or the need to reorient/recalibrate the IWB). Both the teacher and the children saw technological problems as very

disturbing (Yáñez & Coyle 2010). Technical problems may also occur more often as this technology is more complicated compared to traditional methods (Elaziz, 2008).

There is also a danger that this expensive and potentially valuable equipment is introduced because it is technology-led which means it is available rather than educational-led that means it is introduced to meet the professional needs of teachers and educational needs of children better than the existing educational tools (Gillen et al., 2007). Some students think that even if IWB is not used in the class, learning can be facilitated adequately by teachers and books, which would not cost much compared to the high price of IWB (Wall, Higgins & Smith, 2005).

Another issue that needs to be considered is that since the IWB allows a seamless access to multimedia resources, there is a potential danger of using the technology mainly to give lessons a crisp pace, instead of focusing on making the best pedagogical use of these resources which results in “spoonfeeding” the learners and over-loading them cognitively. As a result, learners, especially with little prior knowledge, have difficulties to process and relate different representations and to construct coherent mental representations. Thus, an important challenge for teachers who work with IWB-based language classroom would be to find ways of reducing cognitive load and of supporting learners in constructing meaningful knowledge (Schmid, 2008).

**2.3.4 IWB research in Turkey.** There are several studies carried out recently in Turkey regarding the IWB and its use in education which include primary, secondary and high school teachers and students. A selection of these studies are discussed in this section:

Sad and Ozhan (2012) investigated the views of fifty primary students, who had about two years of experience regarding IWB use in their lessons, about IWB use in their classes through focus group interviews. The findings showed that students enjoy the lessons with IWB because of practical and economical use, better visual presentation. Students think that instruction with IWB affected their learning positively, yet they are not comfortable with technical problems and teachers do not use IWBs to their full potential because teachers are not competent enough to deal with the technical problems and carry out an interactive lesson through IWB. Teachers need both technical and pedagogical training.

Similarly, Aytac (2013) conducted a study with 202 students in primary and high school in Ankara to investigate students' viewpoints and the problems they face during the use of IWBs by making use of a survey. According to the study, students generally have positive attitude towards the use of IWBs, yet they identified some problems regarding teachers' inefficiency to use IWB, technical problems, insufficiency of e-materials, radiation and eye health. Moreover, according to the results of the study, it can be concluded that IWB is used mostly for watching the presentations of their teachers and friends, solving problems and connecting to the Internet.

A study was carried out by Cakiroglu (2015) on the 6<sup>th</sup> grade teachers views on the use of IWB in secondary schools and a number of benefits of the IWB use in different disciplines including English were determined. The results revealed that most of the teachers agreed with the overall contribution of IWB use, the main advantage of which is considered as its contribution to the whole class teaching. According to the results, using IWB provides a comfortable atmosphere to enhance classroom teaching, and it helps teachers save time while teaching as it allows users to keep the text and retrieve it again. Additionally, teachers stated that IWB provides them the opportunity to combine various types of materials into the teaching process and to teach more and better understand the lessons especially when the audio and visual materials are presented in an integrative manner. Lastly, it was found that the IWBs are used much more intensively and efficiently in English courses since IWB supports the teaching process of English as a foreign language in presentation, conversation, oral skills and interaction.

The attitudes of Turkish students and teachers toward the use of IWBs in a foreign language teaching and learning context classrooms and the possible factors affecting teachers' and students' attitudes toward IWB technology were also researched in a study carried out by Mathews-Aydinli & Elaziz (2010). Questionnaires were taken by 458 students and 82 teachers in different institutions across Turkey. The study found that both students and teachers have generally positive attitudes towards the use of IWBs in language teaching and are aware of the potential uses of this technology. Furthermore, students and teachers think that the lessons in which IWB is used are more interesting and enjoyable, also students feel more motivated and participate more in the classroom activities. Additionally, the

result indicated that one of the factors affecting the teachers and students' perceptions towards the use of IWB is the time they spend with it.

Celik (2012) explored the competency level of 252 primary school teachers in using IWBs, who had at least one designated classroom with IWB by adapting a self-efficiency scale and a survey. The results of this research showed that even though they are aware of IWB tools and features, the participant teachers are not confident enough in using them and the teachers should be provided with training opportunities to help them to gain skills and confidence, which might ensure the quality of technology integration in classrooms.

Teachers' expectations from computer technology and IWB are examined in another study by Bal, Mısırlı, Orhan, Yucel and Sahin (2010) with the aim of understanding the current use of information technologies and IWB system in the classrooms in Turkey and the common problems with these. According to the result of the study, a large number of teachers use information technologies such as IWB efficiently in their classrooms as they provide convenient and interactive environments for students for activities, teachers are conscious of these opportunities, and they use them actively. Moreover, the common problems were identified as the lack of education software, systems installation, start up, and difficulties on calibration.

The problems that hinder the effective use of IWBs in classrooms in comparison with the previous ICT integration efforts by the Ministry of National Education were investigated by Somyürek, Atasoy and Özdemir (2009). The data were collected through online questionnaires, teachers and student interviews, and document searchers from teachers and students from various Turkish primary and secondary schools. The results showed that teachers avoid using IWBs due to various reasons such as lack of technical competency on how to use IWBs, lack of pedagogical competency on how to integrate them into classroom activities, and lack of a school plan on the use of IWBs. Additionally, the factors hindering the use of IWBs in education corresponds with factors occurring in previous ICT integration projects which are lack of in-service training, digital educational material, support, maintenance, and administration-related concerns.

Tatli and Kiliç (2015) investigated whether the IWBs are really used interactively by examining 535 high school teachers' use of specific features of IWBs by using a three-factor usage level scale developed by the researchers.

According to the results, no important difference was found between the levels of interactivity features and sex, yet it was found that audio-visual interactivity and interactivity as ability were applied more by men. Moreover, the results indicated that teachers' capabilities for applied audio-visual sharing and the use of interactive features increased as their professional, computer and Internet experience and IWB training increased, likewise a linear relationship was determined between the duration of the use of IWB and level of IWB interactive feature use. They also concluded that applied audio-visual interactive features were used by language teachers more than teachers of other subjects.

## **2.4 Conclusion**

This chapter presented the relevant literature about technology and IWBs. The use of IWBs in education dates back to the late 1990s in some developed countries, but technologically developing countries, such as Turkey, IWBs are now becoming more common in educational institutions recently (Elaziz, 2008). Based on the literature, it can be concluded that IWBs offer a great variety of benefits, and teachers and students are aware of these benefits; however, there is a need for adequate training to integrate IWBs effectively in to lessons and to get full advantage of this technology. The next chapter will present the methodology used in this study, including participants and setting, instruments, procedure, and data analysis.

## **Chapter 3**

### **Methodology**

#### **3.1 Overview**

This research particularly concerns teachers' perceptions and their use of IWB in preparatory classes as a Foreign Language context. This study addresses the following research questions:

1. What are the EFL instructors' perceptions of the use of IWB?
2. How and for what reasons is IWB being used in an English as a foreign language preparatory class?

In this chapter the elements of methodology such as research design, setting, participants of the study and procedures will be described. Finally, data collection and data analysis procedures are provided.

#### **3.2 Research Design**

This study was conducted using qualitative research methods in order to gather detailed information about the process of IWB use in prep classes at a university and teachers' perceptions towards its use in their classes. Creswell (2014) describes qualitative research as an approach to explore and understand the meaning individuals or groups attribute to a social or human problem. The process of research includes emerging questions and procedures, data typically collected in the participants setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data.

Furthermore, qualitative research has a variety of benefits for research studies. Mack, Woodsong, MacQueen, Guest and Namey (2005) explain the strengths of qualitative research as its ability to provide complex textual descriptions of how people experience a given research issue. In addition, qualitative research provides information about the human side of an issue, particularly the contradictory behaviors, beliefs, opinions, emotions, and relationship of individuals.

Creswell (2013) also discusses five types of qualitative research: narrative study, phenomenological study, grounded theory study, ethnographic study and case study. For the purpose of this study, the case study research method was applied on

the basis of the description of Creswell, Hanson, Plano and Morales (2007) who describe case study as a “qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time through detailed, in-depth data collection involving multiple resources of information (e.g., observations, interviews, audiovisual material, and documents and reports) and reports a case description and case-based themes” (p. 245).

Taking these definitions and aforementioned advantages of qualitative research into consideration, this study is conducted as a qualitative research. Moreover, this study involves the characteristics of a case study mentioned above. There is a case with a certain institution and its instructors and study takes place in this institution which is a foundation university preparatory school. The data collection tools were all qualitative and they included pre-observation survey, observation and post-observation interviews.

Stake (2005) suggests three types of case study; which are intrinsic, instrumental and collective. Intrinsic study is conducted because the researcher prefers to study on a particular case and interest is intrinsic. The aim is not to build a theory or create a phenomenon at the end of the study but it is about the specific case itself. Instrumental study uses a particular case as a support to generalize the findings and the result of the study. Lastly, in a collective study, several cases are studied to find similarities and differences between the collected data.

Regarding these definitions, this study is both an intrinsic and instrumental case study. It is intrinsic as I am an instructor at a foundation university and I wanted to investigate deeper what EFL instructors think about the IWB use in their classes and how IWBs are used in classrooms. I had that interest on my teaching practice. It is also instrumental because other researchers and teachers are expected to benefit from this study results and implications.

### **3.3 Universe and Participants**

This study was conducted in the English Language Preparatory School of a foundation (non-profit, private) university in İstanbul, Turkey, 2016. The primary aim of the program is to provide learners with an intensive English course in order to prepare them for their studies at various departments at the university. The program is composed of four English Proficiency levels designed in compliance with the



Common European Framework(CEFR). Students are required to take a placement exam at the beginning of the educational year. According to the gained scores, they are separated into four proficiency levels namely, breakthrough (A1), waystage (A2), threshold (B1) and vantage (B2). Each level is comprised of seven teaching weeks and one exam week and in each level students receive a total of 20 hours of English instruction every week. Students are assessed via quizzes which are composed of 2 portfolio quizzes and 4 short quizzes on reading, use of English and listening during the teaching weeks. At the end of a module, students take an end of module exam including all skills. Their combined average in the quizzes and end of module exam needs to be 60 out of 100 to progress to subsequent levels of instruction. When students complete B1 or B2 levels, they have the right to exit the preparatory school.

Emphasis on IWB technology is strong and the hardware has been installed in every classroom. About three years before the study was conducted, IWB facilities had been installed in all classrooms and programs were launched to train teachers on how to use the system within lessons. However, as the staff has changed over three years, not all the staff were trained on how to use IWB. All the teachers have unrestricted access to IWB technology. In addition, the software of the books used in the program are installed on the IWB. The software program allows the students to see all of the book on the IWB screen. The IWB is an integral part of most lessons, also there is an additional surface to write on alongside the interactive whiteboard.

The participants of the present study include 36 EFL instructors working in an English Preparatory School of a foundation (non-profit, private) university in Istanbul, Turkey. There were 50 EFL instructors working at the foundation university and for the first phase of the data collection, a survey was distributed to all of the instructors. The survey was voluntarily completed by 36 instructors. For the second phase of the study, five of the instructors were chosen purposively according to the result of the survey to be observed in the class. They were chosen for this study since they were using the IWB in their classes more often and their educational background on IWB was different. Three of the instructors were chosen as they had just general training on IWBs, one of the instructors was chosen as he had both general and specific training on IWBs, and lastly one of the instructors was chosen because she had neither general training nor specific training on IWBs.

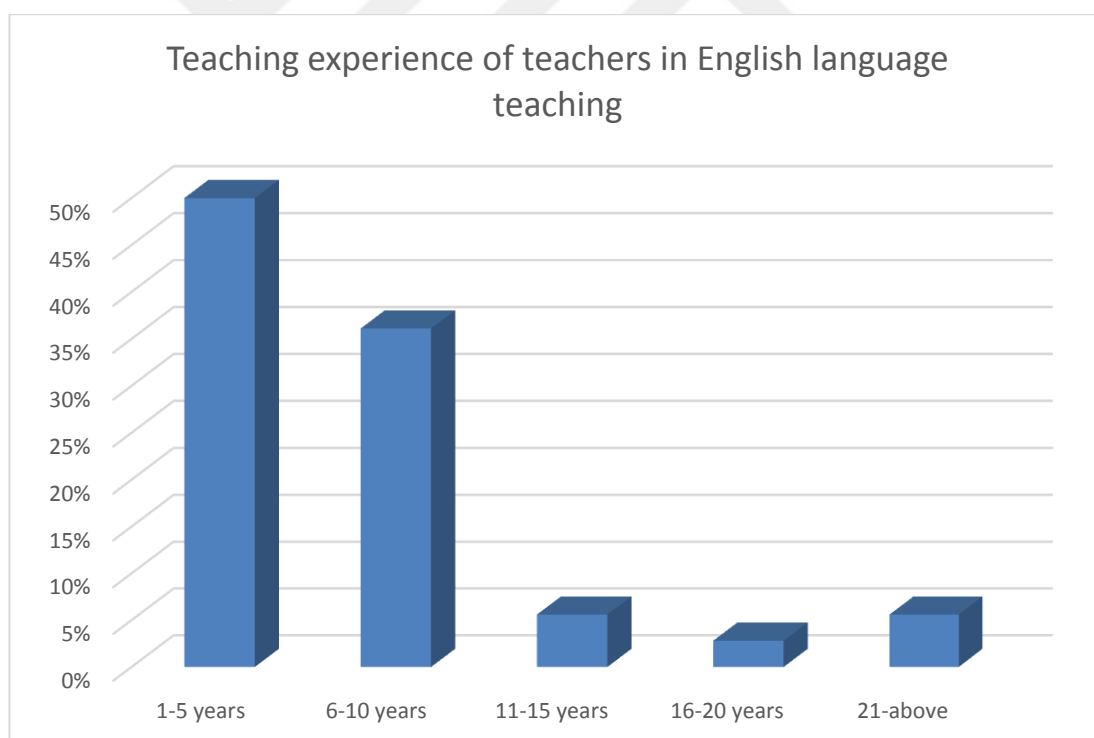
In the first part of the survey for teachers, 36 participants voluntarily answered the questions about their age, educational background and professional

background as well as their teaching experience. Twenty-five out of 36 respondents of the survey were female (69.4 %) and 11 (30.6 %) were male. Age of the participants ranged from 24 to 51. The participants whose age ranged from 26 to 30 constituted the largest group (55.6 %), whereas the ones between 31 and 45 constituted the smallest group (2.8 %).

In terms of teachers' educational background, there are six teachers who hold MA degree in English Language Teaching, American Culture and Literature, and English Language Teaching. Ten of the teachers are graduates of English language and literature, nine teachers are graduates of English Language Teaching, seven teachers graduated from American Culture and Literature, and three of the teachers are graduates of Translation and Interpreting Studies, also one of the teachers is a graduate of English Linguistics.

Figure 1

*Teaching experience of teacher in English language teaching*



As it can be seen from the figure above 18 of the instructors (50%) who participated in the survey had 1-5 years of teaching experience, while 13 of them (36.1%) had 6-10 years, 2 of them had 11 to 15 years, 2 of them had more than 21 years and one of them had 16 to 20 years of experience. In addition, most of the teachers stated that they have taught at all levels, starting from the kindergarten to prep

students, or from A1 to B2, or from beginners to upper-intermediate level. Only a few instructors indicated that they have taught only to prep students.

Before investigating instructors' perceptions and use of IWB in their classes, questions 11 and 12 aimed to understand if the teachers had training on the use of IWB. Table 1 shows that 25 instructors (69.4%) had general training on the use IWB whereas 10 of the instructors (27.8%) had no training on IWBs. Additionally, one of the instructors explained that he/she had a very short training on IWBs.

Table 1

*Q11: Have you had general training in the use of interactive whiteboards?*

Yes	69.4%
No	27.8%
Other	2.8%

Besides, when asked whether they had subject specific training on the use of interactive whiteboards, 27 of the instructors (75%) indicated that they did not have subject specific training on the use of IWBs; on the other hand, eight of the instructors (22.2%) stated that they had subject specific training on IWBs. Moreover, one of the instructors reported that he had specific subject training on IWBs but not thoroughly (see Table 2).

Table 2

*Q12: Have you had subject specific training in the use of interactive whiteboards?*

Yes	22.2%
No	75%
Other	2.8%

Based on the results of the 11<sup>th</sup> and 12<sup>th</sup> questions in the survey, five instructors were chosen for the observations and interviews, two of the instructors were male and three of the instructors were female. The ages of the observed teachers ranged from 26 to 51. They were non-native English instructors. The non-native EFL instructors were all of Turkish nationality where English has the status of a foreign language. The participant teachers had 20-22 hours of teaching per week and they were not responsible for preparing the materials and the exams as they were designed beforehand by the material and testing group of the institution.

For the ethics of the study, its objectives and procedures were clearly explained to the participants and the participation was voluntary. At the start of the interview and audio recording of the lessons, participants were guaranteed that the data gathered from them would not be disclosed in any way which may reveal the individuals. With the aim of keeping the data private, the participants were ensured that they would be anonymized individuals and their answers would be coded in the study.

Teachers were coded and pseudonyms were used to assure the confidentiality and protect identities. The first observed and interviewed teacher who was coded as Eylül has been teaching for 8 years. The second observed and interviewed instructor was named as Polen who has been in the field of teaching for 4 years, the third observed and interviewed teachers named Ozan is the least experienced teacher among the participants, he has been teaching for 3 years and the fourth observed and interviewed instructor named as Melis has been doing this job for 5 years. Finally, the fifth teacher chosen for observation and interview was named as Okan is the most experienced teacher in this study with 29 years. Moreover, when we consider the participants' educational background, they are graduates of English Language Teaching, American Culture and Literature and English Language and Literature. Eylül, Polen and Ozan had a general training on IWB, but they did not have a subject specific training on the IWB. Additionally, while Okan had both general and subject specific training, Melis had neither general nor subject-specific training on IWB.

### **3.4 Procedures**

**3.4.1 Type of sampling.** A sample is a subset of the total population that is of interest for the study topic. This total population is called the target population, to which the result of the study can be generalized (Omair, 2014). Sampling is generally grouped in two categories: probability and non-probability sampling. In probability sampling there is random process rather than human judgements to choose the individuals or other units for a study. On the other hand, non-probability sampling is best used in order to gather information about specific cases or member of the study population which are intrinsically interesting or important for the study (Hanry, 2008).

There are five types of non-probability sampling: convenience (selection of cases based on their availability for the study and ease of data collection), snowball (group members identify additional members to be included in sample), and quota (selection of sample by interviewers that yields the same proportions as in the population on easily identified variables), purposive sampling (selection of cases that are based on specific purposes related to research questions), self-selection sampling (individuals or organizations volunteer to take part in the research).

Sampling for this study was done in two steps. First, according to the convenience sampling the preparatory school in a private university where the researcher works was selected as it was applicable to find the sample group, interview them face to face, follow the procedure closely and solve the problems that might occur during the data collection process. Besides, scheduling the observation with the accessible subjects who work in the same institution as the researcher was much simpler. Next, purposeful sampling was used to select instructors to be observed and interviewed as the results of the first step, which was a survey, in order to determine the subjects to be included in the second step (classroom observations and interview) of the study.

**3.4.2 Sources of data.** Qualitative findings grow out of three kinds of data collection: in-depth, open-ended interviews; direct observation; and written documents (Patton, 2002). For the purpose of this study and to increase the credibility and transferability, data were collected through three different instruments. The instruments of data collection for qualitative data are survey for the teachers, observations of the classes, and post-observation interviews with the teachers.

**3.4.2.1 Teacher survey.** Glover and Miller's (2001) questionnaire on the practicalities and nature of use of IWB was adapted to customize it to this research setting. Some extra parts (demographic part and questions 7 and 8) to the questionnaire were added, some questions were excluded (six questions) and some questions (9, 14, 15, and 17) were turned into open-ended type (see Appendix A). The survey for the teachers were comprised of a total of nineteen questions and consisted of two parts. First part was a short demographic survey (questions 1-6), which examined teachers' names, age, educational and professional background.

The second part consisted of 12 items, there are some questions with closed answers (questions 7, 8,10,11,12), yet, the other option were added to those questions to give the teachers opportunity to express their ideas on the topic asked in the questions, there are also some questions ( 9, 13,14,15,16,17,18,19) with opportunity for open comment. The survey was administered to 36 non-native EFL instructors of the preparatory program in order to collect data about the teachers' perceptions towards the use of IWBs in the classroom.

**3.4.2.2 Classroom observation.** Marshall and Rossman (2011) states that as a fundamental and highly important method in all qualitative inquiry, observation plays a significant role to discover complex interactions in natural social settings even in studies using in-depth interviews. As a result, classroom observations were used in this research to gain deeper insight in teachers' teaching practices.

The results of the survey aided the researcher to select five participants to observe during their teaching hours, which was necessary to find out their actual classroom practices of IWB use. Five instructors, all of whom have full-time access to an interactive whiteboard in their classroom were observed teaching in regular class hours in the classroom and all lessons were also video recorded.

For the observations, an observation record sheet was taken from Bannister's (2010) study which aimed to develop guidelines for the use of IWB (see Appendix B). This has allowed the researcher to record the use of IWB throughout the lesson, for example, objective of the lesson and specific IWB use, or how long IWB is used for which activity during the lesson. The final part of the record sheet consists of four parts that are general uses, using content, tools and applications, and techniques which outline the specific main uses of IWB that can be achieved (see Appendix B). In addition, the observation record sheet helped the researcher to determine the common features of the IWB that instructors use during the lessons.

A total of 250-minutes of classroom observations were made by the researcher observing five instructors' class practice and classes were video recorded at the same time. The aim of the observation was to see the actual ways in which of EFL teachers used or benefited from IWBs in language classes. As teacher-researcher, I was responsible for observing the lessons as well as collecting and analyzing the data.

**3.4.2.3 Post observation interviews.** Semi-structured interviews were carried out to get more detailed information on participants' perceptions of their IWB use. If what a researcher needs to find out cannot be answered simply or briefly and s/he needs to ask people to explain their answers or give examples or describe their experiences, then s/he relies on in-depth interviews (Rubin & Rubin, 2005). As a result, teacher interview was designed based on the survey and observation data as mentioned before. After participants completed the survey and were observed, face-to-face interviews were carried out to be able to analyze their attitudes and practices deeper.

Therefore, five observed instructors were interviewed to investigate how they account for their use of IWBs within their teaching. Individual interviews were arranged with the participants and they were asked about their use of IWB in the class, how and for what they use it, successful activities they have taken, skill or expertise teachers need for effective integration of IWB, how IWB help them to be an effective instructor, whether it is effective on student motivation, how it changes the classroom dynamics, if they create their own resources and which other resources they utilize (see Appendix C). The researcher also asked additional questions about participants' comments where necessary. All the interviews were conducted in English, recorded and transcribed accurately and interviews were lasted for about 20 minutes for each.

### **3.5 Data Collection Procedures**

For the first step of this study which was a survey, the data to answer the first and second research questions were gathered from 36 non-native EFL instructors working at a foundation (non-profit, private) university preparatory school in Istanbul in the fall semester of 2015-2016 academic year. The data for the second step of the study were gathered through observations and interviews in order to answer first and second research questions. The data were gathered through three instruments for triangulation purposes.

First, a survey was employed to 36 EFL instructors through an online form, as they could do it anytime they were available. The questions in the survey were determined and revised based on the supervisor's feedback as mentioned in the previous section. For the observations, after analyzing the responses to the survey,

five EFL instructors who had different educational background on IWB and used it more often in their classes were chosen and their lessons were observed and video recorded to be recalled later. In a few days following the observations, an interview with those instructors was carried out about their survey responses and classroom observations.

The following table provides an overview of the research questions and the corresponding procedures:

Table 3

*Overview of Research Questions and Corresponding Procedures*

Research Question	Data Collection Instruments	Data analysis
<ul style="list-style-type: none"> <li>• What are the EFL instructors' perceptions of the use of IWB?</li> </ul>	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Interview</li> </ul>	<ul style="list-style-type: none"> <li>• Content Analysis</li> </ul>
<ul style="list-style-type: none"> <li>• How and for what reasons is IWB being used in an English as a foreign language preparatory class?</li> </ul>	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Observations</li> <li>• Interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Content Analysis</li> </ul>

### 3.6 Data Analysis Procedures

In this study, the data were gathered and analyzed from qualitative study aspects. In order to answer the research questions, qualitative data were gathered through a survey, observations and interviews with the instructors. The data were analyzed by using content analysis technique (Miles & Huberman, 1994). Raw data will not be useful unless it is analyzed systematically, namely, the researcher can allocate units of meaning to the descriptive or inferential information compiled during a study by coding, categorizing and dividing the data into them (Basit, 2003). As a result, documents in this research were read and reread as an ongoing process until they made a sense and the researcher got familiar with the data. After that, the data were coded and divided into categories until they developed some meaning.

In order to answer the first research question, the data were first gathered through the survey. The survey was administered to 36 non-native instructors.



Google forms helped the researcher to analyze the results of the multiple-choice questions in the survey by giving results in charts. However, there were teachers who chose the other option in the questions with the closed-answers and preferred to explain their opinions. Those data and the data from open-ended questions in the survey were analyzed qualitatively to group the ideas under the same categories through content analysis in order to find out the reasons why instructors used IWB and some functions of it in their observed lessons. The key words in the raw data were underlined and highlighted and they were categorized into the themes.

After the data from the survey was analyzed by the researcher, the classroom observations were conducted with five non-native instructors. An observation checklist was used during the observations to find out how IWB is being used in an EFL preparatory class and why it is being used. The observation checklist was analyzed qualitatively as well. The features of the IWB that are commonly used by the instructors were identified and categorized and during the interviews, questions were asked about the reason of their use of the features and efficiency of those features.

For the second research question, the data were gathered through survey and interviews with the aim of understanding teachers' perceptions of the use of IWB in EFL classrooms. Some of the questions in the interviews were predetermined by the researcher with the guide of the advisor. The data from the questions in the interview with the teachers were taped and transcribed by the researcher. All the data collected in this research were transcribed, categorized and prepared for the analysis. Afterwards the data were qualitatively analyzed by the researcher by defining the common concepts within the sets of text, eliciting the relationship between them and coming up with meaningful results to answer the research questions of the study.

### **3.7 Trustworthiness**

Guba (1981) proposes four criteria that should be taken into consideration to establish a trustworthy qualitative study. Credibility is one of the criteria which is about ensuring that the study measures or tests what is intended in preference to internal validity. To achieve credibility in this study, member check strategy was employed and the participants were informed about the results to check that their

words match what they actually intended to say in order not to cause any misunderstanding.

Another criterion is transferability. In qualitative research, the aim is not to generalize the result rather the reader decides if and how much the results can be transferable to their own setting. Shenton (2004) states that researchers should give sufficient detail of the context of the fieldwork to enable the reader to decide whether the prevailing environment is similar to his or her situation and whether the findings can be transferred to the other settings to ensure transferability. Therefore, thick description of the study, procedures, participant and setting were provided in a detailed way.

In order to establish dependability, which is also a criterion for trustworthiness and about the consistency of the data, the thesis advisor checked the accuracy of the findings, interpretations and conclusions. Finally, to ensure the conformability, which is the degree of neutrality, fairness and being unbiased in analyzing and representing the results (Sandelowski, 1986), the triangulation method was applied with three types of qualitative research methods that are survey, observations and interviews to enrich the perspectives from which the researcher approached the questions and the data obtained from any of them was subject to be confirmed by others.

### **3.8 Limitations**

It must be underlined that there are some limitations in this study.

Firstly, the number of EFL instructors who participated in this study was limited and a limited number of lessons of each instructor were observed which limits the external validity of the results of this study. A larger number of teachers and lessons would be more efficient to be able to generalize to the entire population of universities in Istanbul and beyond.

Secondly, although each classroom observation was analyzed in depth, the number of observed classes were limited to five classes. Future research may observe more classrooms for more sessions so that the teachers might reflect their natural classroom atmosphere as they would get used to being recorded and the researcher in the classroom, which will help the researcher to have more natural lessons.

Thirdly, the teachers were aware that they were being audio-recorded, so they made special efforts to conduct a well-planned lesson in which they would use more communicative IWB activities, namely, the researcher may not have observed the teachers' natural classroom atmosphere.

Lastly, in the 14<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> questions in the survey, a number of examples were provided for the participants to have some idea; however, participants might have misunderstood the given examples and they might have just put the examples in order of importance rather than sharing their own ideas.

### **3.9 Delimitations**

This study is focused only on the members of one private university preparatory department in Istanbul, and the number of EFL instructors who participated in this study is 36, and 50 minutes of lessons of five instructor were observed. While 36 instructors in total submitted the online survey, five instructors volunteered to be observed and interviewed. The number of participants in this study was limited based on voluntariness and because of shortage of time, but the data were analyzed in-depth and rich and thick descriptions of the setting, participants, and methods were provided. Thus, the readers can decide whether this study is applicable to their own case.

### **3.10 Conclusion**

This chapter gave the general information about the participants, the instruments used in the study, and the procedures followed during the study. In the next chapter, data analysis and the findings will be discussed in detail.

## Chapter 4

### Results

#### 4.1 Overview

This study explored the perceptions of EFL instructors towards the use of IWB in EFL classes in preparatory classrooms and their implementation of IWBs into their teaching. Thirty-six instructors were surveyed, and five teachers were observed and interviewed by the researcher in order to answer the research questions. This chapter includes the results in relation to the actual use of IWBs in EFL classes and teachers' perception of the IWB. The research questions are as follows:

1. What are the EFL instructors' perceptions of the use of IWB?
2. How and for what reasons is IWB being used in an English as a foreign language preparatory class?

#### 4.2 Survey and Interview Results for Research Question 1

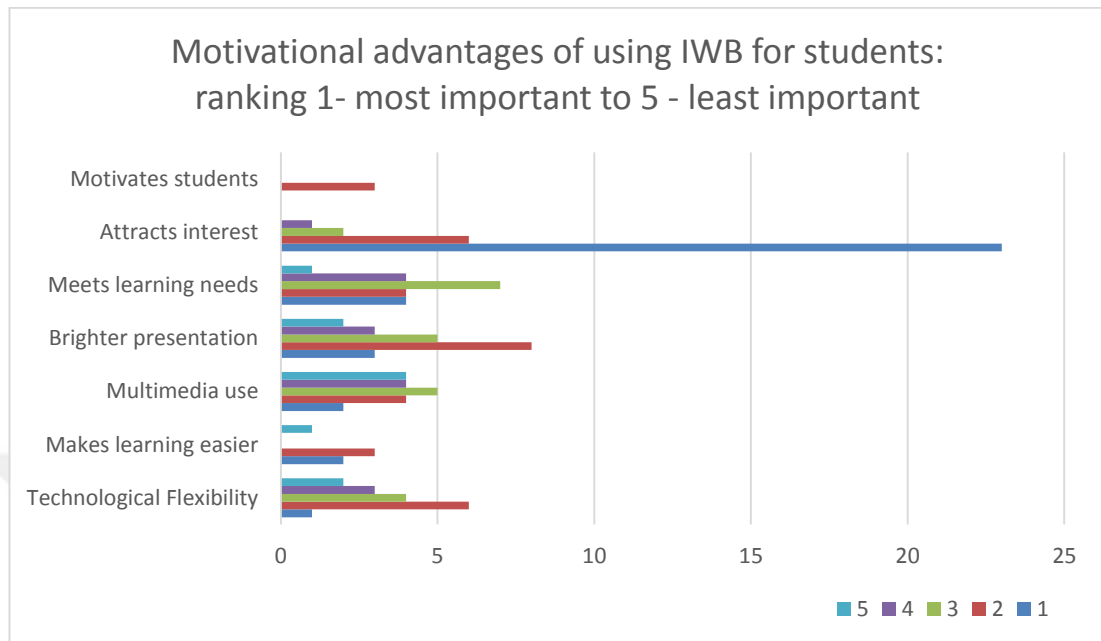
The results obtained from the analysis of survey are presented below. Additionally, to complement the qualitative findings gathered by the survey, the findings of interviews are presented below as well to provide qualitative evidence.

**4.2.1 The findings of the survey.** To answer the first research question "What are the EFL instructors' perceptions of the use of IWB?" Q13, Q14, Q15, Q16, Q18 were asked in the survey to examine teachers' perceptions towards the IWB use in language classrooms.

As depicted in Figure 2, teachers are aware that they can attract students' interest by using IWB facilities, for example, by showing pictures (taken from survey). Twenty-three teachers wrote this as the number one motivational advantage of IWB for students. In the written comments, one of the instructors explained "IWB attracts students' attention and brings joy to the class by changing atmosphere positively" (Survey participant, number 34). Another instructor mentioned that "touch screen is an attraction for the students" (Survey participant, number 36).

Figure 2

*Q14: What are the motivational advantages of using interactive whiteboards for students? Please put them in an order of importance.*



Brighter presentations and technological flexibility were given as the second most important motivational advantages of IWBs for students and some teachers commented on these advantages by that smartphone use for the activities is an advantage for students in terms of technological flexibility. In addition, another teacher pointed out “the Internet integration facilitates learning opportunities” (Survey participant, number 35). Other teachers stated, “well-structured PowerPoint presentations are other advantages of IWB for students” with regard to brighter presentations (Survey participants, number 1, 8, 30). Ease and speed of displaying visual materials is another advantage of IWB for students mentioned by one of the instructors (Survey participant, number 35).

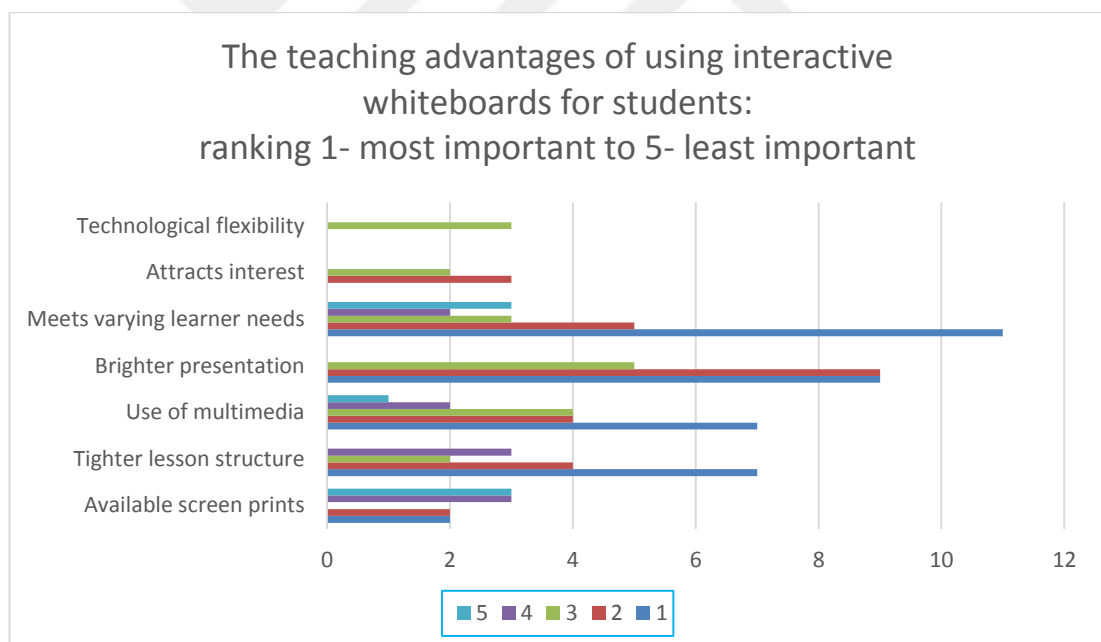
Meeting students’ needs and multimedia use were the third most important advantages of IWB use for students. One of the instructors indicated, “As IWB are suitable for all kinds of learners, they help the teachers to keep students’ motivation in a maximum level” (Survey participant, number 2). Besides, one of the instructors stated, “IWB meets the Z generation needs” (Survey participant, number 17). Additionally, one of the instructors explained, “IWB is advantageous for listening skills improvement” (Survey participant, number 4). Another teacher said, “thanks to

the IWBs we benefit from various multimedia tools” (Survey participant, number 33).

Some of instructors also mentioned how IWB makes learning easier for students. For example, one of the instructors explained, “teachers motivate students by presenting the themes in a different and enjoyable way” (Survey participant, number 34). In addition to this, other instructors said, “Teachers could present more exercises by using time effectively thanks to the IWBs” (Survey participants, number 24, 35, 36). However, interestingly one instructors who stated she does not use IWB often in her lessons and it has not contributed the way she teaches and learns explained, “She does not think that IWB is a motivation factor” (Survey participant, number 31).

Figure 3

*Q15: What are the teaching advantages of using interactive whiteboards for students? Please put them in an order of importance.*



As it can be seen from Figure 3, “IWB meets varying learner needs” was the most popular response regarding teaching advantages of using IWB for students. In the survey, two of the teachers stated, “the IWB helps teachers to fit their lessons to different kinds of learning styles” (Survey participants, number 2, 21). Another teacher mentioned that in terms of multiple intelligences, “IWBs are useful for visual learners, they help learners understand some language items easily and remember

them” (Survey participants, number 32). One of the instructors also mentioned, “Owing to IWB, teachers meet learning needs not only in a conventional way but also in a modern way” (Survey participant, number 15).

The second most popular answer response for the teaching advantages of IWB for students was the brighter presentation. One instructor pointed out “IWB provides ease and speed of displaying visual materials” (Survey participant, number 35). Additionally, another instructor indicated, “IWB helps the teachers to teach in a clear order and have quick outcomes” (Survey participant, number 36). Other advantages given by the instructors included using different programs, easy navigation of the lesson and presenting authentic materials.

Technological flexibility was put in the third order according to the importance of the teaching advantages of IWB. One of the instructors pointed out that “Teachers are able to carry the listening tasks via audio and video” (Survey participant, number 27). Another instructor stated, “The Internet integration facilitates learning opportunities” (Survey participant, number 35).

Tighter lesson structure and available screen prints were in the fourth order as the important teaching advantages of IWB use for students. Most of the teacher mentioned the time saving feature of IWB in terms of tighter lesson structure. Another instructor pointed out that “IWB decreases paperwork” (Survey participant, number 23).

Figure 4

*Q16: What are the problems you encounter before and while using interactive whiteboard? Please put them in an order of importance.*

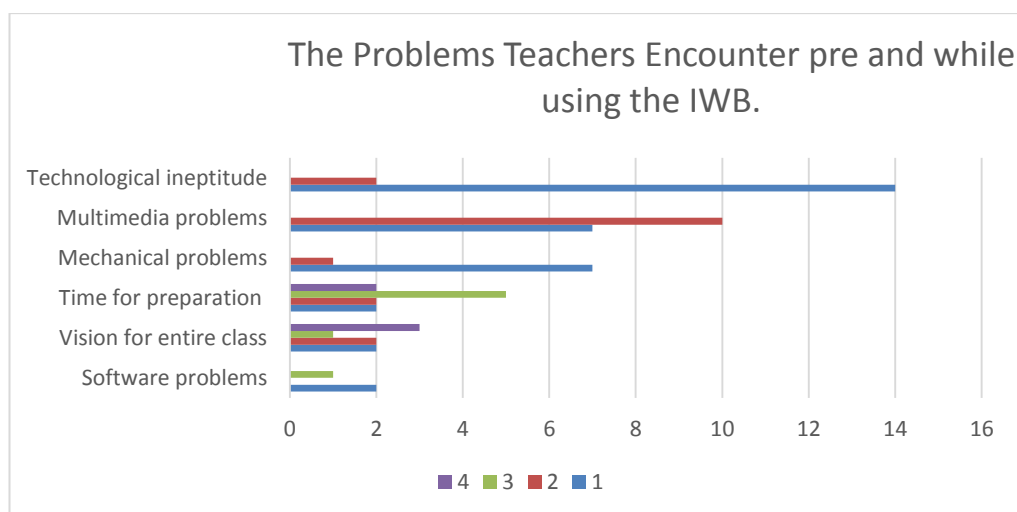


Figure 4 shows the results of the 16<sup>th</sup> question in the survey, which aims to find out the problems teachers encounter before and while using the IWB. Technological ineptitude was mentioned as the most frequently encountered problem by the instructors. One of the instructors gave connection problems as an example for technological ineptitude (Survey participant, number 5).

Multimedia problems the second most encountered problems by the instructors. Besides, the third problem that teachers encounter most is the time for preparation. One of the instructors explained, “Some activities may not be appropriate for the level of students and teachers may have to spend time to adapt the activity for their level” (Survey participant, number 6).

The other problems that teachers face while using IWB can be ordered as vision for the entire class, mechanical problems and software problems. An instructor stated, “Vision for the entire class is a problem because of the physical conditions of the classrooms like lack of curtains” (Survey participant, number 5). Another instructor indicated, “I-tool of the book, uploaded on the IWBs, might not match the hard copy of the book in terms of answers” (Survey participant, number 20). Moreover, one of the instructors stated, “Students’ focus is completely on the board rather than on their books” (Survey participant, number 26). Surprisingly, one of the instructors stated, “I do not encounter any problems before and while using IWB” (Survey participant, number 28). Furthermore, an instructor answered this question with a question: “What if it’s not working?” (Survey participant, number 36)

Q13 was asked in the survey to the teachers with the aim of determining teachers’ educational needs in the use of IWB. Six of the instructors (16.6%) stated that they need further training on how to use it more effectively and six of them (16.6%) indicated that they do not need further training because they think they have enough training. Moreover, six instructors (16.6%) laid emphasis on that they would prefer to have training on applications or activities which are useful, creative, productive, tangible, flexible to students’ needs, student-based, and which draw attention of students or will increase students’ engagement. Three instructors (8.3%) asserted that they need to learn shortcuts which would be quite useful in order not to consume the teaching time. Two instructors (5.5%) explained that they need a detailed subject training, while another two teachers (5.5%) showed that they needed to learn about software and the features of the IWB itself. One of the instructors said that “I need to be trained on different research based methods on how to get the most



out of the use of IWB” (Survey participant, number 35). Likewise, one of the instructors explained, “I need to get some training to use it more creatively and to get the most out of it” (Survey participant, number 17). The other answers that instructors gave for their training needs include activity based training, integrating online activities into classroom use, how to motivate students to use it more properly, how to organize or design presentations and how to make class more dynamic using IWB, and use it in all skills.

In the survey, the 18<sup>th</sup> question was about how IWB has affected teachers’ approach to teaching and learning. By applying content analysis, key words were analyzed and the most common categories and themes related to the IWB use were identified. In terms of teaching, some of the teachers laid emphasis on IWB’s *time efficiency feature* and under this category, the common themes were *more activities and exercises* that can be done during the classes and reduced preparation time. The following are a sample of excerpt from the survey data:

IWB has led to the delivery of most teaching targets in less time, yet with more efficiency. (Survey participant, number 35)

IWB saves time during lessons since some things are ready on the board. (Survey participant, number 32)

IWB allow teachers to move freely around the classroom, more exercises and more presentations can be done in the classroom. (Survey participant, number 23)

The second category most of the teachers dwelt on was how IWB makes integration of technology and materials easier. The common themes under this category were *teaching integrated skills, various and visual materials, students’ interest in technology* and *mobile-assisted language learning*.

It makes integrating multimedia incredibly easier and thus it makes it easy to teach integrated skills. (Survey participant, number 24)

Variety of materials used in the lessons thanks to IWB have made my lessons more effective. (Survey participant, number 29)

IWB surely did help while teaching, especially in the illustration sense. (Survey participant, number 36)

IWB encouraged mobile teaching and freedom in teaching. (Survey participant, number 28)

It helped me to understand the benefit of combining technological devices with traditional teaching methods. (Survey participant, number 18)

Thanks to the use of technology in the classrooms, I believe that students have become more interested in the lessons because they are intensely interested in technology. (Survey participant, number 6)

IWB helped me to be more creative to attract interest. To present a topic with PPT presentation and to show a related video or pictures. Moreover, I can use IWB to connect the smart phones to do further activities. (Survey participant, number 1)

Another category instructors pointed out was communicative language learning under which the themes were active and dynamic.

IWB makes lessons more student centered and communicative. (Survey participant, number 19)

IWB has made the teaching process less teacher and course book oriented and made it more communicative and interactive. (Survey participant, number 17)

In terms of students, instructors mostly mentioned the *motivation* under which there were the themes of *fun*, *interesting*, *focus* and *attention*.

I believe that it is easier for students to focus on the lessons thanks to IWB. (Survey participants, number 12)

On the point of attracting students' attention on the lesson, IWB helped me a lot. (Survey participant, number 33)

It makes easier for the students to follow what we have been doing. (Survey participant, number 14)

One last category identified was teacher attributes under which the themes were teachers' creativity, inventive and energetic teachers and professional development.

The use of IWBs in the lessons have made the teachers' job easier. (Survey participant, number 6)

It has definitely simplified my job and shortened my preparation time. (Survey participant, number 12)

IWB drives me to learn and apply more often. (Survey participant, number 21)

It has shown the possibility of new and better experiences related to teaching and learning. (Survey participant, number 25)

Five of the instructors stated that IWB did not affect or change their way of teaching. Two sample excerpts are:

I am not sure about it because I have always used it since I started teaching. (Survey participant, number 2)

It has not affected so much; I do not see a big difference. (Survey participant, number 16)

Finally, when asked if they would like to add anything, one of the instructors indicated, "The part of interactive whiteboards in teaching should be taken more seriously and some more techniques and training should be applied and given accordingly in today's modern ways of teaching" (Survey participant, number 11). Another instructor stated, "I believe that IWB is a necessary and useful tool in ELT" (Survey participant, number 7).

As it can be concluded, teachers' perception towards the IWB are generally positive; however, one of the instructors warned the teachers to be more cautious with the IWBs and said that:

IWB may cause damage to lenses. Focusing long distance right after focusing short distance, small bright words, letters on screen may cause eye fever (Survey participant, number 30).

**4.2.2 The findings of the interviews.** Moreover, to complement the data from the interview on research question 1, Q2, Q3, Q4, Q5, Q6, Q7 and Q11 were asked to the five instructors during the interviews.

In order to gather further information about the motivational factors on behalf of students, in the interview teachers were asked if they notice improved student motivation during lessons, whether this motivation can be sustained over long terms and what specifically affect student motivation. Eylül, Polen and Ozan stated that they observed an improvement in students' motivation and added that in order to sustain students' motivation, the use of *authentic materials, interactive and communicative methods and tasks* is necessary. On the contrary, Polen said that students are not interested in IWBs anymore and that students' motivation could not be sustained over the long term through IWB. Okan explained that at the beginning IWBs were good motivators but in long terms students lost their interest as they got used to do everything on the IWB and laid emphasize on students' participation:

If the students could use the board and if they were allowed to create materials for it, I think, it would be better. (Okan, April 13, 2016)

Moreover, in the interview, teachers were asked about how classroom dynamics change when they use IWB. Eylül, Ozan, Melis and Okan believe that IWBs are sure to change the dynamics in a positive way when teachers use it for integrating different materials into the lesson to add other mediums in the class other than teacher. Yet, Eylül added that:

When I use IWB just to show the book for most of the time, I do not feel any change. (Eylül, April 11, 2016)

Polen also explained that:

Sometimes, it does not help at all when students are already demotivated. When I use it for games or videos, it can take students' attention. (Polen, April 12, 2016)

Additionally, in the interview, teachers were asked what contents instructors want to access to and what resources are needed, Eylül specified that:

I do not think we have enough time for extra resources in my institution.  
(Eylül, April 11, 2016)

Polen mentioned:

I would like to have access to classroom resources, like dictionaries, educational games, mouse, keyboard and laptop. (Polen, April 12, 2016)

Ozan said that:

I want access to games and multimedia. In terms of resources, there should be more interactive tools or software to encourage students. (Ozan, April 13, 2016)

Melis mentioned multiple intelligences and added that:

It depends on the goals of the classes. To make students' learning effective by focusing on the principles of multiple intelligences. As teachers, we need a number of educational websites, access to various online materials, educational game websites and hardcopy of materials. (Melis, April 14, 2016)

Okan expressed his needs as “offline dictionaries, encyclopedias, a karaoke software and some songs, a faster internet connection, graded readers with audio, air-mouse and keyboard, and satellite TV connection” (Okan, April 13, 2016).

However, in the interview when teachers were asked what skill or expertise teachers need in order to make effective use of IWB, Eylül, Polen, Ozan and Okan stated that teachers need basic computer skills and some specific skills to create materials for example, a little command of MS Word and Excel. Polen also added that you need to know how to use the tools or applications such as educational games.

Different from the other teachers, Okan underlined the role of methods:

Teachers are important guide to stimulate classrooms to use IWB for students' learning. They can search some methods to make it effective and provide a variety of interactive activities during the class. (Okan, April 13, 2016)

As it is clear from what teachers said above, to be able to use IWB effectively, teachers believe that they do not need any advanced computer skills, but they need more interactive activities and want to be trained to integrate IWB effectively into their teaching.

Additionally, to be able to identify the factors that determine the effective use of IWB, teachers were asked to give an example of a successful activity that they had undertaken using an IWB. Eylül shared her use of a video material:

Thanks to the IWB, I had an opportunity to use a visual material just after we studied “passive voice” in the class. It was a video, actually a short movie, in which there was a man being dragged to dig his own grave. I constantly paused the video to make my students tell what was going in the video. (Eylül, April 11, 2016)

Kahoot was mentioned by Polen as “an example of a successful activity, which is an online game I used for vocabulary practice” and continued:

For this online game, students need to use their smartphones. They saw the questions on the IWB and they saw the options on their mobile phones and try to choose the correct answer. It was really fun and they liked it a lot. (Polen, April 12, 2016)

Using authentic materials and integrating mobile learning was Ozan’s response:

Reading, listening and watching about some authentic materials by using IWB and then letting students search further about them on their mobile phones and finally encouraging them to show their findings on the IWB. (Ozan, April 13, 2016)

Similar to Polen, Melis exemplified a successful activity she had undertaken using an IWB as:

As far as I have experienced and observed in my classroom, most students have fun to put their learning into words through games and interactive ways by using the internet. As an example, Kahoot is one of the popular games for students. We can play this game on IWB after they get the instructions related

to the task they have to do. It makes their learning more meaningful since they have a chance to practice what they have learnt. It is a powerful tool for especially visual and auditory learners who can benefit from a clear view and audio materials. (Melis, April 14, 2016)

In common with Eylül, Okan gave an example of a successful IWB activity which included using a movie:

I let them watch a movie. T some points of the video, a multiple-choice question appears on the screen. The film does not continue if the whole class cannot find the correct answer and they can try only twice. They chat with their friends about the correct answers and if they find the correct answer, the film continues. (Okan, April 15, 2016)

Moreover, teachers were asked about the ways they think IWB can help them to be a more effective practitioner. Eylül mentioned the benefits of IWB for teachers:

IWB has improved my pace and thanks to it I put in less effort. (Eylül, April 11, 2016)

Polen spoke of the teaching benefits of IWB:

It can help me to conduct more interesting activities and provides visual aid for me. (Polen, April 12, 2016)

IWB's benefits for students was discussed by Ozan:

IWB saves time and it encourage self-study via some specific tools. (Ozan, April 15, 2016)

Melis emphasized the importance of teacher contribution to the effective use of IWB:

It may help teachers to engage lessons that focus on a task such as matching or filling the gaps activities where students can use it interactively. To provide this chance to students, teachers should have control on tasks in order to encourage them. For instance, integrating multiple items into a lesson plan like photos, music, videos that can stimulate students' interaction. IWBs help

educators become a good practitioner to make their teaching more effective. (Melis, April 14, 2016)

Okan talked about the students' involvement via additional technological devices:

If the students had tablet connected to the board, it would be better. (Okan, April 13, 2016)

### 4.3 Survey, Observation and Interview Results for Research Question 2

In this study, the researcher surveyed 36 EFL instructors, observed and interviewed five different lessons of five instructors in which IWBs are used, with the aim of finding out if the teachers make use of these claimed benefits and to answer the second research question "How and for what reasons is IWB being used in an English as a foreign language preparatory class?". The following part provides with qualitative results of the classroom observations, survey and interviews.

**4.3.1 The findings of survey.** In order to answer the second research question, four questions Q7, Q8, Q9, Q10, and Q17 were asked in the survey which aim to investigate teachers' general use of IWB in classes.

Table 4

*Q7: How many hours do you teach with an interactive whiteboard in English classes in a week?*

17-20 hours a week	94.4%
11-16 hours a week	5.6%

As it can be seen in Table 4 most of the teachers (N=34) teach with an interactive whiteboard between 17 to 20 hours a week and only a small number of instructors (2) teach with IWB between 11 to 16 hours a week.



Table 5

*Q8: For which language skills do you use IWB technology most?*

Integrated Skills	91.7 %
Grammar	5.6%
Reading	2.8%

Table 5 shows for which skills teachers use the IWB most. Thirty-three of the instructors (91.7%) indicated that they use IWB for integrated skills, namely, for grammar, reading, speaking, listening and writing together. However, two instructors (5.6%) stated that “I use IWB only for grammar” (Survey participant number 18) and just one instructor asserted “I use IWB for reading skill” (Survey participants, number 23).

Furthermore, for Q9 which was about the frequency of IWB use in teaching, 30 instructors declared that they use IWB in their teaching often (N= 14), always (N= 7), usually (N= 4) or every day (N= 5). Other instructors expressed that they use IWB 25-30 minutes of a 50-minute lesson or half of the lesson or when necessary and one of the instructors answered this question as he/she often uses IWB for listening tasks.

The 10<sup>th</sup> question in the survey was about whether the instructors get prepared for the lessons with IWB. The Table 6 displays the data gathered from the teachers.

Table 6

*Q10: Do you have to prepare interactive whiteboard activities before the lesson?*

Yes	22.2%
No	55.6%
Other	22.2%

Table 6 displays that 20 of the instructors (55.6%) pointed out that they do not have to prepare IWB before the lesson; on the other hand, eight instructors (22.2%) stated they had to prepare IWB before the lessons. Furthermore, eight of the instructors (22.2%) chose the “other” option and six of the instructors who chose the other option expressed that they sometimes have to prepare IWB activities. One of them pointed out that ““I prepare Power Point slides before the lessons” (Survey participant, number 23) and another instructor stated that “the course book is designed accordingly so I do not have to prepare IWB activities before the lesson” (Survey participant, number 4).

In addition, Q17 was asked to the instructors to determine how often they save and store materials from lessons using IWB. The results indicated that the majority of the instructors do not save materials. Eight instructors indicated that they never save their work on the IWB in the classrooms, similarly 12 of the instructors asserted that they hardly ever or rarely save and store material from lessons using IWB. While four of the instructors remarked that they sometimes save and store materials, five instructors asserted that they usually or often save and store materials. Some teachers preferred to give different answers to this question. For example, one of the instructors said, “I save and store materials whenever I find an interesting material” (Survey participant, number 21). Another instructor expressed that “I do not save lesson materials on the IWB, but I keeps them on her flash drive” (Survey participant, number 20). Besides, one of the instructors explained “I usually stores the material if the students like it” (Survey participants, number 18). Finally, an instructor stated that she mostly saves and stores material from lessons and clarified:

Thanks to the IWB, teachers save a lot of time and material. Rather than writing every single word or presentation on the board, teachers can simply show it using IWBs (Survey participant, number 24).

**4.3.2 The findings of observations.** Five instructors were observed in order to answer second research question with the aim of investigating the actual use of IWBs in EFL classrooms. The data were obtained through 250-minute classroom observations that were video recorded and then transcribed for deeper analysis.

**4.3.2.1 Classroom observation of Eylül.** Eylül is 29 years old. She graduated from American Culture and Literature department. She has been teaching English for 8 years to all levels since she has started working. The lesson I observed was an intermediate level class. There were 18 students in the class. Eylül stated that she used the IWB mostly for teaching integrated skills in almost all lessons and she had general training on the use of IWB. We went to the class together and she introduced me to the students. After that, I sat on an empty chair and I started the recording.

Eylül used the IWB approximately for 35 minutes of the lesson. At the beginning of the lesson, Eylül turned on the IWB and in 35 minutes classroom observation, Eylül used the IWB in the following cases: to show the book on the

IWB, to zoom in the parts that they were doing in order to show the students what they were talking about, to underlying or highlight something on the IWB screen by clicking on a pencil icon marked in red, to open timer when she gave some time to the students for an activity, to show the answers on the IWB for students to check their own answers.

During the lesson, the teacher used IWB for reading and listening skills. Yet, during the lesson, Eylül did not use any of the resources she had prepared and she informed me about it before the lesson. The software of the book was uploaded to the IWBs beforehand, so teachers can show everything from the book on the IWB. As a result, as the observer I noticed that students sometimes did not even look at their books. For example, while they were doing a reading activity, teacher zoomed in the text and some students read the text from the IWB without looking at their books. Besides, Elisa could show everything on the board easily, such as showing the correct answers of an activity by underlying or highlighting them in red just by using her finger. Finally, when there was a speaking activity, she gave students some time to complete it and she opened the timer to show students how much time left for the activity.

There were also some technological problems with the IWB; for instance, the IWB was not so sensitive. At the beginning of the lesson, after the teacher turned on the IWB and software of the book, she tried to open the relevant page, but the IWB did not sense it although she tries it a few times. That moment she commented on her situation and said, “This is the moment when I feel anxious”. Moreover, the teacher did not take any notes on the IWB, except highlighting the tasks or unknown words in the text, but she used the whiteboard next to the IWB to take more detailed notes. Furthermore, the teacher had some difficulty with the software of the book too. When she showed the correct answers on the IWB for students to check their own answers on their books, students realized that some of the answers on the software were wrong.

**4.3.2.2 Classroom Observation of Polen.** Polen is a 26-old instructor with 4 years of experience in English language teaching. She is a graduate of English Language Teaching department and she has been teaching to all levels. She had general training on the IWB and she uses IWB to teach integrated skills in every lesson. We went to class together which was intermediate level. There were 13

students in the class and after greeting the students, I found an empty chair and started the recording.

During the 50-minute lesson, Polen used the IWB for about 40 minutes of the lesson. She opened the IWB at the beginning of the lesson and she used it during the whole lesson for speaking and listening together. She mostly used the IWB for presenting the topic with a Power Point (PPT) presentation, zooming in to show students where to on the book to focus, pointing the questions that they were discussing, underlying the unknown vocabulary before the listening text, stopping the audio during a listening activity to ask specific questions for those part, showing the answers on the IWB for students to check their own answers on their own books, taking small notes, underlying questions that students are expected to discuss about and opening the timer during an activity.

Before the lesson, she prepared a PPT presentation and at the beginning of the lesson Polen showed a PPT presentation to the students. During the PPT activity, the teacher asked some questions, which were written in the book as well. Instead of saying open your books and look at the questions, she prepared those questions as a different activity, and as she did it at the beginning of the lesson and before the students opened their books, students did not realize that and they were interested in answering the questions.

Polen used the IWB for showing the relevant parts, and for visual and audial support. Polen took the attention of the students by underlying questions before a speaking activity and taking small notes on the questions for unknown words. She also showed the timer to shot the students time-left for the activity. Furthermore, Polen did the listening tasks easily and smoothly as everything on the book was uploaded on the IWBs. In other words, there was no separate head speaker that Polen had to deal with or waste time to arrange it. Polen carried out all the listening tasks on the IWB without losing any time. Therefore, I noticed that students did not lose motivation and attention during the changeovers. Additionally, like the first observation I had done, I observed that as the book was open on the IWB some students didn't look at their books. However, surprisingly some students asked "which page" even if the book was open on the IWB. During the lesson, Polen did not use the Internet connection or play a game.

**4.3.2.3 Classroom observation of Ozan.** Ozan is 26 years old and he is a graduate of American Studies department. He has been teaching English language for 3 years and has taught all levels only at university preparatory classes. Ozan had just had general training on IWBs. He uses IWB for teaching integrated skills in all of his lessons. We went class together. There were 20 students in the lesson I observed and they were intermediate level student. I introduced myself and after that I found an empty chair, and I started recording.

Ozan used the IWB approximately for 50 minutes of the lesson. After greeting the students, Ozan opened the IWB and used it until the last minutes of the lesson. Ozan used the IWB for the following functions: to show which part from the book they were doing, to show pictures from the book for students to describe it, to use the magnifier to show the related parts on the page from the software of the book on the IWB, to write students' answers on the IWB by using the red pen function, to compare the correct answers on the board with the students' answers that he had already written on the IWB, to delete the notes that he had written on the IWB by using eraser, to underline or circle the target structure by using red pen function, to take notes on the IWB, to show the correct answers of an exercise, to play audio records, to show how to do a task before asking students to do it.

During the lesson, I observed there was no multimedia use as authentic material because of some technical problems. They did the listening activity on the book which was about checking the answers of a quiz about countries. After checking the answers of the students to the quiz, he played the audio record for students to check their answers. Before the lesson, Ozan told me that he had searched for some related videos to the topic of the lesson and brought them to the classroom on a memory stick, and while students were working on a task, he tried to make the video ready. However, there was a problem with the jack of the IWB; as a result, even if he tried it a few times Ozan could not show the videos during the lesson. Moreover, Ozan had difficulty with the software of the book as well. When he showed the answers of an activity on the IWB, he and the students realized that some of the answers were wrong, thus he had to check the answers again. Ozan also introduced a grammar topic during the lesson and while he was doing it, he underlined the target structure to attract students' attention.

I observed that Ozan did not use all the features of IWB, such as, when he could not show the video he had downloaded on his flash disk because of technical

problems, he did not connect to the Internet which was available in all of the classrooms or he just used the red pen to underline something on the board instead of using other colors or highlighting function.

**4.3.2.4 Classroom observation of Melis.** Melis is 27 years old with 5 years of experience in English language teaching. She graduated from English Language Teaching department. She has taught mostly to university students since her graduation. She had no training on the IWB use. She often uses IWB for teaching integrated skills. There were 21 students in the class and they were all intermediate level. We went to the class together and she introduced me to the students and explained why I was there. After I sat on an empty chair, I started recording.

Melis used the IWB for about 45 minutes of 50-minute lesson. Melis used the IWB for speaking and listening skills together. Melis used the IWB mostly for: underlying unknown vocabulary in a text and target structure by using the red pen function, to show the target structure that they are going to use during a speaking activity, play the audio records, to write and check students' answers. Melis did not prepare any IWB activities before the lesson.

During the lesson, I observed that she did not use IWB for interaction in the class for example; she did not use the IWB for attracting students' attention to some important parts or underlying the important phrases. Unlike other instructors, Melis did not use the IWB for everything they do on the book. She holds the book in her hands all the time and followed most of the lesson on her book, e.g., for showing pictures although the IWB and the page they were doing was open. There were some pictures on the book that they were going to talk about, but instead of showing them on the IWB, Melis preferred to show pictures on her book by holding it in her arms and pointing the pictures with her finger. Furthermore, differently from other teachers she preferred to give instructions verbally for the listening activity; she did not use the IWB for showing what or which part they were doing, she gave the instruction verbally and played the audio for the listening activity. After she played the 5 different audio recordings after another, she asked students' answers and noted them on the board, and they check the answers all together with the class. She used the red pen function just for showing the target structure and the unknown vocabulary in the target structure that students were supposed to learn for speaking

activity. As the observer, I noticed that some students got lost when they did not see the part they were doing on the IWB and they lost concentration.

**4.3.2.5 Classroom observation of Okan.** Okan is the most experienced teacher of the observed teacher with 29 years. He is 51 years old and he is a graduate of English Language Literature department. He has taught all levels from beginners to upper-intermediate. He had both general training and specific training on the use of IWBs. He uses IWB for integrated skills most of the time. The students in the observed lessons were intermediate level. We went to the class together and there were 18 students in the class. After greeting the students I found a place to sit and started the video-recording.

Okan used the IWB for 48 minutes of the lesson and I observed was a grammar lesson. Okan used the IWB mostly for: zooming in the part of the book they were doing on the software, to write students' answers on the IWB by using the red pen function, showing the correct answers on the software and comparing them with the students' answers, underlining or circling the target structure or important words with red pen, pointing the activities they were doing.

In the lesson I observed, Okan used the IWB to cover the book and he did exercises and he did not make use of the Internet, videos or audios, for example, to show the pronunciation of the target structure. At the beginning of the lesson, Okan opened the IWB and the software, then he zoomed in the part they were doing and he told students what to do. However, some students were talking and they could not hear what he said. Instead of asking the teacher which part they were doing, the students looked at the IWB and started to do the related part. Moreover, Okan wrote all of the students' answers on the board by underlining them with the red pen. After they answered all of the questions, Okan showed the correct answers on the board for students to check their answers. As the observer, I observed that this made the students curious about the answers to see what they did wrong and as everything was clear on the board students had the chance to see if they had made mistakes.

The grammar presentation was ready on the software of the book, thus the teacher did not have to prepare a grammar presentation before the lesson. Okan just circled or underlined the key words and the target structure. When he underlined the key words, some students underlined them on their books too and some students just followed the lesson on the IWB. Besides, when students asked a question, did not

understand something, answered a question wrong or when Okan wanted to revise the structure, Okan just rolled the screen by his finger to show the structure again and answered students' questions by referring what he had told about it. As a result, he did not waste time to write it on the board again.

Finally, while they were answering an exercise one of the students asked Okan to zoom in because she could not see it, but Okan did something wrong on the software, and he had to restart it. While Okan was trying to solve the problem with the software, students tried to help the teacher about how to do it.

**4.3.2.6 Summary of classroom observations.** The observation data were gathered in order to see the actual use of IWB in English as a foreign language class. The IWB technology was used quite intensively in all stages of the lesson as a presentation device and as a platform for integrating different types of technology, such as, video, sound, and multimedia. In addition, as the observer I tried to sit in different places in the classrooms to see if there was any factor that affected the visibility of the IWB, for example sunlight and I observed that IWB could be seen clearly from everywhere in the class.

IWBs had been installed in all of the classes and there was a traditional whiteboard in all of the classroom for alternative use. Yet, teachers rarely write anything on the board as everything is prepared in advance and presented in class. Highlighting was a function that all of the teachers used intensively in their lessons

However, although the Internet was available in the classes, none of teachers used this feature of the IWBs during the observations. Furthermore, students were not invited or encouraged to the use the IWB in any of the classes. Moreover, the IWBs, which are used in the school I conducted this study, did not have the save and print feature. As a result, IWB was mostly used for software demonstration by all of the teachers. Lastly, I witnessed some technical problems during the observations such as freezing and broken jack.

**4.3.3 The findings of interviews.** In order to answer the second research question, five questions Q1, Q7, Q8, Q9, and Q10 were asked in the interview which aim to have a deeper understanding of EFL instructors use of IWB in their teaching.



Instructors firstly asked how they see their own teaching through IWBs. Eylül mentioned about the teaching advantages of IWB to draw student attention and using videos as language input. She specifically added that:

I use IWB so as to draw attention in the class as well as to facilitate the process of efficient teaching. I use IWB for my students to be exposed to the language, which is English, and which is generally through videos in that very specific language. (Eylül, April 11, 2016)

Polen addressed the visual and auditory benefits of IWBs and stated that:

I use IWB mainly for visual support and for class audio. Also, I use it to show and search for information, visuals or videos by connecting to the internet. For the active teach of the course book, I usually show the relevant parts so that students can follow the activities easily. For the other purposes, I upload the pictures or videos before and show them in the class. (Polen, April 12, 2016)

Ozan made a mention of functions of IWBs, time and multimedia:

I use the IWB to attract students' attention and to save time by using some IWB tools such as zooming, highlighting and using multimedia. (Ozan, April 13, 2016)

Melis described her use of IWB as:

IWB can serve as a practice and reinforcement tool that allows students to get involved in their own learning effectively. It may be a good way to begin to encourage students their interactive and collaborative learning environment. Generally, I try to use IWB to attract my students' attention to some important parts related to the theme in the class. Underlying the important phrases, taking notes or exploring some interesting videos, integrating the theme are some of the favorite ways I prefer. (Melis, April 14, 2016).

Lastly, Okan explained his use of IWB as:

I use it to cover the course book, to do the exercises on the book, to do listening, to show videos and to use the Internet. (Okan, April 15, 2016)

Additionally, in the interview, when I asked Okan why he did not use the Internet or other multimedia functions in the observed lesson, he clarified that:

This lesson was a grammar lesson and the book was enough to cover the lesson. I did not find it necessary to use any multimedia for this lesson. Furthermore, the other day there was an exam in which this grammar topic was included that's why we did not have enough time. Otherwise, I have a USB flash drive, which is full of videos and when there is a related topic, I show them in the class (Okan, April 15, 2016).

Nonetheless, when asked during the interview whether students are invited to the IWB or if they are encouraged to use it, Eylül explained that students are invited though it is rare.

Time limitation and crowded classroom were given as the reason by Polen for not encouraging students to use the IWB. Moreover, Okan mentioned students' being lazy or shy to use the IWB.

Ozan said that he mostly invited the students to the IWB. Moreover, Melis drew attention to the benefits of IWB for kinesthetic learners:

Yes, I believe that it promotes them to absorb information by touching and moving things on the IWB. It may be really good in interactive activities and group-discussions, because they have a role to manage and control every piece of process in the task. (Ozan, April 13, 2016)

Further, the teachers were asked whether they created her own resources, how long it took them to prepare an IWB activity and what happened to the resources they created.

Eylül and Polen stated that they usually prepare PPT presentations, also Eylül, Polen and Ozan explained that preparing the materials does not take too much time and they stored the materials they had created for future use or shared them with their colleagues:

I rarely prepare my own resources, and I generally prepare PPTs and I store them. The preparation depends on the work, for example, I have stored billions of videos so if I am going to use them in the class, it does not take so long. (Eylül, April 11, 2016)

I usually prepare PPT presentations or games. Generally, it takes one to two hours. I sometimes share them with my colleagues and keep them for future lessons. (Polen, April 12, 2016)

I prepare my own resources and it takes one or two hours. If the activity is successful, I share it with my colleagues, but mostly I save them for later use. (Okan, April 15, 2016)

Unlike other teachers, when asked about whether they create their own materials, Ozan and Melis explained they do not prepare their own materials and Ozan added that:

I use already existing materials mostly, but from time to time, I use authentic material. (Ozan, April 13, 2016)

Besides, in the interview, instructors were asked if there are any other educational resources that they regularly use in conjunction with IWB and how they use it. While Eylül, Polen and Ozan stated that they do not use any other educational resources apart from the course book's software, Melis clarified that:

Only few due to our busy schedule. I try to visit Oxford and Cambridge websites to have more exercises for students whenever they have difficulty to practice well and what they have learned, for role-playing and speaking activities. Busyteacher.com may be helpful to attract students' attention to the theme. (Melis, April 14, 2016)

Okan said that:

I have other course book software. I use them for feedback sometimes as tests. (Okan, April 15, 2016)

Moreover, in the interview, when instructors were asked to what extent they were able to make use of software that was available with the IWB. Eylül pointed out that she was able to use IWB to extent to which she was trained for. Polen explained that:

I can use it easily whenever I need it. The only problem is about slow Internet connection. (Polen, April 12, 2016)

Likewise, in the interview, Ozan answered the question about to what extent they are able to make use of software that is available with the IWB as he uses it in all possible ways. Yet, when I asked why he did not use the Internet during the interview he clarified that he did not prefer to use it because the Internet in the school is slow and he did not want to waste time on it.

Additionally, in her answer Melis talked about creating a bank of resources:

We can create a bank of learning sources that can be used many times with multiple classes. (Melis, April 14, 2016)

Lastly, Okan expressed that although he can:

I can use it to the full extend but mostly the book is enough. (Okan, April 15, 2016)

#### **4.4 Summary of the Results**

The research findings are discussed in relation to two research questions written above. When the findings of the survey and interviews are examined for the first research question, it can be concluded that most of the instructors indicated that they had positive perceptions towards using IWB in EFL classes. They need training on the use of IWB especially about how to use it more effectively to teach English, yet they think that they do not need special computer skill to be able to use IWBs. Moreover, instructors confirmed that effective use of IWB in language teaching requires authenticity and active participation by students. Lastly, instructors agreed that IWB helped them improve professionally.

The survey, observation and interviews for the second research question showed that instructors use the IWB to attract students' attention and to integrate multimedia into the lesson, but most of them do not prepare IWB activities before the lesson as everything is on the board as opposed to what they had said in the survey and interviews. Furthermore, even though they said that participation of the students is important for the effective use of IWB, during the observations, none of them encouraged students to use the IWB for their own learning.

## **4.5 Conclusion**

This chapter presented the data analysis of the teachers' use of IWB and their perceptions of IWBs in EFL context. Qualitative data were gathered through teacher survey, observations of IWB based English lessons and post-observation interviews. In the next chapter, the findings will be discussed in detail and in parallel with the findings in the literature.



## Chapter 5

### Discussion and Conclusions

This study aimed to investigate the instructors' perceptions on IWB and how and for what reasons IWB is being used in EFL classrooms. Qualitative data were collected through data triangulation. The participants of the study were selected from the instructors of a private university in Istanbul in which IWB technology is intensively used. In order to find out the teachers' attitudes towards the use of IWB a survey was applied. Thirty-six instructors responded the survey in this study. Fifty-minute lessons of five instructors were observed to gain insights into the ways of IWB use in English as a foreign language classes. Interviews were also conducted with teachers to have a deeper understanding about their use of IWB and attitudes towards the use of IWBs. The research questions addressed in this analysis were as follows:

1. What are the EFL instructors' perceptions of the use of IWB?
2. How and for what reasons is IWB being used in an English as a foreign language preparatory class?

In this chapter, the results of the research will be discussed referring to each research question in relation to the existing literature on IWB use. Additionally, pedagogical implications will be provided. Lastly, recommendations for future research will be underlined.

#### 5.1 Discussion of Findings for Research Questions

**5.1.1 Discussion of the findings of research question 1: What are the EFL instructors' perceptions of the use of IWB?** The items in the second part of teacher survey and interview were designed to investigate the attitudes of EFL instructors towards the use of IWBs in English lessons. The survey showed that overall; the teachers had positive attitudes toward the use of IWBs in their English lessons and they think that IWBs are useful teaching tools in language teaching. Teachers mostly agree that a big and touch-operated screen like IWB is a motivational advantage for students and it appeals to all learners with different learning styles through various multimedia tools, and more activities can be done in the classroom with more

efficiency owing to IWBs which increase motivation, interaction and participation of the students. This finding is in accordance with the findings of Hall and Higgins' (2005) study which stated that multimedia capabilities of technology seems to appeal students, which is also in line with Bell's (2002) arguments which state that different learning styles can be supported by teachers with the help of IWBs. Besides, the data from the survey showed that instructors think that IWB makes lessons less teacher and book centered and more communicative which was in parallel with Kennewell and Beauchamp's (2007) study suggesting IWB maintains the attention on the subject instead of teachers.

Instructors also believe that students became more interested in lessons as students are interested in technology and IWB helps teachers to integrate technology into lessons, thus their lesson becomes more interesting and fun for students. Additionally, teachers considered that IWB helped them change professionally in a positive way and it made their job easier. This is in accordance with Wall, Higgins and Smith's (2005) study in which they concluded according to students; teachers became more creative and active thanks to the IWB. Yet, a small number of teachers did not think that the IWB had changed their classroom practice.

Observations showed that the teachers were able to use the basic functions of IWBs easily, such as highlighting, zooming, writing with their finger, and playing audio and visual findings. The observations were supported with the interview data, as teachers indicated that teachers need only some basic technological skills in order to make effective use of IWB. In order to find out whether training has an impact on effective use of IWB, teachers who have different training experiences were observed. The data showed that there was no difference among teachers. Nonetheless, the teacher who had no training on IWBs showed some difference from the other teachers in terms of limited use of the IWB, like instead of showing the pictures on the book on the IWB, Melis preferred to show it on the book, as result students were less motivated in this lesson. Yet, it is not possible to say training certainly has an influence on effective use of IWB, as one-hour observation was not enough to make such a generalization.

Likewise, the findings based on the observations and interviews revealed that teachers' being close to the IWB (rather than being have to go to the computer desk) is a factor which affects the effectiveness of IWBs. As I observed during the lessons, teachers can get students' attention easily and maintain the smoothness of the lesson

and students' attention when they control the computer software from the board and do not lose time between the activities. Cogill (2002) supports this view by reporting if a teacher is close to the resources being used, namely when the board, the large, attractive, easy to read display is in the teachers' hands, s/he can use his/her personality and dynamism.

The interview results showed that being able to integrate visual and auditory aids, the Internet, and mobile phones into teaching is a factor that determine the effective use of IWB. From the perspectives of the teachers, students show interest when they use it to play games on the Internet with the help of their mobile phones or when they show a video or picture related to the topic. However, instructors also stated that as students are getting used to do everything on the IWB, they would lose their interest in time. Furthermore, the interview data showed that students would be less interested in the lesson if instructors just used the IWB for reflecting the book on the board. This finding is in accordance with Sad and Ozhan's (2012) findings which stated that motivation through IWB can decrease in time or academic learning gains may not be as desired which should not be attributed to the IWB itself but to the failure of blending technology and pedagogy. According to the interview results, in order to prevent this situation, instructors need to make use of authentic materials in the classroom and encourage students to take an active part in their own learning. Also, the data form the interview revealed teachers feel more effective because IWB encourage students to be interactive learners.

According to the survey results, when teachers were asked about the problems they experience with regard to IWBs, teachers explained that they lack experience concerning IWBs. Besides, the time spent for the preparation of the materials was specified as a problem by some of the instructors while some of them indicted that IWB simplified their jobs and reduced their preparation time. Moreover, the survey results indicated that teachers need more training to be able to use IWB more effectively especially on useful activities and the features of the software to get the most out of IWBs. This is in parallel with Celik's (2012) findings in which he concluded that in order to make the quality of technology integration in classrooms certain, teachers need to be trained to become familiar with IWB and to understand the best ways to use it. In addition, the interview results showed that instructors would like to have access to more interactive contents, which will provide active participation of students in learning.



**5.1.2 Discussion of the findings of research question 2: How and for what reasons is IWB being used in EFL classrooms?** The second research question attempted to investigate the actual use of IWB in EFL classes and to analyze for what purposes it is being used. In order to answer the second research question, teacher survey, observations and interview were utilized. Survey results demonstrated that instructors use IWB extensively in their lesson to teach integrated skills, but they do not have to prepare IWB activities before the lesson since the software of the course book is uploaded on the IWBs and they were designed accordingly. These findings match well with the observations, it was seen that teachers mostly used the software of the book to teach the grammar, listening, reading and speaking and they did not prepare IWB activities often. However, the interview data show that instructors have a store of materials but most of the time they do not have enough time to use those materials and additional educational resources in the class.

The results additionally demonstrated that instructors, in general, use the IWB to attract students' attention. Instructors noted the integration of multimedia, videos, and pictures as authentic materials to attract students' attention and support them for efficient learning. However, the observations revealed that they rarely used IWB for authentic materials in their classrooms. Teachers' reflection on their whiteboard use from their interviews didn't reflect their classroom practice which was in parallel with earlier research of Moseley et al (1999) in which researchers observed teachers' description of the way they teach is different from their actual practice. Moreover, all of the teachers mentioned the importance of students' involvement in their own learning with the help of IWB in the interview, however in the observed lessons, teachers were in the center of delivery of information through IWB. Students were not given the chance to actively use the IWB for their own learning in the classroom. Some of the teachers explained the reason of not encouraging the students to engage in their own learning as busy schedule and crowded classrooms, which indicates that IWBs are not used to their full potential, which is in parallel with Sad and Ozhan's study (2012).

Additionally, the data revealed that IWB helps the teachers to save time during the class and it provides them more time for teaching. All of the teachers in the observations benefited from the materials prepared in advance by underlying or pointing target structure or unknown vocabulary with the red pen, showing the answers by just clicking on an icon or presenting the grammar topics from the

software instead of writing them on the board. Moreover, thanks to the IWB teachers do not have to deal with time-consuming things during the lesson, like installation of head speakers. This data was supported by many instructors in the survey and in the interviews as well. This finding was in line with Cogill's (2002) study, in which the researcher observed the pace of lesson was surely more active and direct than waiting for teachers to write on a blackboard and most importantly, teachers were free to give more thought to actually teaching. It is also observed that changing pages or activities without erasing the previously written materials saves time and teachers can easily turn back to previous underlined or highlighted parts as all the pages are saved. This is in parallel with Gillen et al.'s (2007) and Tataroğlu and Erduran's (2010) studies indicating that IWB helps teachers to return pages they covered during the lesson in order to address students' needs. Yet, the survey and observation data indicated that instructors did not utilize the saving and storing function of the IWB. They do not save the materials they used on the IWB in the class, at the end of the lesson they delete everything they had done on the software during the lesson and as the IWBs used in this institution do not have the printing function, they cannot take advantage of it as well. Instructors prefer to save and store materials that they created for further use.

**5.1.3 Pedagogical implications.** This study has noticeable implications for EFL instructors in terms of IWB use in their classes. As discussed before, a number of researchers have underlined the importance of evaluation of how IWB are being used in language classes. The results of the study provided insights for teachers is that teachers should integrate students into their own learning for the effective use of IWB in EFL classes. According to the findings gathered from the survey, observations and interviews, the students should be provided with adequate authentic materials through IWB to make learning more efficient, one of the implications about the use of IWB effectively is teachers may encourage students to engage actively with multimedia resources (Schmid, 2008)

The IWB functions that teachers used to attract students' attention in the classroom in this study reflect well the functions demonstrated by Gerard, Greene and Widener (1999), Jelyani, Janfaza and Soori (2014), and Schmid (2008): the presentation of new linguistic and cultural elements, highlighting with pens in different colors to analyze grammatical and vocabulary features, grammar practice,

and brainstorming. However, editing and proofreading drafts of written genres, discussing and interaction with the whole class were not among the functions that were observed during the lessons.

Moreover, Al-Faki and Khamis (2014) argue that students' participation is facilitated by their interaction with the materials on the IWB, thus, as Grey et al. (2005) state teachers must be careful not to take the role of "show and tell" while conducting lessons with IWB. This study is in line with these arguments and highlights the importance of students' participation in their own learning by use of IWBs considering the data gathered from teachers' interview. Additionally, training on effective use of IWB may be great help for teachers.

## **5.2 Conclusion**

Regarding the use of IWB in language classrooms, the results of the study indicated that teachers believe integration of IWB in language learning has positive effects on English learning and teaching. The survey and interviews showed that teachers had positive attitudes towards using of IWBs in their English lessons and agreed that IWB should be integrated in language classrooms to get students' attention. Moreover, they stated that they use IWB in their classes frequently and take benefit from it most of the time. Most of the teachers stated that they use IWB to teach integrated skills. Teachers used the IWB for showing the book, zooming in, drawing and underlying with red pen, showing the answers, PPT presentations, playing audio records.

Teachers used IWB to ensure students' motivation and smoothness in the lesson. Yet, observations revealed that instructors did not use IWB to include students in their own learning and provide active participation which is considered as an effective factor in the use of IWBs by the instructors. The data from this study also showed that teachers' being close to the materials that are used in the class is an advantage to keep students motivated during the lesson

When teachers' perceptions towards IWB were analyzed, the findings revealed that IWB was regarded as a facilitative tool to improve learning and teaching in English classrooms. Most of the instructors think that IWB can arouse students' interest and meet varying learner needs thanks to tighter lesson structure, brighter presentations, and audio-visual and authentic materials.

### **5.3 Recommendations**

This study has several recommendations for future research. First, the present study constituted only 36 volunteer instructors for survey and 5 volunteer instructors for observations and interviews. Thus, having a larger sample from more than one university could give more representative results for the use of IWB in English as a foreign language classes.

Second, a longitudinal study could be conducted in order to collect more reliable data about the use of IWB in language teaching by organizing more interviews and longer hours of observations. In addition, students can be involved in the study to see their perspectives of the IWB use.

Finally, the effect of training on the effective use of IWB should also be investigated in a further research.

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## APPENDICES

### A. The Survey

Dear Colleagues,

This questionnaire is designed to collect data for my MA thesis at the Department of English Language Teaching at Bahçeşehir University. The aim is to investigate the use of interactive whiteboard in the preparatory classes in a private university and to see how effectively it is used.

This questionnaire for teachers is the first phase of my study. Class observations will be the second phase of my study to see the actual use of IWBs in English lessons. Moreover, interviews with the teachers will be carried out to understand their thoughts about the IWB use.

It is assured that all the personal data provided from this questionnaire, observation, and interviews will be kept private and confidential. All the information provided will be used for research purposes only.

Thank you very much for contributing to this study by filling in this questionnaire.

If you have any questions, please do not hesitate to email me at

deryaayazz@gmail.com

DERYA MURAT

BEYKENT UNIVERSITY, EFL INSTRUCTOR

BAHÇEŞEHİR UNIVERSITY, MA STUDENT

## **PART 1: Background Information**

1) Your Name

2) Your Age

20-25

26-30

31-35

41-45

46-Above

3) Gender

Male

Female

4) Your Bachelor's degree

5) Years of teaching experience

1-5 years

6-10 years

11-15 years

16-20 years

21-above

6) At which grades have you taught?

**PART 2:**

7) How many hours do you teach with an interactive whiteboard in English classes in a week?

- 1-5 hours a week
- 6-10 hours a week
- 11-16 hours a week
- 17-20 hours a week

8) For which language skills do you use IWB technology most?

- Writing
- Speaking
- Reading
- Grammar
- Integrated skills

9) How frequently do you use interactive whiteboard in teaching?

10) Do you have to prepare interactive whiteboard activities before the lesson?

- Yes
- No
- Other.....

11) Have you had general training in the use of interactive whiteboards?

- Yes
- No
- Other.....

12) Have you had subject specific training in the use of interactive whiteboards?

- Yes
- No
- Other.....

13) What do you consider to be your training need in the use of interactive whiteboards?

14) What are the motivational advantages of using interactive whiteboards for students? Please put them in an order of importance.

i.e. attract interest, brighter presentation, multimedia use, technological flexibility, meets learning needs

15) What are the teaching advantages of using interactive whiteboards for students? Please put them in an order of importance.

i.e. brighter presentation, tighter lesson structure, use of multimedia, available screen prints, meeting varying learning needs

16) What are the problems you encounter pre and while using interactive whiteboard? Please put them in an order of importance.

i.e. room booking, vision for entire class, time for preparation, technological ineptitude, multimedia problems

17) How often do you save and store material from lessons using interactive whiteboards?

18) How has the interactive whiteboard affected your approach to teaching and learning?

19) Is there anything you would like to add?

## B. Observation Record Sheet

<b>General Uses</b>					
Play DVD		Play Video Clip		Play Sound	View/Interact with website
Use Third Party Software		Video Conferencing		Presentation/ Powerpoint	Examining Still Images
Share Electronic Files		Share Pupil Work		Using IWB Software	Brainstorming Note-taking
Annotation		IWB Software Over Desktop		Other	Other
<b>Using Content</b>					
Built in Content Template Pages		Built in Flash Content		Commercial IWB Content	Content from Manufacturer
Downloaded Lesson Content		National/Local Government Content		Other	Other
<b>Tools and Applications</b>					
Pens		Highlighters		Blinds/Spotlights	Handwriting Recognition
Camera Tool		Timers		Maths Tools e.g. protractor	Screen Recorder Sound Recorder
Split Screen		Magnifier		Other	Other
<b>Techniques</b>					
Grouping		Layering		Rub and Reveal	Fill Revealing
Object Actions		Infinite Copying		Matching e.g. Snap back	Matching e.g. Connectors
Links Embedding Media		Text Manipulation		Drag and Drop	Media Storyboarding
Transparency		Animation		Other	Other
Other Notes for Discussion with Practitioner					

## C. Interview Questions Sample

### **Semi-Structured Interview with University Preparatory Instructors about the Use of Interactive Whiteboards in ELF Classes**

1. In general, terms, for what purposes do you use IWB? How do you use it for that?
2. Can you give an example of a successful activity that you have undertaken using an IWB?
3. What skills/ expertise do teachers need in order to make effective use of IWB?
4. In what ways do you think IWBs can help you in becoming a more effective practitioner?
5. Do you notice improved student motivation during lessons? If yes, do you think this can be sustained over the long terms? What specifically affect student motivation?
6. How do classroom ‘dynamics’ change when you are using interactive whiteboard?
7. Are the students invited to the IWB or are they encouraged to use it? Why/ why not?
8. Do you create your own resources for the IWB? Why/ why not? How long does it take to prepare an IWB activity? What happens to the resources you create?
9. Are there any other educational resources that you regularly use in conjunction with IWB? How are these used?
10. To what extent are you able to make use of software that is available with the IWB?
11. What content do instructors want to access to and what other resources are needed?

Thanks ☺

Derya Murat



## CURRICULUM VITAE

### Personal Information

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### Education

- MA, Bahçeşehir University, English Language Teaching, 2016
- BA, Marmara University, English Language Teaching, 2011
- BA, Erasmus University of Pardubice, English Language Teaching, 2010 Fall

### Work Experience

- English Language Instructor – Beykent University (2012-.....)
- English Teacher-Istanbul-30 Agustos Primary School (2011-2012)

### Certificates

- Doğuş & Beykent University, Celebrating Differences-Meeting The Challenges Of Diversity In The Elt Classroom, November, 2015
- International Burch University, 4th International Conference on Foreign Language Teaching and Applied Linguistics – Speaker, May, 2014
- COMU, THE 8 TH International ELT Research Conference “Innovative Approaches to Research in ELT”-Speaker, May, 2014
- Sabancı University, IATEFL Learner Autonomy Special Interest Group (LASIG), May, 2014
- LEAD – Turkey and Pearson, Reflective Practice & Instructional Coaching and Creativity & Ed.Tech in the ELT Classroom, February, 2014
- Oxford University Department for Continuing Education, Oxford University Press, Oxford Teachers’ Academy Course: Making Digital Sense, June, 2013
- Ihlas College, International Storytelling Conference, May, 2013
- Beykent University, Beykent University 7th International ELT Conference:” CEFR, From a Teaching to a Learning Curriculum”, March, 2013