



Mohamed Khider University of Biskra
Faculty of Letters and Languages
Department of Foreign Languages

MASTER THESIS

Letters and Foreign Languages
English Language
Sciences of the language

Submitted and Defended by:

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On: Sunday, 27th June 2021

**An Investigation into the Effect of the Interactive Whiteboard
on Classroom Interaction in English Foreign Language Classes
The case of First Year Students at “Omar Idriss” Secondary
School in El-Kantara**

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DECLARATION

I, **KHELIFA Youssra**, do hereby declare that the work that I presented in this dissertation is my own, and has not been submitted before for any other institution or university for a degree. I also declare that a list of references is provided forward indicating all the sources of the cited and quoted information. This work was certified and completed at Mohammed KHEIDER University of Biskra, Algeria.

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DEDICATION

To my family and friends

ACKNOWLEDGEMENTS

All praise be to Allah, the Almighty, on whom we depend for guidance, patience, and strength.

I would like to express a sincere gratitude to my supervisor **Dr. ASSASSI Tarek** for his support, guidance, and efforts.

A special gratitude goes to the board of examiners for their acceptance to assess my work, their constructive feedback and remarks: **Dr. HOADJLI Ahmed Chaouki** and **Ms. MERGHMI Kenza**.

I would like to express my gratitude to **Dr. CHELLI Saliha** for his guidance, feedback and help.

My thanks extend to Mr. **ABBABSA Nassim** who devoted his class and time to help me refine my work.

My infinite thankfulness goes to all first year secondary school students who devoted their time to answer the questionnaire.

My endless gratitude goes to all teachers of the Division of English at the University of Biskra for their collaboration to this work.

Special thanks are due to my sister and friend who rendered their help during the period of my project work. I really appreciate their feedback and support.

ABSTRACT

The primary aim of learning a language is to use it in communication in its spoken or written forms. Classroom interaction is a key to reach that goal. However, it is observed that many English as a foreign language (EFL) teachers show many deficiencies in improving their classroom interaction. Besides, lack of materials and teaching tools are deemed as barriers that impede teachers from creating an appropriate learning environment; in a way that may affect their students' motivation and interaction during lectures. Therefore, this study hypothesized that the interactive whiteboard can be an effective tool that contributes to enhancing EFL classroom interaction. However, since this kind of technology is not widely adopted, especially in foreign language classes, we sought to explore teacher and students' perceptions towards implementing this tool for future practical pedagogies. This study also aims to investigate the role of the IWB as an instructional tool to develop EFL classroom interaction. To test the validity of our hypotheses, a descriptive study is conducted with a qualitative approach to collect, analyze, and interpret data. The latter were gathered through two different tools; a questionnaire administrated to fifteen (n=15) first year EFL students at Omar Idriss Secondary School of El-Kantara and a classroom observation conducted with the same level from the same secondary school. The analysis and interpretation of data revealed that the students and teacher had positive perceptions of the importance of the IWB to develop the quality of EFL classroom interaction. We concluded that the suggested hypotheses are confirmed because the results were in favour of the research assumptions. Therefore, teachers, students, and the staff at El-Kantara secondary school are recommended to integrate the IWB technology in future pedagogical tasks.

Keywords: Interactive Whiteboard, EFL, instructional tool, classroom interaction

LIST OF ABBREVIATIONS AND ACRONYMS

BECTA: British Educational Communications and Technology Agency

CD: Compact Disc

EAP: English for Academic Purposes

EFL: English Foreign Language

ELT: English Language Teaching

IR Pen: Infrared Pen

IWB: Interactive Whiteboard

PC: Personal Computer

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1. Introduction

The use of technology has become an important part of teaching and learning a great number of subjects, including languages (Ishtaiwa & Shana, 2011). With the introduction of computer facilities into the education system, traditional techniques are increasingly being enhanced or even replaced by techniques relying more on technology. Thus, the rapid developments in technology have led to several opportunities to be used in language classrooms by changing the traditional nature of the classroom.

One of the recent technologies offering teachers and learners opportunities to teach and learn in new ways is the Interactive Whiteboard (IWB). With the incorporation of IWBs in teaching and learning English as a foreign language, different changes have been observed. For example, engaging more students in the lesson, using multimedia sources flexibly, and motivating learners easily. However, using the IWBs is a complicated task that demands considerable knowledge and training from teachers to master the basics to use them effectively.

Accordingly, adopting the IWB in EFL classes appears to be efficient for developing different aspects; especially, classroom interaction. Recent studies have shown that a strong relationship exists between the incorporation of the IWBs and the quality of interaction that takes place when they are being used. Ultimately, there will be an investigation into the impact of the IWBs to determine how they are successful and fulfilling at improving EFL classroom interaction.

2. Statement of the Problem

Enhancing classroom interaction is crucial in learning languages; especially, in learning English as a foreign language, but this is not an easy task. It is observed that using the traditional blackboard made students bored, uninterested, and unmotivated to acquire the expected knowledge in the target language. They may also become less engaged towards the classroom lessons that probably affect the classroom interaction and the learning process.

Therefore, to enhance classroom interaction, EFL teachers need to integrate the appropriate tools that may allow them to raise their classroom interaction. For this reason, the researcher proposed that if teachers use the interactive whiteboard as a pedagogical tool to teach foreign language lessons, students' engagement would be boosted. Moreover, the

integration of the IWB may promote interaction among teachers, students, and learning materials. It is considered to have the potential to improving teaching and learning experiences by offering useful ways for students to interact with electronic content (BECTA, 2004). In short, using the IWB as an instructional tool in foreign language classes can be presented in such a manner as to raise interactivity in EFL classes, and thereby the learning process will be improved.

3. Research Questions

This research seeks to answer the following research questions:

RQ1: To what extent does the use of Interactive Whiteboards (IWBs) contribute to the development of classroom interaction (teacher-student(s)/ student-student(s)/ students-content/ student-board) in EFL classes?

RQ2: How do EFL teachers and students perceive the use of the IWB as an instructional tool?

4. Research Hypotheses

Based on the above research questions, we propose the following research hypotheses:

RH1: We hypothesize that the IWBs have a great contribution to the development of the EFL classroom interaction.

RH2: We suppose that EFL teachers and students at Secondary School of El-Kantara have positive attitude(s) towards the use of IWB as an instructional tool.

5. Aims of the Study

- General aim :

The general aim of this study is to investigate the effectiveness of integrating the IWB as a pedagogical tool in foreign language classrooms and its usefulness in promoting classroom interaction.

- More specifically, this work aims to:

- a.** Urge the Algerian educational institutions to provide classes with the IWBs.
- b.** Investigate how can EFL students interact more through the use of IWB.

- c. Study the attitudes of both learners and teachers toward the use of IWB inside the classroom.
- d. Explore the obstacles that teachers face when using the IWB in teaching a foreign language.

6. Research Methodology

Research Approach

Regarding the nature of the study, the qualitative approach will be used to investigate the role of the IWB as a pedagogical tool to enhance first year EFL classroom interaction at Omar Idriss Secondary School in El Kantara, Biskra. The researcher will employ the qualitative research methodology to collect and analyze data. This type of research seeks to find out opinions and views about the effectiveness of using the IWB in the teaching-learning process. Moreover, this study aims to validate the suggested hypothesis seeking correlation between two variables; namely, the implementation of the IWB as the independent variable, and the classroom interaction as the dependent variable. This kind of investigation may represent a precious clue for a further and more rigorous investigation.

Research Design(s) / strategy(ies)

There are various research designs for each research approach. Due to the choice of the qualitative method, a case study design will be used to provide real action situations that enable the researcher to explore valid data about many issues that concern the IWB and classroom interaction. Therefore, this type of design tends to give a detailed description of EFL teachers and learners' perceptions of integrating the IWB to promote classroom interaction.

Data Collection Methods / Tools.

Research methods are forms of data collection, analysis, and interpretation (Creswell, 2009). Accordingly, to collect and analyze data, the researcher used qualitative methods. In the current study, the researcher will rely on classroom observation and questionnaire on the context of Secondary school to investigate the effect of using the IWB on classroom interaction.

Questionnaire

For this study, a semi-structured questionnaire will be distributed to first year secondary school learners with the aim of gathering data concerning teacher and learners' attitudes towards the implementation of the IWBs in EFL classes. This data collection tool is chosen considering its efficiency in collecting a considerable amount of data, economizing time, effort, and financial resources (Dörnyei, 2003). Besides, this kind of questionnaires provides detailed and justified answers compared to structured ones.

Classroom Observation

According to Mackey and Gass (2005), observation can frequently take place within a classroom context. The latter often allows the study of behaviour at close range with many significant contextual variables. Classroom observation is an important and useful mean for gathering in-depth information about any researched phenomena. To gain insights about the implementation of the IWB on classroom interaction; how students and teachers interact during lessons presented, a classroom observation will be conducted with a secondary school first-year class. The researcher opts for classroom observation as a data-gathering tool that aimed to involve the real learning context to get more realistic and reliable data concerned with the impact of the IWB on EFL classroom interaction.

Data Collection Procedures

To achieve the study objective(s), the researcher follows the following procedures: As an initial step, the researcher uses the classroom observation to explore the effect of IWBs on the extent and the nature of the interaction as well as to explore the teachers and students' attitudes towards the role of the IWB in EFL teaching and learning. The classroom observation is conducted with EFL teacher and students at the secondary school of El-Kantara. As a secondary step, she posts the questionnaire online for first-year EFL students of secondary school to get accurate data concerning their attitudes towards the use of IWBs. Then, the researcher collects EFL students' responses.

Data Analysis and Procedures

After counting the yielded results, the researcher analyzes the data through counts, and percentages by using statistics and descriptive analysis with the questionnaire and the

classroom observation checklist to see the impact of the IWB on classroom interaction and to explore teacher and students' attitudes towards the role of IWB on EFL teaching learning. Besides, data are summarized through different ways analogous to frequencies and percentages.

7. Population and Sample

This study will be conducted at Omar Idriss Secondary School of El Kantara. It deals with the impact of the IWB on classroom interaction. First-year EFL students will represent the population as a case study. The number of the whole population is expected to vary from 140 to 150, aged from 16 to 18. Additionally, this number includes male and female students with the same degree of experience as they have been learning English for five years or more. The choice of this population is based on a piloting study by using observation. It is noticed that first-year classes are less motivated and interested in lessons. Therefore, they need new and practical tools to enhance their interest and to increase their motivation that may help them to improve their learning level.

Furthermore, first year students at Omar Idriss Secondary School (n=15) and their EFL teacher will constitute the sample of this study. This work aimed at collecting perceptions of the target population about the implementation of the IWB in EFL classes; therefore, EFL students were the participants to provide valuable original data that increase the quality of work. Besides, implementing the IWB instigated the researcher to explore to what extent it can be efficient in the local context in order to develop classroom interaction.

8. Sampling Techniques

Depending on non-probability sampling, this research is based on the convenience sampling technique since its main idea is that members are readily approachable to be a part of the sample. This sampling technique helps the researcher to observe habits, opinions, and viewpoints in the easiest possible manner.

9. Significance of the Study

This study may have a significant contribution to our domain of teaching and learning English as a foreign language. It intends to reveal the extent and quality of classroom interaction with the effect of technology, specifically, when IWBs are being

used. Therefore, the findings of this study may help teachers who work with first-year students to understand the potential of the IWB for improving the amount and type of classroom interaction; and may contribute to their language instruction practices and ultimately to the students' language learning. It may also provide information for administrators trying to decide whether to invest in IWB technology for their classrooms.

10. Literature Review

In Algeria, IWB technology is relatively new, and few institutions use it currently for language-teaching purposes. They are contented with the use of simple whiteboards as a pedagogical tool to project lessons. Since the research studies may be helpful to decide whether to incorporate this new technology or not, this study will be a starting point to show the overall picture of IWB use.

Teaching-learning process has been associated a long time with the same traditional way of teaching and learning. The latter made both students and teachers less interested and motivated toward lessons. As a result, learners became bored and less involved in the learning process. Hence, researchers opt for the IWBs as an effective tool in teaching and learning English as a foreign language for many reasons such as retaining learners' attention, clarifying complex ideas, simplifying teaching process and enhancing classroom interaction (Jang & Tsai, 2012). Numerous studies have been undertaken by researchers in order to find out the implementations of the IWBs in education.

An interactive whiteboard is a technological tool that is used in conjunction with a computer, which makes a dramatic impact as a presentation device. However, unlike other computer technologies, interactive whiteboards are intended for whole-class instruction rather than individual use. They are large, touch-sensitive screens that are connected to a computer and projector. The computer screen is projected into the whiteboard, thus allowing the teacher to conduct class at the board rather than being attached to the computer. The user can control the screen by touching it with a special pen or with a hand, rather than a mouse.

Different researchers from different areas of interests are giving a great deal of work to finding practical tools for improving EFL classroom interaction. The positive effect of IWBs on classroom interaction may be one of their major benefits based on general claims about the opportunities of technology integration into education (BECTA, 2003). In a study

conducted by Schmidt (2009) in an English for Academic Purposes (EAP) class, she concluded that the use of an IWB increases interaction between students and improves students' engagement with the class. Besides, she explained that via the IWB, she could provide students with authentic materials that enabled them to be engaged in classroom. Similarly, proponents of the technology claimed that IWB use leads to more interactivity in the classroom. For instance, the British Educational Communications and Technology Agency (BECTA, 2003, p.3) noted that the boards provide more opportunities for interaction since students seem very motivated to use them.

Importantly, using the IWB during lessons have been perceived to motivate and engage EFL students and teachers towards the learning-teaching process. Soares (2010) conducted a project in a K-12 classroom with EFL students and participant teachers to assess participants' opinions on newly introduced IWB technology. The data in the study were collected through questionnaires given to the students, interviews with the teachers, and self-reflections by the researcher on IWB use in the classroom. The results showed participants' agreement on the idea that the IWB motivates them. The participant teachers also agreed on the idea that collaboration and dialogue between students was enhanced and ultimately interaction was increased. It has also been argued by BECTA (2003) that the use of IWBs increases motivation because "students enjoy interacting physically with the board, manipulating text and images; thereby providing more opportunities for interaction and discussion" (p.3). More importantly, they emphasized the role of the IWBs in promoting the classroom interaction and motivation.

Parallel to the increase of motivation, Beeland (2002) stated that engagement increases as well. In his study, Beeland (2002) aimed to find out students and teachers' perceptions about IWB use. His survey-based research concluded that when the technology is integrated into a classroom, teaching and learning are enhanced because the physical interactivity with the board boosts students and teachers' motivation to manipulate the visuals and texts on the board. In other words, engagement can be promoted in classes with IWBs. Likewise, Levy (2002) drew the same conclusion about the contribution of the IWB to students' engagement in the classroom. In her study, the participant students indicated that the IWB had a motivational effect on them. Similarly, the teachers were interviewed

after the study; they particularly noted that the IWB helped students to participate more in the classroom.

From the above literature, it is evident that IWB is deemed as a powerful pedagogical tool that contributes to increase the classroom interaction in English as a foreign language classes. Even though every researcher used different research approaches and designs to collect the data, the results were the same. However, the literature still lacks studies investigating the possible impact of the IWB on classroom interaction in language learning classes, particularly in the Algerian institutions. This study is aimed to explore the impact of integrating the IWBs on classroom interaction at Omar Idriss Secondary School classes.

11. Provisional Structure of the Dissertation

This study is divided into two main parts. The first part is devoted to the literature, while the second part is devoted to the fieldwork and data analysis. Moreover, the researcher divides the research work into three main chapters in which each chapter targets specific points. The first chapter presents an overview of classroom interaction. However, the second chapter is devoted to shedding light on the IWBs. Finally, the last chapter represents the fieldwork of the study in which the researcher elucidates the procedures she proceeded for data collection, data analysis, discussion of the findings, and recommendations. For more details, the categorization is as follows:

- **Chapter One**

This chapter deals with classroom interaction. It tackles the definition of interaction in general and classroom interaction in particular. It also focuses on language acquisition since it is related to classroom interaction as it deals with its importance in teaching and learning English. Besides, it sheds light on revealing classroom interaction types, aspects, techniques and strategies that help teachers to manage classroom interaction. The connection between the IWB and classroom interaction is also discussed in this chapter.

- **Chapter Two**

This chapter examines the incorporation of the IWB in education, specifically, in EFF classes. It provides some definitions of the IWB and its main technical functionalities.

It also summarizes the different types of IWB and its related devices. Moreover, it deals with the advantages and the drawbacks of the proposed technology as it attempts to reveal how this tool can promote interaction in EFL classes.

- **Chapter Three**

This chapter starts with literature review about the research methodology adopted for this study namely, research approach and research design. Then, it deals with data collection, analysis, and interpretation. It is based on the use of two data collection methods (a questionnaire and classroom observation).

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Introduction

This introductory chapter attempts to provide a deep clarification about classroom interaction. Firstly, it deals with the definition of interaction in general and classroom interaction in particular. It discusses briefly language acquisition since it is related to classroom interaction. It also highlights the importance of classroom interaction in teaching and learning English as a foreign language as it focuses on revealing the main types and aspects of classroom interaction. Furthermore, it sheds light on the techniques of classroom interaction as well as the interactional strategies that help teachers to manage classroom interaction. Finally, because of the IWB importance in classroom interaction, the connection between them is briefly discussed.

1.1 Definition of Interaction/ Classroom Interaction

Many definitions have been put forward in research on interactions. Each one is discussed from a distinct point of view. For instance, the Cambridge dictionary defined the term interaction as “an occasion when two or more people or things communicate with or react to each other”, and the Oxford dictionary defined the word interaction as “reciprocal action or influence”. Moreover, Wagner (1994) defined the concept of interaction as “reciprocal events that require at least two objects and two actions. Interaction occurs when these objects and events naturally influence one another” (p.8). That is to say, interactions do not occur only from one side, there must be mutual influence through giving and receiving messages in order to achieve communication.

Similarly, the term interaction, according to Ellis (1999), is a “social behavior that occurs when one person communicates with another” (p. 1). Ellis tried to define interaction from the social perspective; he considered interaction as a social behaviour during a conversation between two persons. He argued that interaction is a behaviour more than it is an action.

To go deeper, many scholars and researchers tend to give different definitions to the concept of classroom interaction from different angles. Dagarin (2004) argued that classroom interaction is a “two ways process between the participants in the language

process”. In other words, it is a process in which the teacher influences the learners and vice versa.

In the same path, Malamah –Thomas (1987) considered classroom interaction as a reciprocal action in which the process of sending and receiving is mastered in the classroom. She proposed a figure for classroom interaction. This figure explains the teacher-student relationship during an interaction.

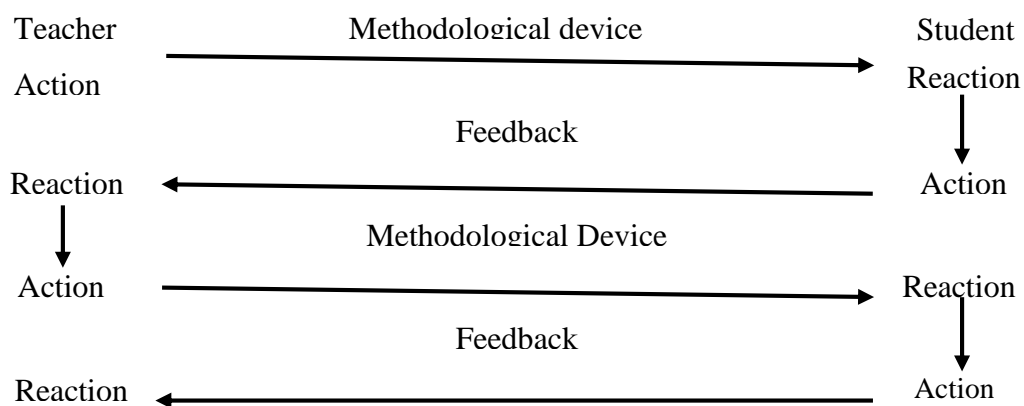


Figure 1.1 Classroom Interaction (Malamah-Thomas, 1987, p. 39)

He claimed that classroom interaction is a methodological instrument followed by a response in which the students are able to get their teachers' feedback. To sum up, with the researchers' points of view, most of the definitions agree that classroom interaction is an interaction between lecturer and students that happens when they participate in the classroom. It can be developed depending on the attitudes and intentions of the participants as well as their interpretations of each other's attitudes.

1.2 Classroom Interaction and Language Acquisition

Interaction is a key to second language acquisition and exists as a fundamental characteristic. It describes the interpersonal activity-taking place during face-to-face communication (Vygotsky, 1978, cited in Ellis, 1999). The influence of interaction on second language acquisition can occur among non-native speakers of the second language or between non-native speakers and native speakers. According to Ellis (1985), interaction

is regarded as the discourse created by learners and their interlocutors, and output is the result of the interaction. It facilitates language learning, engages students to participate in language learning activities, and makes more outputs of the language. In a second language-learning context, language learning is mainly conducted and initiated by language teachers in distinct ways such as teacher questioning, teacher instructions, or any other kind of activities that facilitate learners' language acquisition.

Krashen (1981) stated that acquisition is an implicit and explicit process. The former involves learners' attending consciously to language to understand and memorize rules. By contrast, the latter takes place when the language is used for communication. Acquisition occurs when learners focus on transmitting meaning. Moreover, language acquisition is mainly referred to the process by which both linguistic competence and communicative competence are acquired by learners. According to Ellis (1999), it can be conducted through direct exposure of the target language to learners and based on formal language instruction.

To ensure the reciprocal relationship between interaction and language acquisition, Mackey (1999) asserts that the nature of interaction and the role of learners are critical factors through interaction. He concluded that one feature interacting with the learner's internal factors to facilitate development is the participation in the interaction through the provided condition for the negotiation of meaning. Long (1990) indicates that language acquisition is the result of an interaction between the learners' mental abilities and the linguistic environment.

1.2.1 The Interaction Hypothesis

The interaction hypothesis highlights the role of negotiated interaction in language development. Doughty & Long (2003) have cited that negotiation for meaning triggers interactional adjustment and promotes language acquisition because it connects input, internal learner capacities and output. According to Long (1983a; 1983b), language acquisition occurs when learners are provided with opportunities to negotiate meaning to prevent a communicative breakdown. Through negotiation, learners obtain feedback from interlocutors on their language output in the forms of conversational adjustments. The

feedback serves as an indication for learners to modify their production. Gass & Varonis (1994) discussed the importance of negotiated interaction in promoting second language acquisition:

... Crucially focuses the learner's attention on the parts of the discourse that are problematic, either from a productive or receptive point of view. Attention in turn is what allows learners to notice a gap between what they produce/ know and what is produced by speakers of the second language. The perception of a gap or mismatch may lead to grammar restructuring (p.299).

Simply, speakers can modify the input or structure the interaction by using interactional strategies to avoid conversational trouble or repair misunderstandings. Such behaviours represent ways in which participants in a conversation collaborate in order to communicate effectively (Dörnyei and Scott, 1997) and probably provide comprehensible input (Krashen, 1985).

The Interaction Hypothesis, according to Long (1996), is based on the following propositions. Firstly, Comprehensible input is a necessary but not sufficient condition for acquisition, and it is one of several processes required for acquisition to occur. Moreover, learners need to attend, notice and consciously perceive mismatches between input and their output to make the input become intake. Additionally, negative feedback gained during negotiation work may be facilitative of second language development and necessary for particular structures. Skehan and Foster (2001) also stated that collaborative interaction provides the negotiation of meaning, a significant feature of interaction.

1.3 The Importance of Classroom Interaction

The process of learning a foreign language depends mainly on the concept of classroom interaction, where teachers and students create an enjoyable learning environment. Interaction has a crucial role to play in language classes because it helps students to enhance their language development as well as their communicative competence. Meaningful interaction leads students to communicate in the classroom and offers more opportunities to learn and practice the target language. Furthermore, it enhances their amount of participation during the lecture by getting comprehensible input from their teachers for the sake of producing comprehensible output.

In the same context, Rivers (1987) noted that:

Through interaction, students can increase their language store as they listen to or read authentic linguistic material, or even the output of their fellow students in discussions, skit, joint problem-solving tasks, or dialogue journals. In interaction, students can use all they possess of the language – all they have learned or casually absorbed in real-life exchanges. (p.4-5)

He explained the significance of interaction for language learning as it helps students increase their language knowledge; through participating in different classroom activities. These activities can be discussions, group work and problem-solving tasks. Additionally, Kaya (2007) stated that students listen to their teachers and other students in the classroom ask questions, interpret the events, and give feedback to each other. Therefore, students whose aim is to use and produce the language can learn the language effectively through interaction in the classroom.

The findings of the study conducted by Dobinson (2001) indicate that classroom interaction can facilitate vocabulary learning, while Takashima and Ellis' work (1999) revealed the impact of interaction on learning grammar. The latter studies showed that when students interact with the teacher through questions/answers and focused feedback, there is an increase in students' awareness of items that they have been taught.

Similarly, Chaudron (1988) stated that interaction is viewed as significant because it is argued that only through interaction; the learner can decompose the teaching-learning structures and derive meaning from classroom events. Moreover, Allwright and Bailey (1991) stated that through classroom interaction, the plan produces outcomes (input, practice opportunities, and receptivity). It can be concluded that classroom interaction plays a significant role in the teaching-learning process.

1.4 Types of Classroom Interaction

According to Thurmond (2003), interaction in the classroom is the students' engagement with the content of the lecture, with other students, with teachers, or with technology. From this definition, Thurmond believes that there are four types of interaction: teacher-student interaction, student-student interaction, student-course content interaction, and student technology interaction

identifying the materials and methods used in presenting the lecture is another aspect that should be taken into consideration.

Teacher-students' interaction is of significant importance in foreign language teaching and learning. It is proved that interactions between the teacher and students facilitate language development and lead to better language learning. In Hamre and Pinta's (2001), it is argued that teacher-students' interactions have been consistently linked to varying outcomes for students. For instance, high achievement, positive behaviour, engagement in school and classroom, and low levels of negative work habits have been associated with student-teacher relationships and interactions. Hence, students must rely on teachers in order to be provided with the support and guidance to establish the foundation for teacher-student interactions in the classroom.

1.4.2 Student-Student Interaction

This type of interaction occurs among learners studying the same course. Johnson (1995) supported that if learner-learner interaction is well structured and controlled; then, it can be an essential factor of cognitive development and educational achievement of students as well as emerging social competencies. Hence, learners will establish a social relationship through this kind of interaction, where the sense of learning community is improved, and isolation is decreased in the classroom. Moreover, Naegle (2002) stated that "talking students with their peers about the content of the course is a powerful way for them to reinforce what they have learned" (p. 128). Therefore, teachers should foster this kind of interaction among their students since it facilitates the learning activities and minimizes passiveness between them. Numerous theories of learning maintain that knowledge is actively constructed and skills improved through interactions between learners. Scrivener (2005) illustrated how students interact with each other, as suggested in the suggested diagram.

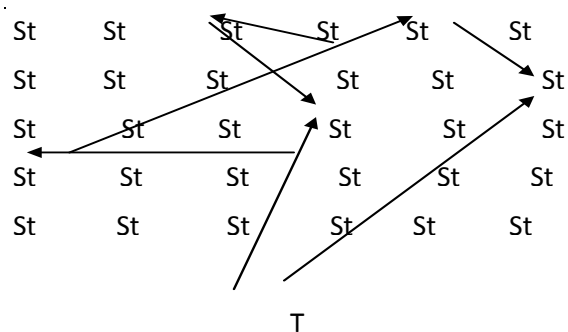


Figure 1.3 Interaction between Students (Scrivener, 2005, p. 86)

In this diagram, Scrivener suggested the reciprocity of the learning process between students in terms of sharing information and getting feedback from their classmates.

1.4.3 Student-Content Interaction

Student-content interaction was found to be a significant predictor of student satisfaction (Kuo, 2014) and had a considerable effect on the achievement of learning outcomes. Student-content interaction includes students' concrete interactions with the course materials and their more abstract interactions with the concepts and ideas they present. In other words, this type of interaction takes place when students themselves obtain information directly from learning materials. Accordingly, Moore (1989) defined student-content interactions as those that result in "changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind". That is to say, when students intellectually interact with the content, their active learning will be promoted. Student-content interaction may include reading informational texts, using study guides, watching videos, interacting with computer-based multimedia, and completing assignments and projects.

1.4.4 Student-Technology Interaction

Student-technology interaction addresses the preferences for technology according to the purpose of usage (Lehtinen, 2003). Without the initial interaction with technology,

students can not deal with the content of online instruction. Through the wide range of online activities mediated by technologies such as video conferencing, e-mail, chat, and instant messaging that are available within the interface, students have access to needed knowledge and information. However, two main issues should be discussed concerning student-technology interaction.

First, according to Bat-talio (2009), it is noticed that the majority of students seem to be comfortable with the electronic environment and already have a considerable online experience that replicates the campus classroom experience or the interactive methodologies associated with live online courses. Additionally, they can find and use available knowledge through a high level of technological affordances. Recent studies suggest that the learner-technology interaction may function at the fundamental level of interaction since unfamiliarity with technology leads to some challenges accessing learning materials (Anderson, 2004; Schrum & hong, 2002).

Second, Hirumi (2002) reported, “students should possess the skills necessary to operate the delivery system so that they can successfully interact with human and non-human resources” (p.23). He explained that students require certain skills to utilize communication or learning tools effectively and comfortably. More importantly, the desired outcome of student interaction with technology is that students learn the content and that the use of technology increases their willingness (Thurmond & Wambach, 2004). Therefore, technology serves as a motivational tool for the learning process.

1.5 Aspects of Classroom Interaction

An effective learning process primarily depends on two main aspects, which are the negotiation of meaning and the negotiation of feedback. According to Ellis and Foto (1999), interaction is privileged of meaning in case students receive feedback from their teachers or classmates.

1.5.1 Negotiation of Meaning

Negotiation of meaning is a fundamental aspect of classroom interaction, where learners actively involve themselves in interaction. Negotiation of meaning is defined as

the verbal exchanges that occur when speakers seek to prevent the breakdown of communication (Ellis & Barkhuizen, 2005). Ur (1996) viewed that it plays a major role in helping learners of the English language to get comprehensible input. For instance, when learners look for dividing the input into units in case of the negotiation break down, they will be able to comprehend them. Besides, the negotiation of meaning may also provide learners with feedback about the way of using their second language; it means that many teachers intend to use their target language in order to correct their students' mistakes when they discuss (Ur, 1996). Moreover, Pica (1992) argued that the negotiation of meaning is important in classroom interaction. It encourages students to adjust, manipulate, and modify their output since a successful negotiation depends on comprehensible outputs that are produced by students (cited in Ellis, 2003). Furthermore, she stated that:

The modification and restructuring of interaction that occurs when learners and their interlocutors anticipate, perceive, or have trouble in message comprehensibility. As they negotiate, they work linguistically to achieve the needed comprehensibility, whether repeating a message verbatim, adjusting its syntax, changing its words, or modifying its form and meaning in a host of other ways

(p. 494).

The value of negotiation of meaning enables students to concentrate on the form. For instance, negotiation involves feedback and modification to both input and output when students seek to repeat what they did not understand because of their difficulties in language use.

1.5.2 Negotiation of Feedback

Sàrosdy et al. (2006) pointed out that “feedback refers to the information that learners receive from their teachers about their performance, which will help them to take self-corrective action and improve their achievement” (p. 253). Most students are interested in their teacher’s feedback about their performance; they always try to avoid certain errors in order to get positive feedback.

Researchers have suggested that feedback is one of the key beneficial aspects of interaction that can promote learning. For instance, Mackey (2007, p.30) claimed, “Through interaction that involves feedback, the attention of the learners is paid to the form

of errors and are pushed to create modification”. Hence, to develop the speaking skill, learners must recognize their errors and try to correct them.

Therefore, feedback enables students to be sure about the principles and rules of their language. Mackey (2007) proposed a model for classroom interaction and feedback; he illustrated this model in the following diagram:

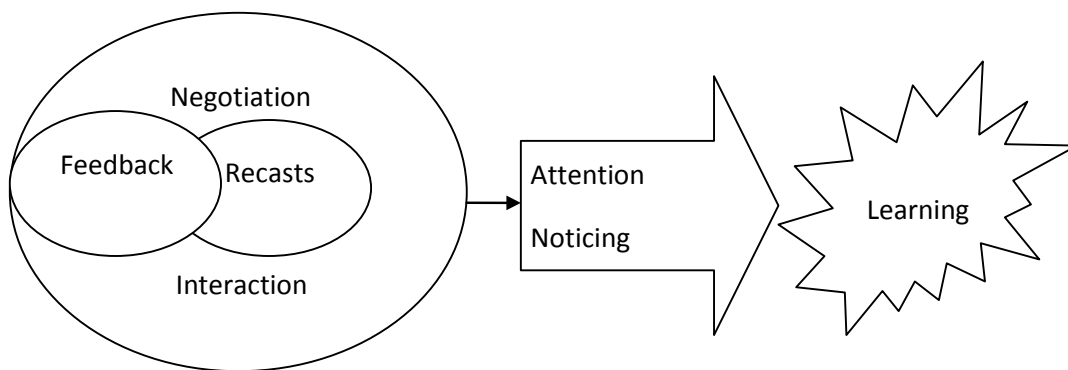


Figure 1.4 A Model of Interaction (Mackey, 2007, p. 79).

This diagram shows the relationship between interaction and feedback through changing roles/negotiation and recasts, in which the learning process may be influenced in a way that students may negotiate for meaning, interact with their teachers or classmates, as well as getting feedback. Moreover, Mackey (2007) suggested two forms of feedback: an explicit and implicit feedback.

- **Explicit Feedback**

Explicit feedback refers to any feedback that indicates that students do not employ their second language correctly during their performance. It is also called metalinguistic feedback because teachers provide the learners with the linguistic form of their errors. Harmer (2001) defined explicit feedback as a “form of feedback deals with the linguistic accuracy of students' performance. The teacher will record the errors the students are making during the activity and will give feedback on their successful achievement as well as discuss their errors and mistakes” (p. 246).

- **Implicit Feedback**

Implicit feedback is defined as corrective feedback that includes requests for clarification or recasts. In other words, teachers rephrase the learner's utterance by changing one or more sentence component. This form of feedback focuses more on the content of the learners' answers. Harmer (2001) pointed out that "content feedback involves the assessment of how well the student's performance was in the communicative activity, focusing on their ability to perform the task rather than dealing with the correctness of their language used in the activity" (p. 246). Therefore, in the implicit feedback, the teachers focus shifts from the form to the content.

Recently, numerous studies have shown that explicit feedback is more effective than implicit feedback. It means that in explicit feedback, the teacher draws the students' attention directly to the errors so that the students do not use them again. Nevertheless, in implicit feedback, the teacher asks students to reformulate their output to be understood, and this is indirect corrective feedback since the teacher does not point the errors directly. In brief, the feedback role of interaction is of crucial importance. Students often want to know how they are doing with their peers. However, teachers should not deal with all the oral production of the students all the time. They should make decisions when and how to react to the students' errors so that the interactive activity will not break down each time.

1.6 Techniques for Classroom Interaction

EFL teachers often use and follow some techniques for the sake of increasing interaction in their classes. Moreover, these techniques need to be fully accomplished to reach successful classroom interaction. According to El-Koumy (1997), EFL teachers should focus more on three main techniques: the scaffolding technique, the questioning technique, and the collaborative learning technique.

1.6.1 The Scaffolding Technique

Scaffolding is an instructional technique in which the teacher represents the desired learning outcome or task, and then gradually turns responsibility to the students. According

to Celce-Muria (2001), the word scaffolding means that “a teacher or adult structures a learning task and provides directives and clues using dialogue to guide the learner's participation in the learning task” (p. 195). When students tackle some new materials or knowledge, teachers should provide them with these instructions and clues. This technique includes activities such: as reciprocal teaching, provision of contextual cues, and the use of half-finished examples. These activities are temporary supports that help the teacher to interact with his students (Rosenshine & Guenther, 1992). Moreover, Scarcella and Oxford (1992) claimed that this kind of activities should be gradual withdrawn as students become more independent.

In the same path, various studies have been conducted to examining the effects of teacher/students reciprocal teaching on language performance and proficiency. These studies show that reciprocal teaching enhances lecture comprehension as well as the comprehension monitoring skills of students (Spivey, 1995). Furthermore, it improves reading comprehension with educationally at-risk pupils (Dao, 1994). Besides, it fosters students' attitudes toward reading (Karlolis, 1995). However, Bradford (1992) reported that poor readers who received reciprocal teaching did not improve more than those students who continued in regular basal reading instruction.

1.6.2 The Questioning Technique

Classroom interaction seems to be influenced by the questioning technique in which questions are addressed from teachers to their students. According to Aliponga (2003), EFL students do not initiate and maintain their language, so the teacher's question plays a significant role in providing the appropriate stepping-stones to encourage them to formulate or to answer questions. In an interactive class, the appropriate questioning can serve in many different functions; and most of the earlier studies conducted on the use of the questioning technique showed that this strategy had been exceedingly used in EFL classes. For instance, in Daly et al. (1994) study, they claim, “In classrooms, questioning on the part of teacher and students takes up a significant portion of the day. Across all grade levels, approximately 70% of average school day interaction is occupied with this activity...” (p. 27). However, Carlsen (1991) pointed out that the questions, which have

been asked to students, seem to make a challenge among them to motivate and encourage them to learn as well as to raise their interaction.

1.6.3 The Cooperative Learning Technique

The technique of cooperative learning refers to the set of instructional tasks and activities in which students learn with each other and work together. Cooperative learning is considered more effective than individual learning; it has an exceptional influence, as it is an instructional learning approach that includes the features of learner-centred approaches. For instance, Ford (1991) outlined a set of theoretical advantages of the cooperative learning technique. According to him, cooperative learning provides students with more opportunities to interact with each other, negotiate for meaning, work in different projects of interest, and participate in real-world communicative activities more frequently than in traditional teacher-fronted classrooms.

Similarly, Olsen and Kagan (1992) agreed that cooperation in second/foreign language learning includes more student talk, a more relaxed atmosphere, greater motivation, and an increased amount of comprehensible input. Additionally, it increases self-esteem and confidence as well as respect for others (Oxford, 1990).

1.7 The Interactional Strategies

According to Dornyeï and Scott (1995), interactional strategies refer to the strategies used by both teacher and students to exchange information cooperatively. They believe that the interactional strategies consist of the appeals for help, the repetition requests, the clarification requests, and the comprehension checks. According to Harmer (2001), appeals for help means that the learner needs aid concerning a specific point of interaction. This appears when he/she asks an explicit question, he/she may also guess an answer and then he/she will ask for help, verification, or correctness. Moreover, Pica (1988) argued that the explicit requests or repetitions used by non-native speakers are effective ways to adjust their utterances towards their partner's level. Concerning EFL learners, this strategy is important to ensure the interaction context and time. Additionally, Dornyeï and Scott (1995) claimed that clarification requests refer to the learners' requests for explaining unfamiliar meaning structures. Moreover, Lloyd (1991) viewed that this

strategy may help students develop their ability to communicate, as well as giving them the chance to obtain specific and detailed knowledge about new structures (cited in Kasper and Kellerman (1997). Furthermore, comprehension checks refer to the learners' questions about checking if their understanding is correct. According to Long (1983), comprehension checks strategies enable students to resolve certain difficulties concerning their understanding as well as make them negotiate the possible meaning.

1.8 The Management of Interaction in the Classroom

Teachers' management and organization considered as the main components of a successful classroom interaction process. According to Black (2005), the management of interaction among learners aims to enable every learner to use his/her language. Brown (2001) added that teachers' performance inside the classroom seems to be a kind of students' guide that provides students with the appropriate knowledge about what they are going to learn. Teachers and students need to be engaged in different classroom tasks to create conditions for the best use of language through an interactive language.

Furthermore, Brown (2001) declared that for an effective interaction, teachers need to know their students well. They may also create a strong and positive relationship with them by providing appropriate feedback, motivating and encouraging them to voice their ideas and feelings, as well as valuing what their learners think or say. Brown (2001) added that being aware of the learners' psychological state is considered as the key to managing classroom interaction. Therefore, the management of classroom interaction depends on the amount of teachers' understanding of their students. Then, teachers can only understand their learners' needs if they can understand them well.

1.9 The Interactive Whiteboard and Classroom Interaction

Numerous researchers have highlighted the impact of IWB use on classroom interaction. For instance, it improves discussions between students and teachers and increases open-ended questions and probes (BECTA, 2003; Higgins et al., 2005; Levy, 2002) that can help enhance cognitive processing capabilities within the learner (Moreno & Mayer, 2007).

Enhancing interaction in an IWB classroom depends on teachers' ability to organize the class content intentionally to increase the overall interaction in the classroom, particularly, their ability to use the IWB for that purpose (Tanner et. al, 2005).

Conclusion

To conclude, through this chapter, the researcher attempted to present a general overview of classroom interaction. Initially, it presented the different definitions of classroom interaction and its main importance in the teaching-learning process. Additionally, it provided the types and aspects of classroom interaction. It also spotted the light on the relationship between language acquisition and classroom interaction. Furthermore, it clarified the connection between the use of IWB and classroom interaction.

Chapter Two: The Interactive Whiteboard

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Introduction

Chapter two examines the incorporation of the interactive whiteboard (IWB) in education, specifically, in English language teaching and learning. It provides a number of definitions of the IWB technology as it describes some of its technical functionalities. It also summarizes the different types and the related devices of the IWBs. Additionally, it focuses on revealing the advantages of the IWB in EFL classes and views some practical activities of the IWB to improve the EFL classes' quality. It also investigates some of the drawbacks of the proposed technology and some barriers that may hinder this tool from being effective. Furthermore, interactivity in EFL classrooms is an increasing concern in EFL teaching and learning; hence, this chapter attempts to reveal how this concept is related to the IWB use.

2.1 History of Interactive Whiteboard

The first IWBs were adopted at Xerox Parc in Palo Alto, California. This company is tasked with creating computer technology-related products and hardware systems. It has been at the heart of numerous revolutionary computer developments as laser printing, the modern personal computer, graphical user interface and desktop paradigm. In the 1990s, Xerox Parc adopted the IWBs for office settings to overcome the limitations of blackboards or whiteboards (Greiffenhagen, 2002). The benefits of this technology on education was recognized early; however, the cost of IWBs was the main impediment not to enter educational settings until the mid-1990s when they became cheap enough to afford to be used in schools (Walker, 2005). Today, the use of IWBs is increasing in teaching and learning settings, especially in the UK, Denmark, and the USA. The argument behind this increase is that they help educators to create more interactive, motivating and attractive classes (McIntyre-Brown, 2011).

2.2 Definition of the Interactive Whiteboard

An interactive whiteboard is a touch-sensitive screen that works in connection with a computer and a projector; a presentation tool that interfaces with a computer. The computer images are presented on the board by a digital projector, where they can be viewed and manipulated. One of the advantages of the IWB is that users can control software from both computer and board. Besides, participants can add notations and

emphasize by using a pen or highlighter tool. By using their finger as a mouse, the teacher or students can manage applications directly from the board. Moreover, any notes or drawings can be saved, printed out, and distributed to group members. Hennessy et al. (2007) defined the IWBs as follows:

IWB systems comprise a computer linked to a data projector and a large touch-sensitive board displaying the projected image; they allow direct input via finger or stylus so that objects can be easily moved around the board or transformed by the teacher or students. They offer the significant advantage of one being able to annotate directly onto a projected display and to save the annotations for re-use or printing. The software can also instantly convert handwriting to more legible typed text and it allows users to hide and later reveal objects. Like the computer and data projector alone, it can be used with remote input and peripheral devices, including a visualizer or flexible camera, slates or tablet PCs (p.2).

Through this definition, the researchers offer insights into how the IWB may differ from other classroom technologies; it is a technology that combines the benefits of all teaching aids like the chalkboard, whiteboard, television, video, overhead projector, CD player and computer in one (Hall & Higgins, 2005).

2.3 The IWB in English Language Teaching (ELT)

It has been proved that the teaching process is positively supported by the use of IWBs in lessons; it is suggested that IWBs are used to reinforce current didactic teaching practices, as teachers can easily use them as a blackboard replacement (Schuck & Kearney, 2007). The question that can be proposed is to what extent it is needed to reconsider traditional pedagogical approaches that the EFL teachers have adopted and use them in their classes. Different studies have reported that the integration of the IWB use in lessons is based on the teacher's pedagogical approach or teaching style. To be able to teach a lesson with an IWB, the teacher sometimes must change his/her lesson plan, which can be seen as an advantage; but in some cases, teachers may consider it a disadvantage. Besides, several authors have found that teachers' pedagogical approaches, when using an IWB, were consistent with the approaches they used when teaching without technology (Bennett & Lockyer, 2008). Contrary to that, some authors claim that the impact of IWBs on teachers and their lessons is efficient in that they speak about a distinctive pedagogy (Haldane, 2007). In the initial stages, this situation led to supporting teacher-center approaches, but

through time, it continuously changed into the current state in which students have become the center of a lesson with the emphasis put on their active participation in lessons. To prove that, Sweeney (2010) reported that teachers move from the initial use of presentation capabilities connected with the IWB towards less scripted approaches of the use of IWBs in lessons. Furthermore, Mohon (2008), who analysed possible changes in teacher's pedagogy using IWBs, concluded that if a teacher uses an appropriate strategy to achieve a given object, the change will emerge. The presented results root from the analysis of teacher's experiences recorded in a reflective journal and from the students' responses in a questionnaire. Cogill (2010, p. 174) relied on the analysis of possible impacts of IWB uses on the pedagogy changes and presented "a framework for IWB pedagogy based on theory and empirical evidence from IWB practice." Within this framework, she defined three basic components when IWBs have the potential to change pedagogical knowledge. These components are:

- More time to teach through saving writing time during the lesson.
- Sharing pedagogical views through joint lesson planning.
- Flexible access to work at a later stage and more time for discussion to focus on effective learning.

However, a responsible teacher should be aware that even beneficial use of IWB could represent a threat to the lesson flow if the focus is given only to an IWB itself. In such cases, a lesson may become too teacher-center; and the motivating factor of IWB's presence on a lesson becomes demotivating. It is the responsibility of all teachers to keep the balance between the appropriate use of IWBs and traditional teaching activities and methods (Goodison, 2003).

2.4 The Technical Functionalities of an IWB

A variety of IWB definitions claim that the IWBs are different from other technologies used in the classroom. In this section, some of the intrinsic technical functionalities of IWB are presented as follows:

- **Textual annotation:** to support knowledge construction using labels and links.
- **Handwriting conversion:** to aid legibility or student spelling and implicitly reinforce the aim of quality presentation.

- **Freehand drawing:** to support teacher and student generation of diagrams/ sharing of multiple representations.
- **Shrinking images and text:** to create board space while keeping objects accessible.
- **Enlarging and zooming:** to focus attention and examine details; also used with iCam.
- **Graphical annotation:** to draw attention to key concepts/ features/ components by coloured circling and highlight.
- **Spotlight/ shaded box/ hide and reveal:** to attract the students' attention to a specific area of the board screen.
- **Drag and drop:** to support interactive displays and demonstrations; also sorting and matching activities.

2.5 Types of the IWBs

There are several types of IWB technology, with the two main ones being resistive membrane and electromagnetic pickup. Some are still quite experimental, but all point to an interesting future. The following types are an overview of the various IWB technologies available.

2.5.1 Resistive Technology

Resistive membrane whiteboards support touch-based interaction. The whiteboard involves a soft membrane surface that deforms when touched to make contact with a conducting plate. When the contact is detected, the touch location is transmitted to the computer. The user of the IWB can use his finger or a pen for interaction, which means that no special hardware is needed. Some touch-based whiteboards support the use of dry-erase markers and can replace ordinary whiteboards. Overall, this type is considered the least expensive type compared to the other types of interactive whiteboard.

2.5.2 Electromagnetic

Electromagnetic whiteboards have an embedded wire mesh that uses electricity to produce a magnetic field. With these IWBs, a special pen with a metal tip must be used to interact with the screen, but it is also more precise than simple touch technology. When

the pen that contains a coil in its tip is pressed on the surface of the whiteboard, the electrical signals produced by the mesh are altered in such a way that the pen's location can be detected. In other words, there are magnetic sensors on the board that react and send a message back to a computer when they are activated by a magnetic pen.

2.5.3 Laser Scanner

This type of IWBs is the common expensive one since it is based on laser scanner technology. These infrared laser scanners, which are mounted at each corner, detect movements on the board. Special pens with encoded reflective collars are used for interaction; the whiteboard's software can detect different colours based on the pen collar. This type of boards typically has a hard surface and can easily be used as a regular whiteboard with dry-erase markers (Watson, n.d).

2.6 Advantages of the Use of IWBs in Classroom

Evolutions in technology allow for using its services to boost language teaching-learning quality. While counting the benefits of technology in education, several criteria are considered, and various perspectives and opinions are consulted. Teachers try to find to what extent this new technology will facilitate the teaching process, help in providing instructional material, and decrease the load work. As to students, who are indulged in technology, they try to relate their academic performance to such a novelty.

2.6.1 Advantages of IWB to Students.

Many studies have proved their positive impression on the improvement of learners' motivation working with IWBs on lessons regularly. BECTA (2003) stated that students are more motivated in lessons that include an IWB because it engages them and stimulates student participation by motivating students to interact with the board and manipulate text and images. This motivation is fundamentally caused by the graphical capabilities of the IWB (use of colours, images, and videos) and the possibility to use tools directly over it (stylus pen, hand or fingers). Besides, teachers argued that the students enjoy having their work on the IWB itself (Wall et al., 2005); they also commented on how IWB technology allows students to get up to the board and interact with it. As a result, students' engagement and participation are enhanced (Miller & Glover, 2010).

Enhancing conversation is one of the advantages of the IWB. For example, the teacher can concentrate on the students' language production rather than technical issues. When he/she is navigating from item to different items, students are faced and interacted with their teacher. The IWB has another advantage that is encouraging communication using a wireless keyboard. The teacher can interact with his/her student, practicing, reading a text or creating a conversation, for example. The conversation may develop smoothly through typing a new word onto the board to create the required conversation and the students do not have to write the word instantly (Al-Saleem, 2013). As a result, using images may provide the best assistance in creating such conversation.

Erbas, Ince, and Kaya (2015) stated that IWBs might make a clear difference in learners' achievement. For instance, in a study conducted by Amiri and Sharifi (2014), the research findings indicate that students used adverbs in their writing more appropriately, when IWBs were used for teaching. Similarly, there is a shred of evidence that the use of IWB can boost student achievement. Zittle (2004) explored the effects of the IWB lessons on students learning by comparing pre- to post-test gains between 53 students whose teachers used IWBs with 39 students whose teachers did not. He finds statistically significant differences between the groups, with the IWB group obtaining an average gain score of 20.76 and the control group averaging a gain of 11.48.

Furthermore, Pennington (1996) argued that the computer sometimes has the power in fostering that kind of anti-social behaviour that leads to work in isolation from others. This is a common criticism for using a computer. It is specifically relevant to EFL teacher who is supposed to interact with the class as much as possible. Materials should be presented via educational websites because they can enhance oral interaction within the whole class. In this stage, opinions, ideas, and thoughts can be exchanged; this will gain more benefits if the students navigate the large screen instead of their teacher. The other students may guide each other. As proposed for group activities that use the computer (Abraham & Liou, 1991; Chapelle, 2003), students are encouraged and brought together in a communicative feature by incorporating the interactive whiteboard. Given the projects on the large screen, students can present and have the opportunity of speaking with their other classmates. Without having to worry about the mouse, this let them have the ability to converse with each other. Images and provided text are displayed immediately with a

simple touch of a finger; in this way, the oral production of the target language is placed in the appropriate situation (Al-Saleem, 2013).

2.6.2 Advantages of IWBs to Teachers

In this new form of technology, the user can control from the board; he does not need to go continually back to the computer, which results in turning his back to the class each time. Consequently, the instructor is able to spend more time focusing on the learning process and student rather than on the technology itself. This is crucial when using interactive whiteboards to teach as well as in EFL classrooms. Numerous foreign language teachers realize how difficult to have a relaxed conversation in the target language with students; however, the IWB can facilitate particular types of conversations in a way that all individuals in the classroom may focus on the same issue at the same time (Al-Saleem, 2013).

Additionally, the use of IWBs provides different opportunities for teachers. Walker (2005) stated that IWBs work in conjunction with other technologies, so their use allows teachers to reach several resources in the shortest time possible. Levy (2002) also pointed out that IWBs provide teachers with the means to include multimedia resources such as written text, video clips, soundtracks and diagrams into their classes. Thus, IWBs help teachers to arrange their classes in ways that address the needs of students with different learning styles such: as visual, auditory and kinesthetic (Miller & Glover, 2010).

One of the fundamental uses of the IWB is its assistance in introducing new linguistic and cultural elements. As usual, a teacher can prepare a lesson in a Notebook file or Word Document, which can be taken as an advantage. The instructor can use the IWB in several tasks such as overwriting, underlining, highlighting or circling the components that he/she wants to emphasize. Since the document is well typed, students can easily read it. It can also be saved and showed at any time in the future (Al-Saleem, 2013). Besides, the characteristics of the IWB can make a clear difference. For instance, it provides valuable help when presenting authentic documents such as websites. These sites enable the teacher to browse the document at length instead of remaining at a simple level of presentation. Some studies suggested the positive impact of authentic documents in language learning (Bacon, 2011; Allen, 2010). Through the use of the IWB, the educator

can not only project a website but he/she can also overwrite it to emphasize specific linguistic and cultural components through the process of navigating the site with the use of one's finger driven on the large screen.

The physical features of the IWB are often viewed as an advantage. Firstly, the size of the IWB provides teachers and students with a large display area (Walker, 2005), which in turn, provides teachers with the opportunity for more effective whole-class teaching (Miller & Glover, 2010). Besides, IWB allows teachers to manipulate documents using the board itself instead of using the computer keyboard or mouse (Gerard, Widener & Greene, 1999). Thus, the board can enhance conversation in the classroom since teachers face the class and interact with the students (Gerard et al., 1999).

2.7 The Drawbacks of IWBs in Classroom

Although the use of IWB technology is growing rapidly, similar to all other new technological tools, it has become the target of criticism by some researchers. According to Walker (2005), IWB technology, like any technology, has the potential to have technical problems. These glitches may result from problems with the computer, the network connection, the projector or even a problem with the board itself. Wall, Higgins and Smith (2005) argued that such kinds of technical problems might cause learner frustration.

Similarly, preparing the materials that are used on the IWB can take a long time, especially when teachers lack computer training skills such as word processing, file navigation, databases or how to use the particular tools relevant to IWBs (Walker, 2005). This situation may cause teachers to use the IWBs inefficiently. Furthermore, lack of knowledge on how to use this technology may cause the instruction using IWBs to turn into a struggle for teachers, as they may not feel competent and confident while using the board (Schmid, 2009; Walker, 2005).

In line with these drawbacks, many factors hinder IWBs from being effective, such as their cost. They are expensive to purchase compared to other presentation technologies such as overhead and slide projectors (Higgins, Beauchamp & Miller, 2007). Although their cost has decreased since they emerged in educational settings, they still require a considerable budget to purchase for many schools (Walker, 2005). Therefore, government support is often required to integrate IWBs into schools.

Despite all the disadvantages that have been listed regarding the integration of the IWB, this tool is still considered as the one that can provide the 21st-century learners and teachers with navigating text, audio, video, social media, and digital interactive sources. In sum, the IWBs have a bright future for improving EFL classroom interaction.

2.8 The IWB and Interactivity

The idea of collaboration has been the interest of many researchers that investigated the interactive nature of IWB. The interactive use of IWB allows spontaneous and collaborative teaching and learning (Kennewell & Beauchamp, 2007). Thanks to the innovative activities it permits, students can learn together on the board, watch and interpret a simulation of a mechanism. To demonstrate, students can match words to their corresponding pictures while being coached by the teacher or in collaboration with their peers (Schmid, 2008; Kennewell & Beauchamp, 2007). As to interaction, it is relevant to the technical function of the board (the production of sound) when touching a picture, for example. Smith et al. (2005) credited the efficiency of “the technical interactivity” of an IWB as the reason that teachers can speed up the pace of a lesson (p. 93).

Moreover, interaction can be analyzed on an individual level or collective level within the classroom system. Interactivity on the individual level has its origins in the way learners are prepared to interact with the board, to the extent that learners interact with content and engage in their learning. It involves various skills used by learners, for instance, activating background knowledge, critically thinking, interpreting, analyzing, reasoning and producing a sense of information and drawing on new approaches for accessing and constructing knowledge following their own pace. On a collective level, interactivity refers to the exchange of information within a group between peers. That is to say, learners will interact with their peers in a small or large group to work on activities or tasks. In this interactive atmosphere, students will appreciate the value of discourse; and collaboration through shared construction and exchange of information. The role of the teacher would be managing the learning environment, and students would be immersed in their learning, inquiring, exploring, and constructing knowledge under the guidance of their teacher (Lim-Fong, 2010); this corroborates with the implications of the social constructivist theory.

According to Glover and Miller (2007), teachers proceed through three stages of interactivity when using the IWB: supported didactic, interactive stage, and enhanced interactivity. At the supported didactic stage, the IWB is used as visual support before it is used as a pedagogical tool. At this stage, most of the students' attraction is the result of the novelty factor. The second stage, the interactive stage, is transitional or can even be called an experimental stage. The teacher uses a variety of stimuli to illustrate, develop, and test discrete concepts. The IWB becomes the focal point of the lesson, and teachers still show an occasional lack of confidence as they still search for new approaches to pedagogy. At this stage, teachers are more excited and share their experiences with other teachers. The third stage, the enhanced interactivity stage, is when the teacher exploits the interactive capacity of the IWB to integrate concepts and cognitive development. IWB is then used to explain processes, prompt discussions, develop hypotheses. This stage requires advanced skills from the teacher, for instance, careful lesson preparation that includes verbal, visual, and kinaesthetic activities. It also requires the ability to store and edit lessons as well as the willingness for pedagogical change. The enhanced interactivity is the finale point of using the IWB to achieve a positive impact on teaching learning process

Conclusion

This chapter reported the literature related to the integration of the IWB on teaching and learning English as a foreign language. Besides, it included definitions of the IWB, its main technical functionalities, and the IWB in English language teaching (ELT). Additionally, different types of IWBs have been discussed in this chapter mentioning their ways of working. Since it is a powerful tool, most of the studies have confirmed that using the IWB in EFL classes has a significant role; however, it may also have drawbacks when it is used inappropriately. Moreover, this chapter examines the effectiveness of using the IWB to improve EFL classes' interactivity.

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Introduction

The present chapter deals with the fieldwork of the study. It consists of two parts. The first part deals with the theoretical background of the research methodology of the under-investigated study, namely, research approach, research design, population, sampling, and data collection methods. On the other hand, the second part aims to check the effectiveness of the IWB as a pedagogical tool to improve EFL classroom interaction. Furthermore, it presents a detailed analysis and interpretation of the gathered data; besides, discussing and synthesizing the findings are also provided in this chapter. It also presents the results to check the validity of the suggested hypothesis.

3.1 Research Methodology

Every research requires a specific research methodology that the researcher goes through while conducting her/ his research.

3.1.1 Research Approach

In its general sense, the research approach can be defined as the theoretical framework of research that a researcher chooses depending on the nature of her/ his study. Besides, the research approach comprises three types: qualitative approach, quantitative approach, and mixed-method approach. Creswell (2014) states the difference between these types of research approaches; on the one hand, he says that a qualitative approach is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human people. To explain, this type of research approach deals with describing, exploring, or understanding a specific phenomenon.

On the other hand, he defines quantitative approach as an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. Simply, quantitative approach deals with testing theories or relationships between variables, and measuring data using statistics. Finally, according to Creswell (2014, p.4), “a mixed method approach is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical

frameworks". In other words, mixed-method approach combines both quantitative and qualitative research approaches; hence, it deals with people's ideas and attitudes in addition to the use of numbers and statistics.

3.1.2 Research Approach for this Study

Since the aim of this study is to find out opinions and views about the effectiveness of using the IWB to improve EFL classroom interaction and to find out the link between these variables, this study adopted the qualitative approach. Regarding the nature of the study, this approach helps to get more detailed and credible responses. More importantly, it gives the chance to know students' attitudes and perceptions towards the use of IWB as a pedagogical tool for enhancing EFL classroom interaction.

3.2 Research Design/ Strategies

Any researcher should be familiar with her/ his research design and choose it carefully because it is essential for the research organization. Gorard defines research design as follows:

Research design in the social sciences is a way of organizing research project or program from its inception in order to maximizing the likelihood of generating evidence that provides a convincing answer to the research questions for a given level of resources (2013, p. 8).

In other words, a research design is a way of organizing the research from the first to the last step to obtain credible results. According to Bhattacharjee (2012, pp. 39-40), research design has different forms. He dictates a series of research designs such as field survey, experimental studies, cross-sectional field survey, longitudinal field survey, focus group research, action research, and case study research.

3.2.1 Research Design for this Study

Due to time and research nature, a case study (small-scale study) is adopted as a research design for the present study. The main reasons behind choosing this research design are as follows: a case study simplifies the complexity of the discussed issue and makes it easy to be understood. Besides, it helps to describe the data in real life at a macro

level and gives a deep insight into the behaviours of the subjects (Zainal, 2007, pp.1-6). Thus, this type of research design is suitable for this study.

3.3 Sampling and Population

To check the validity of the hypothesis and gather some information, which help answering some research question, the researcher dealt with EFL students to collect their feedback to feed the study.

The population of this study was the First year EFL students at Omar Idriss Secondary School of El-Kantara. There are several reasons behind choosing this population. For instance, the participants meet certain practical criteria such as easy accessibility, geographical proximity, availability at a given time, and the willingness to participate in the study (Dörnyei, 2007). More importantly, first-year EFL students have been chosen because it is observed that classroom interaction is decreased in their classes. Therefore, as new students at secondary school, they need effective, practical and new tools to guarantee their development in participation to improve classroom interaction. From a population of about (n=140) students, the researcher dealt with fifteen (n=15) who have been chosen according to a non-random convenience sampling.

3.4 Data Collection Methods

Data collection is defined as the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques. That is to say, data collection methods are essential to have effective results; thus, the researcher should choose them carefully behind taking into consideration her/ his research theme. Additionally, there are several methods to collect data, for instance, questionnaires (structured, semi-structured, and unstructured), interviews (structured, semi-structured, and unstructured), observations (active and passive), focus groups, and quasi-experiments.

This study dealt with a semi-structured questionnaire to gather data from first-year secondary school students about the impact of the IWB on classroom interaction. Moreover, the researcher conducted a passive classroom observation to examine students' adaptation to the employment of the IWB.

3.5 The Questionnaire

Brown defines questionnaires as “any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting them among existing answers” (2001, p.6). Moreover, the questions can be open-ended, closed-ended, or a mixture between them; and this determines the type of the questionnaire (structured, semi-structured, or unstructured).

3.5.1 Aim of Students’ Questionnaire

The researcher opted for a semi-structured questionnaire as a data-gathering tool whose aim is to collect EFL students’ views, attitudes, comments, and feedback about integrating the IWB in EFL classes.

3.5.2 Validating and Piloting the Questionnaire

The construction of a well-structured questionnaire necessitates the stage of validating and piloting. To validate data, the researcher submitted the questionnaire to the supervisor as an expert to check the extent to which the designed questions measure the target issue. However, in piloting, she provided the instrument to a sample similar to the one she chose as her intended research sample. The sample’s feedback reflected the quality of the questions and enabled the researcher to reveal the weaknesses. Such practice contributed to design a comprehensible effective final version (Dörnyei, 2003).

Accordingly, the supervisor agreed that questions meet the objectives of the tool. Nevertheless, he made some beneficial remarks about some points that were supposed to be changed to add more precision to the questionnaire. For more details, the supervisor proposed to avoid the use of acronyms in questions such as “IWB”. Moreover, he recommended adding the “neutral” option in the table of the fourth question, then placing it between “agree” and “strongly disagree”. Additionally, changes included the omission of two open-ended questions because they do not suit the research since students did not use the IWB before. From the aforementioned remarks, the students and the supervisor’s feedback were taken into consideration one by one before and while designing the final draft of the questionnaire.

3.5.3 The Administration of the Questionnaire

The questionnaire was administered to participants via the internet. Facebook groups were the main digital platform to reach students. The online questionnaire was designed using the services of the survey software Google Forms. The platform provides many facilities to vary the structure of the question including the Likert scale, multiple-choice, open-ended questions, and a section to improve the overall appearance. After discussing with the supervisor, it has been decided to submit the questionnaire to the only 15 students who used the IWB because the others cannot answer the questions; since they did not use this tool before. Thus, the idea of using Facebook was beneficial; it helped to receive the intended number of the answered questionnaire.

3.5.4 Description of the Questionnaire

The questionnaire was used to collect data for investigating the effect of incorporating IWBs to boost EFL classroom interaction. The factual, behavioural, and attitudinal questions aimed at exploring the two main variables of this research, mainly classroom interaction and the IWB technology. Accordingly, we develop the questionnaire to include three sections structured as follows:

Section One: General information (from item 1 to item 4)

The first section of this questionnaire contains four (4) items aimed to collect general information about the respondents. For instance, the researcher asked about students' gender and how they found learning English at secondary school with justifying their answers. Furthermore, we intended to gather students' opinions towards if using technology has great importance in learning English as a foreign language and cite some technologies used by their teacher.

Section Two: Classroom Interaction (From item 5 to item 12)

The ultimate goal of this section attempted to investigate the reasons behind the importance of interaction in EFL classes. It also aimed at elucidating the students' preferred types of classroom interaction by giving them options to choose. Moreover, this section estimated to know the students' reflections on the instructions provided and their

opportunities to participate in the classroom, as well as their interaction incentives and obstructions. Besides, it helped us to have an idea about the interactional techniques used by the teacher that encourage students to interact. Furthermore, it collected the participants' information about the extent to which their teacher corrects their mistakes and how they feel when they are provided with negative feedback.

Section Three: The Interactive Whiteboard (From item 13 to item 20)

The third section of the questionnaire consists of eight (8) questions, which focused on the IWB technology. From this section, we aimed to gather students' thoughts about what kind of technologies are available in their secondary school by suggesting to them some technological tools; and the IWBs were among them. Besides, students were requested to give their opinions about the IWB and its effectiveness as a tool for developing classroom interaction with justifying their answers. It also aimed to collect students' opinions about the benefits of adopting the IWB in EFL classes. The benefits and challenges of adopting the IWB were also investigated in this section. Moreover, it aimed at reporting to which extent they agree that students can develop their ideas better during the lesson because of the diagrams, charts, and webs displayed via the interactive whiteboard. Finally, in the last question, students were proposed to state their expectations, **suggestions, or comments** about the integration of the IWB.

3.5.5 Analysis and Interpretation of Students' Questionnaire

As a first tool to collect data for the under-investigated study, we designed this questionnaire to collect information, opinions, and thoughts from students then analyze, interpret them to test (prove/ reject) our hypothesis.

Section One: General Information (From item 1 to item 4)

The foci of this section are to have an idea about students' opinions and beliefs. This section encompassed four items: sample' gender, their opinions about learning at secondary school, how they look to the application of technology in education, and the type of technologies used by their teacher.

Item 01: Students' gender

From this item, we wanted to have an idea about the gender distribution of the participants and the category that dominates EFL classes.

Table 3.1

Respondents' Gender Distribution

Option	Participants	Percentage
Male	06	40%
Female	09	60%
Total	15	100%

Table 3.1 demonstrates the respondents' gender distribution. As it is shown, it presents the number as well as the percentage of females and males. It is observed that nine (9) respondents (60%) were females, whereas five (5) respondents (40%) were males. This result was expected since the number of female students is observed to be higher than male students in recent years. This also means that females are more interested in learning, especially in the scientific stream (the chosen sample)

Item 02: Respondents' opinions about the difficulty of learning English at secondary school

This question was asked to respondents to give their evaluation about learning English at secondary school.

Table 3.2

Respondents' Opinions about the Difficulty of Learning English at Secondary School

Option	Participants	Percentage
Easy	6	40%
Difficult	8	53.4%
Very difficult	1	6.6%
Total	15	100%

As the table 3.2 indicated, the majority of respondents (8 respondents) that represent (53.4%) noted that learning English at secondary school is difficult, while six respondents (6) that represent (40%) claimed that learning at secondary school is easy; however, one respondent (6.6%) think that learning at secondary school is very difficult. As a result, the level of difficulty of learning at secondary school is limited between easy and difficult.

Respondents' Justifications of their Answers

In this question, the respondents were asked to justify their answers. Their justifications were varied and convinced. On the one hand, students who answered with “easy” pointed that they are interested in learning English. In the same path, others listed some factors that made learning at secondary school easy for them, such as “reading books”, “watching movies”, and “listening to songs”. Besides, two respondents summarized this choice by saying that “it is quite easy to learn English at secondary school since we have already acquired the basics of the language at middle school”. Therefore, according to our respondents, learning at secondary school is easy with extra efforts such as reading books, watching movies, and listening to English songs.

On the other hand, those who answered with “difficult” justified their answers by saying that moving from one level to another is difficult because they are dealing with a new system and new aspects of the language. Additionally, the other justifications denoted that examinations are the reason behind the difficulty of learning process; one of the respondent said, “I did not understand the questions in exams”. Moreover, a number of students limited the difficulty of learning at secondary school to writing; they agreed that writing is a complicated process.

However, one respondent answered that learning at secondary school is very difficult because he did not understand what the teacher says. For more explanation, he explained that he did not acquire the basics of the language, as it should be.

From the respondents' justifications, we extracted that learning at secondary school can be easy if students make extra efforts, for instance, watching movies, reading books, and listening to English songs. Likewise, learning at secondary school can also be

challenging when it is affected by some external factors as the nature of examinations and the unfamiliarity with the new system. Additionally, it can be difficult for students to learn English when they did not acquire the language basics.

Item 03: Respondents' opinions about the impact of technology in learning English

The reason behind constructing this question was to reveal the participants' opinions about the impact of technology in learning English as a foreign language.

Table 3.3

Respondents' Opinions about the Impact of Technology in Learning English

Option	Participants	Percentage
Yes	14	93.3%
No	01	6.7%
Total	15	100%

As reported in Table 3.3, a percentage of (93.3%) considered that technology has great importance in their language learning, while (6.7%) claimed the opposite. This result was not surprising since the new generations use different technologies to support their language learning.

Item 4: Type of technologies used by teachers in the classroom

This question was created to explore the different types of technologies used in EFL classes at secondary school.

Table 3.4

Type of Technologies Used by Teachers in Classroom

Option	Participants	Percentage
The teacher uses the computer and projector	11	73.33%
The teacher uses online platforms like Google classroom,	01	6.67%
The teacher does not use any kinds of technologies	03	20%
Total	15	100%

As Table 3.4 shows, eleven students (73.33%) agreed on the use of computer and projector by their teacher. Besides, three students (20%) stated that their teacher does not use any kind of technology, and he is satisfied with using other methods to teach. The exception was only for one student (6.67) who reported that their teacher uses online platforms like Google classroom. We concluded that the secondary school of Omar Idriss at El-Kantara provides only one kind of technology, which is the data show. Therefore, future teaching pedagogies should cope with the digital evolutions for reaching a satisfactory educational level.

Section Two: Classroom Interaction (From item 5 to item 12)

This section was designed to focus more on the variable of classroom interaction. It attempted to investigate the importance of interaction in EFL classes. Moreover, this section estimated to know the students' reflections on the instructions provided and their opportunities to participate in the classroom, as well as their interaction incentives and obstructions. Besides, it helped to have an idea about the interactional techniques used by the teacher that encourage students to interact. Furthermore, it collected the participants' information about the extent to which their teacher corrects their mistakes and how they feel when they are provided with negative feedback.

Item 05: Students' agreement or disagreement with the following statements

5.1 The process of learning a foreign language depends mainly on the concept of classroom interaction.

The purpose of this question was to explore to what extent participants relate classroom interaction to learning a foreign language.

Table 3.5

Participants' Perceptions of the Relationship between Classroom Interaction and Learning a Foreign Language

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
The process of learning a foreign language depends mainly on the concept of classroom interaction.	07	06	01	01	00	15
Percentage	46.66%	40%	6.67%	6.67%	0%	100%

Table 3.5 indicates a notable percentage of the students (46.66%) answered with “strongly agree”, while (40%) is the percentage of students who responded with “agree” by making the (86.66%) of positive responses. However, (13.34%) of the respondents answered with “neutral and strongly disagree”. Therefore, there is a strong relationship between the process of learning a foreign language and classroom interaction. Additionally, participants agreed that classroom interaction was a significant factor affiliated with learning quality.

5.2 Classroom interaction helps students to increase their language knowledge

Through this item, we attempted to know the impact of classroom interaction on student language knowledge. To gather students' opinions, they were asked to indicate to

what extent they agree with the statement, which indicates that classroom interaction helps them to increase their language knowledge.

Table 3.6

Students' Views about the Effect of Classroom Interaction on their Language Knowledge

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
Classroom interaction helps students to increase their language knowledge	12	01	02	00	00	15
Percentage	80%	6.67%	13.33%	0%	0%	100%

Statistically speaking, none of the respondents (0%) accepts that classroom interaction can not increase their knowledge. Thus, those respondents proved and believed that they build their language knowledge depending on the interaction and participation in the classroom. Whereas, a couple of respondents that represent (13.33%) stated their positions as neutral. However, table 3.6 indicates students' highest percentage of strong agreement (80%), while (6.67%) of them mention their agreement about the crucial role of classroom interaction in making the students' language knowledge improved. Hence, we can conclude that these respondents are aware of the importance of class interaction.

5.3 Classroom interaction facilitates vocabulary learning

This item targeted first-year students at secondary school to collect their beliefs if they agree with the statement, which indicates that classroom interaction facilitates vocabulary learning.

Table 3.7

Students' Views about the Effect of Classroom Interaction on their Vocabulary Learning

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
Classroom interaction facilitates vocabulary learning	12	02	00	01	00	15
Percentage	80%	13.33%	0%	6.67	0%	100%

To summarize the yielded data, a notable percentage (80%) refers to those who strongly agreed on the effect of classroom interaction on vocabulary learning. Besides, (13.33%) of them indicated their agreement and only (6.67%) of them opted for “strongly disagree”. As a result, Omar Idriss EFL learners have a higher level of acquiring vocabularies when classroom interaction is improved because a great number of students (12) consider that classroom interaction facilitates their vocabulary learning.

5.4 Classroom interaction leads students to communicate effectively in classroom using the target language (English)

This item aimed to collect respondents' opinions about the position that make classroom interaction more effective in making them effective communicators using the English language in the classroom. Classroom interaction plays a significant role in changing learners' attitudes towards learning. Hence, they were asked to mention to what extent they agree that classroom interaction can improve their communication inside the classroom.

Table 3.8

Students' Views about the Role of Classroom Interaction on their Communication

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
Classroom interaction leads students to communicate effectively in classroom using the target language (English)	11	02	01	01	00	15
Percentage	73.33%	13.33%	6.67%	6.67%	0%	100%

As it is illustrated in table 3.8, the results show that the majority of students (73.33%) reported their strong agreement that classroom interaction can have a positive effect on their communication. Besides, two students (13.33%) indicate their agreement about the mentioned statement. However, one student (6.67%) selected "strongly disagree", and another student (6.67%) held a neutral position toward the provided statement. From these results, it is clear that the majority of students (86.66%) gave classroom interaction importance, as it is a way of increasing communication, which leads to the effective use of the target language.

5.5 Through interaction, the learner can decompose the teaching-learning structures and derive meaning from classroom events

This item aimed to know to what extent learners agree on the statement, which indicates that through interaction, the learner can decompose the teaching-learning structures and derive meaning from classroom events.

Table 3.9

Students' Ability to Decompose the Teaching-Learning Structures and Derive Meaning

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
Through interaction, the learner can decompose the teaching-learning structures and derive meaning from classroom events	08	05	01	01	00	15
Percentage	53.33%	33.33%	6.67%	6.67%	0%	100%

As the table indicates, eight students (53.33%) strongly agree with the provided statement as is shown in table 3.9. Besides, (33.33%) of them agreed upon the same idea. However, the rest of the students (2 students) took other positions. One student showed their strong disagreement about the proposed item, maybe, because he could not concentrate in the lesson to know what is happening in the classroom; While the other one (6.67%) selected "neutral". Therefore, a strong agreement was observed in the vital role of classroom interaction that makes students decompose the teaching-learning structures and derive meaning from classroom events

Item 6: Students' preferred type of classroom interaction

After the confirmation that classroom interaction is of great importance in learning EFL, we designed this item to know what types of classroom interaction are more preferred to students.

Table 3.10

Students' Preferred Type of Classroom Interaction

Option	Participants	Percentage
Teacher-student interaction	06	40%
Student-student interaction	00	0%
Student-content interaction	00	0%
Student-technology interaction	09	60%
Total	15	100 %

Statistically speaking, “student-technology interaction” choice has been selected by (60%) while “student-teacher interaction” got a percentage of (40%). Whereas, none of the respondents (0%) opted for “student-student interaction” and “student-content interaction”.

Respondents' Justifications

While justifying the choice of “student-technology interaction” for this question, the respondents listed one reason behind preferring this kind of classroom interaction. They reported that through technology, they became motivated to interact with their peers, teacher and even with the content of lessons. However, (40%) of students listed a wide range of reasons to justify their choice. Some of them dictated that “student-teacher interaction” is preferred to them since the teacher acts as a guidance that provides them with feedback if they commit mistakes. Besides, others reflected “the student-teacher interaction” importance to the simplicity provided by the teacher in explaining incomprehensible ideas.

From what is mentioned above, the majority of respondents acknowledged that they prefer “student-technology interaction” and “teacher-student interaction”. It was expected that participants would select the two choices since they are new students at secondary

school, and they need the teacher to guide them, as they need new techniques to motivate them using different technological tools.

Item07: The Frequency of students' opportunity to participate

In this item, students were asked to indicate how often their teacher gives them the opportunity to participate.

Table 3.11

The Frequency of Students' Opportunity to Participate

Option	Participants	Percentage
Always	07	46.66 %
Usually	06	40%
Sometimes	01	6.67%
Rarely	01	6.67%
Never	00	0%
Total	15	100%

Through table 3.11, we noticed a slight difference between students who opted for “always” and “usually”. For more details, (46.66%) of students stated that they are always given chance to participate. On the other hand, the number of students who said that they are usually allowed to participate equals (40%). Besides, a percentage of (6.67%) claimed that sometimes their teacher gives them the opportunity to participate and the rest (6.67%) opted for “rarely”. Hence, no student answered that the teacher never allows him/her to participate.

Respondents' Justifications

The participants were asked to explain when their teacher gives them chances to participate. To sum up respondents' justifications, the only two exceptions are the ones who affirmed that they are sometimes/rarely allowed to participate; and they did not provide any justification. However, those who answered with “always” and “usually”

offered several justifications. To mention some, nearly the overall answers detected that students are given opportunities to participate when correcting tasks and doing activities. Others claimed that they are allowed to express their ideas when the teacher asks them about the previous lesson (Warming up). Depending on these results, we can say that all the students believe that their teacher is the only one who controls the frequency of their opportunity to participate in the classroom according to their willingness.

Item 08: Students' interaction incentives

This question aims to discover the students' incentives for their interaction in the classroom; hence, the respondents were asked to indicate whether their interaction is a result of their desire or because of their teacher desire.

Table 3.12

Students' Interaction Incentives

Option	Participants	Percentage
You want to interact	12	80%
The teacher wants you to interact	03	20%
Total	15	100%

As it is noticed in table 3.12, (80%) of students revealed that when they engage in an interaction with their teacher, it is because they want to interact. While three students (20%) have claimed that when they engage in an interaction with their teacher, it is because their teacher wants them to interact. According to these results, it is clear that most of the first-year students are always hardly trying to interact with their teachers since they consider this interaction as the first step in understanding the content of the lesson and therefore, they will be able to learn the English language.

Item 09: Students' interaction obstructions

This item sought to investigate the obstacles that prevent students from interacting. They were given some suggested options to choose from, and they were free to indicate other obstacles and state them.

Table 3.13

Students' Interaction Obstructions

Option	Participants	Percentage
You are not talkative / shy	02	13.33%
The topics discussed in the classroom are not interesting	08	53.33%
The teacher does not motivate you	00	0%
You are afraid of making mistakes	05	33.34%
Total	15	100%

Through table 3.13, (53.33%) of students revealed that they avoid interaction with their teacher because they lack interest most of the time. Meanwhile, (33.34%) of students asserted that their feelings of making mistakes prevent them from interacting inside the classroom. However, only two students (13.33%) declared that their shyness prevents them from being interactive. From the gathered results, we concluded that teachers have to put into consideration the kind of topics, which attract their students' attention to make them more interactive. They also have to encourage students to share their answers without being afraid because making mistakes is a part of learning.

Item 10: Techniques adopted by the teacher to encourage students' interaction

As the content of this question suggests, it was designed to be answered by students. Each technique has particular characteristics; therefore, we wanted to investigate what techniques teacher use in their classes to encourage their students' interaction.

Table 3.14

Techniques Adopted by the Teacher to Encourage Students' Interaction

Option	Participants	Percentage
The questioning technique	6	40%
The scaffolding technique	6	40%
The collaborative learning technique	3	20%
Total	15	100%

Following a descending order, the questioning and the scaffolding techniques were mostly used by the teacher marking the same percentage (40%). Moreover, the collaborative learning technique was significantly ranked in the list of (20%). Through the students' opinions, the results summarised that the teacher is aware of these theoretical techniques since he integrated them into his classes. Such results provide promising future endeavours to improve the EFL classroom interaction.

Item 11: The teachers' correction of students' mistakes

In this question, students were asked to state the frequency of correcting their mistakes by their teacher.

Table 3.15

The Teachers' Correction of Students' Mistakes

Option	Participants	Percentage
Always	7	46.67%
Usually	5	33.33%
Sometimes	2	13.33%
Rarely	1	6.67%
Never	00	0%
Total	15	100%

As it is shown on the table, seven students (46.67%) indicated that they are always corrected by their teacher, while (33.33%) of participants declared that usually the teacher corrects their mistakes. However, a percentage of (13.33%) asserted that sometimes when the teacher corrects their errors and no one (0%) selected “never”. From these answers, it is clear that the teacher has a significant role in the classroom; and his role as corrector is a vital element in the learning process.

Item 12: The effect of negative feedback on students

The aim of this open-ended question is to know students’ reactions when their teacher provides them with negative feedback. They have provided various and valuable reactions.

Table 3.16

The Effect of Teacher’s Negative Feedback on Students

Option	Participants	Percentage
Be motivated	9	60%
Be unsure of their answers	3	20%
Refuse to speak	3	20%
Total	15	100%

The common shared reaction between most of the students (60%) is that they accepted teachers’ negative feedback and they become more motivated, they considered it as a challenge to improve their capacities. However, three students (20%) elucidated that they become unsure of their answers. Whereas the rest of the students who represent the percentage of (20%) stated that they would never speak again in the classroom, this may be because the teacher always interrupts them. To sum up, the majority of students provided positive attitudes when their teacher provides them with negative feedback; however, the rest of them did not accept this kind of feedback might be for psychological reasons such as anxiety and shyness.

Section Three: Perception of integrating the interactive whiteboard to enhance EFL classroom interaction

Item 13: Type of technologies provided by the secondary school of El-Kantara

The availability of technology enables teachers and students to adopt more their facilities in their teaching/learning experience. Hence, this question was designed to collect participants' opinions about the services provided by their secondary school.

Table 3.17

Type of Technologies Provided by the Secondary School of El-Kantara

Option	Participants	Percentage
Data show	15	100%
Tablets	00	0%
Computers	00	0%
Interactive whiteboard	00	0%
Total	15	100%

Data reported in Table 3.17 informed that only data shows are provided to learn/teach. It can be concluded that both teachers and students are unsatisfied. The future teaching pedagogies should cope with the digital evolutions for reaching a satisfactory educational level.

Item 14: Students' previous experience with the interactive whiteboard

From this item, we attempted to know if there are previous students' experiences with the IWB.

Table 3.18

Students' Previous Experience with the Interactive Whiteboard

Option	Participants	Percentage
Yes	2	13.33%
No	13	86.67%
Total	15	100%

As it is shown in table 3.18, (86.67%) respondents declared that they have never had a teacher that used the IWB. However, two participants (13.33%) reported that they have already used this tool; this can be at private schools. Overall, it can be said that the majority of participants are unfamiliar with the IWB since they have not used it before.

Item 15: Students' opinions about incorporating the IWB to enhance EFL classroom interaction

This question aimed at collecting how participants perceived the role of the IWB in improving EFL classroom interaction.

Table 3.19

Students' Opinions about Incorporating the IWB to Enhance EFL Classroom Interaction

Option	Participants	Percentage
Yes	13	86.67%
No	2	13.33%
Total	15	100%

The items in Table 3.19 were a collection of students' opinions. Thirteen students (86.67%) agreed that the IWB is beneficial for fostering classroom interaction quality. Whereas, only two students (13.33%) believed that integrating such a tool in learning does not have any positive effect on their interaction, maybe they view it as wasting precious time of learning. Consequently, the above results confirmed that most of the students are aware of how to develop EFL classroom interaction. According to their beliefs, they agreed on incorporating technology to foster classroom interaction, such as implementing the IWB.

Item 16: Students' agreement or disagreement with the following statements

16.1 By integrating the IWB in EFL classes, students will be motivated to acquire the expected knowledge

This question aimed to discover to what extent the IWB is a critical tool in motivating EFL students to acquire the language. Students were asked to indicate to what

extent they agree with the statement, which indicates that by integrating the IWB in EFL classes, students will be motivated to acquire the expected knowledge.

Table 3.20

Students' Views about the Effect of IWB on their Learning Motivation

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
Students will be motivated to acquire the expected knowledge	8	4	1	1	1	15
Percentage	53.33%	26.66%	6.67%	6.67%	6.67%	100%

To simplify the illustrated results in table 3.20, a considerable percentage (53.33%) have selected “strongly agree” to describe their total agreement about the provided statement because they need new tools that motivate them to learn; while (26.66%) is the percentage of students who responded with “agree” making the (79.99%) of positive responses. The rest of the students were against incorporating the IWB to motivate students, except for one participant (6.67%) who held the neutral position. Besides, it was agreed among students that by integrating the IWB, students would be motivated to learn. Hence changing the ways of teaching learning is highly recommended and should be based on what makes students motivated.

16.2 By integrating the IWB in EFL classes, students will be engaged in innovative activities that meet their learning needs

This question was stated to discover students' views concerning the impact of using the IWB on their engagement in different activities that meet their learning needs.

Table 3.21

The Impact of the IWB on Students' Engagement

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
students will be engaged in innovative activities that meet their learning needs	8	4	1	1	1	15
Percentage	53.33%	26.66%	6.67%	6.67%	6.67%	100%

The results of table 3.21 showed that a percentage of (53.33%) have selected “strongly agree” to describe their total agreement about the provided statement; however, (26.66%) is the percentage of students who responded with “agree” making the (79.99%) of positive responses. These kind of students are deeply motivated to participate in activities and compete with the other groups. The rest of the students (two students) were against the effect of the IWB in engaging students, except for one participant (6.67%) who held the neutral position. To conclude, the above rates unveil that the majority of first-year students are engaged when implementing the IWB during classroom instruction.

16.3 By integrating the IWB in EFL classes, students will be able to share their knowledge and ideas with their teacher and peers

This question is sought to elicit the average number of participants who thought that students would be able to share their knowledge and ideas with their teacher and peers by using the IWB.

Table 3.22

Students' Ability to Share their Knowledge through the Integration of the IWB

	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
students will be able to share their knowledge and ideas with their teacher and peers	10	3	00	01	01	15
Percentage	66.66%	20%	0%	6.67%	6.67%	100%

The rates displayed in table 3.22 unveiled that out of 15 respondents; ten students (66.66%) indicated that they strongly agreed about the statement. Besides, 20% revealed that they agree about students' ability in sharing their knowledge through the IWB tasks. Whilst only two students neglected the role of the IWB in developing their ability to share their knowledge. Therefore, we can conclude that the majority of first-year students confirmed the positive connection between the use of the IWB and the ability of students to share knowledge and ideas with their peers due to the different tasks that made them comfortable.

16.4 By integrating the IWB in EFL classes, students will be more cooperative and interactive

This statement aimed to collect students' perceptions about another advantage of the IWB. The statement states that by integrating the IWB in EFL classes, students will be more cooperative and interactive. They were requested to show their agreement or disagreement about the provided statement.

Table 3.23

Improving Students' Cooperation through the IWB

	Strongly Agree	Agree	neutral	Strongly Disagree	Disagree	Total
students will be more cooperative and interactive	10	3	00	01	01	15
Percentage	66.66%	20%	0%	6.67%	6.67%	100%

Table 3.23 below illustrates that (66.66%) of the students strongly believed that the use of the IWB promotes pair or group works which create cooperation between the students. Yet, only two students pointed that they disagreed with the statement. In other words, they highlighted that student could not be cooperative through the IWB; they thought that integrating such kind of technology in learning might create chaos instead of cooperation among students. Thus, most of the students (n=10) highly support creating cooperative learning by using the IWB.

Item 17: Challenges hindering the effectiveness of adopting the IWB to improve EFL classroom interaction

To incorporate our tool in EFL classes, one should think about the possible factors that may impede the IWB from being effective. Therefore, this item of the questionnaire attempted to explore students' opinions concerning this issue.

Table 3.24

Challenges Hindering the Effectiveness of Adopting the IWB to Improve EFL Classroom Interaction

Option	Participants	Percentage
Lack of trained teachers	4	26.66%
Lack of available Materials	01	6.67%
Too expensive	01	6.67%
Technical problems	00	0%
Lack of class time for the application of the IWB	00	0%
All of them	9	60%
Total	15	100%

Statistically speaking, (60%) of the students considered that all the provided challenges might hinder the effectiveness of the IWB. These challenges include lack of trained teachers, lack of available materials, IWB high price, technical problems of the IWB, and Lack of class time for the application of the IWB. Then, a percentage of (26.66%) refers to those who have selected "lack of trained teachers" as an obstacle. Besides, only (13.34%) of students asserted that the lack of available materials and the high price might hinder the IWB to be effective. From these results, "all of the challenges" choice got the high number of selection. Thus, we extracted that the application in EFL classes may face challenges. However, these obstacles are not very complex; they only need some changes starting from the availability of materials.

Item 18: Students' expectations about developing learning styles using the IWB

This item aimed to gather students' thoughts towards the learning styles that can be developed through the IWB.

Table 3.25

Students' Expectations about Developing Learning Styles Using the IWB

Option	Participants	Percentage
Auditory	6	40%
Visual	6	40%
Kinesthetic	3	20%
Total	15	100%

Through table 3.25, it is reported that “auditory learning” and “visual learning” got the same percentage, which equals (40%). That is to say, visual learners benefit from notes taken on the IWB in addition to diagramming and manipulating objects or symbols; whereas, the IWB facilitates presentations for auditory learners through videos or songs, which tackle the content of the lessons. Besides, three students (20%) selected kinesthetic as a learning style, which can be improved through the IWB. This kind of students can reinforce learning through exercises involving touch, movement and space on the IWB. According to these results, we may conclude that the IWB is a teaching helping tool to develop different learning styles.

Item 19: The benefits of the IWB services on developing students' ideas

This item was designed for students in which they were asked to rank their opinions about the contribution of the IWB services such as diagrams, charts, and webs on developing students' ideas during lessons.

Table 3.26

The Benefits of the IWB Services on Developing Students' Ideas

Option	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
Students can develop their ideas better during the lesson because of the diagrams, charts, and webs displayed via the IWB.	13	00	00	01	01	15
Percentage	86.66%	0%	0%	6.67%	6.67%	100%

As it is shown in table 3.26, the highest percentage (86.66%) strongly agreed that students might develop their ideas better during the lecture because of diagrams, charts, and webs displayed via the IWB. However, only two students provided their disagreement about the provided statement. Hence, we noticed that most of the respondents believed and supported the idea, which stated that students could develop their ideas better during the lesson because of the diagrams, charts, and webs displayed via the IWB.

Item 20: Students' expectations about learning English using the IWB

This item sought to gather respondents' agreement or disagreement about the expectation, which states that learning English through the IWB would be easier.

Table 3.27

Table 1 Students' Expectations about Learning English Using the IWB

Option	Participants	Percentage
Yes	14	93.33%
No	01	6.67%
Total	15	100%

As observed in Table 3.27, fourteen respondents (93.33%) supported that the IWB can be an effective tool that facilitates EFL students' learning. However, only one student (6.67%) who believed that the IWB is not be beneficial as a tool that makes learning English easier. Consequently, the IWB as a pedagogical tool is of great importance for facilitating EFL students' learning; so, its application will have positive results.

Further Suggestions

The purpose of this item was to provide students with a chance to share their opinions about the integration of the IWB in EFL classes. Five students participated in answering this question. They reported that the negative attitudes and beliefs about modern pedagogies should be decreased. Additionally, they proposed that learning would be

facilitated if this technological tool was provided in the Algerian educational institutions, which would pave the way for incorporating successful blended learning.

3.5.6 Discussion and Interpretation of the Findings

The analysis of students' findings provides different information and valuable responses that supported our hypothesis. Initially, from students' responses, we deduced that learning EFL at secondary school is somehow difficult; precisely, in the first year level due to the challenges students face. To mention some, the complexity of the new system at secondary school is considered as an obstacle, which prevents students from making balance between studying English and the other scientific subjects that require much effort. Additionally, according to students' result, the examinations content and the writing process are challenges that make learning English at secondary school difficult for them.

This researcher aimed at investigating students' perceptions about the integration of technology in education, specifically, the IWB as an efficient tool to augment EFL classroom interaction. Though low access to technology materials is provided, the use of technology at Omar Idriss Secondary School is not a new practice; it has been often used in English sessions. As noticed at Omar Idriss Secondary School, the teacher is already incorporating technology to facilitate and accelerate students' progression. A significant example includes using the computer and projector to present English lessons. Another instance includes posting tutorials in Google classroom to help students to catch up what they have missed in class or to provide opportunities to those who could not attend.

The second section of our questionnaire was about Classroom interaction. The results show that classroom interaction has positive effect on students' behaviours and attitudes towards the learning process. Through the analysis of the results, we find that most of the students asserted that classroom interaction increases their language knowledge, facilitates their vocabulary learning, and makes them effective communicators. It also enables them to decompose the teaching-learning structures and derive meaning from classroom events.

More importantly, when we asked respondents to select their preferred type of classroom interaction that can develop their interactions, most of them agreed on "student-

technology interaction". Thus, students showed their familiarity with the potential of technology that enables them to judge its effectiveness.

Moreover, the majority of our respondents claimed that their interaction is a result of their desire, and only a few students said that it is a result of their teachers' desire. These results can be justified through different factors that may motivate or hinder students from participating, such as shyness, interest in discussed topics, and the teacher's motivation. However, EFL students are always allowed to participate in tasks, which means that teacher is the only one who dominates the explanation of the lesson.

In the same path, when students were asked about the techniques used by their teacher to foster interaction inside the classroom, the questioning and the scaffolding techniques got the highest percentage of selection than the collaborative learning technique. Answers indicate that the questioning and the scaffolding techniques are more useful by teacher comparing to the other technique. The questioning technique is used in order to improve a whole range of communications skills. For example, students can gather better information and learn more, they can build stronger relationships, and help others to learn too. Besides, the scaffolding technique is used to give EFL students the opportunity and the necessary support to acquire language while meeting rigorous academic standards.

In this questionnaire, students were asked about their reactions when the teacher provided them with negative feedback. Most of the respondents stated that he always corrects their students' mistakes, while the others declared that their teacher usually corrects their mistakes. Overall, they all agreed that they feel motivated when they are provided with feedback because feedback is significant; hence, the teacher has to focus on the most repeated mistakes.

The third section of this questionnaire was related to the second variable of our research study, which is the IWB. Students have reported the lack of technological equipment provided by the university; according to them, only data shows are offered. Lack of materials causes a lack of digital learning practice in language classes. This is what students confirmed when they were asked about their experience concerning the incorporation of the IWB technology in their classes. It should be borne in mind that this

technological tool is considerably useful for language learners to develop their levels of interaction, and facilitate time and energy-consuming works for teachers.

The results show also that the use of IWB has a positive impact on classroom interaction. Therefore, the majority of students indicate their positive responses to the statements given in question 16. From the analysis of these statements, we find that almost the students asserted that through the integration of the IWB, students will be motivated to acquire the expected knowledge, engaged in innovative activities that meet their learning needs, able to share their knowledge and ideas with their teacher and peers, and more cooperative and interactive. To sum up, students confirmed their views by considering the IWB as a teaching tool that fosters EFL classroom interaction.

Lack of materials was not the only barrier that hinders the application of the IWB; participants reported that the problem had more to do with the technical problems, lack of trained teachers, and the IWB high price. Such challenges remain the most critical challenges that hinder the effectiveness of the IWBs.

Furthermore, respondents agreed upon the significant role of the IWB in developing classroom interaction; they insisted that IWB is a teaching helping tool that enhances different learning styles. Equally, they highlighted that through the IWB, they can develop their ideas better during the lesson because of the diagrams, charts, and webs displayed. In addition, they expected that applying the IWB contributes to making them active students by giving them the chance to present their thoughts and ideas as well as motivating them to achieve well. In other words, learning English would be easier for them.

3.6 Classroom Observation

For the sake of supporting the obtained results from the questionnaire, the researcher has carried out a non-participant classroom observation. Classroom observation is considered as one of the main methods that is used by the researcher in order to collect qualitative data. This data collection tool aims at investigating how the IWB is implemented into first-year secondary school classes to improve classroom interaction. For this reason, we believe that non-participant classroom observation can guarantee the

opportunity of being an eyewitness of how the IWB is implemented in secondary school classes and highlighting its effectiveness in enhancing EFL classroom interaction.

3.6.1 Aim of Classroom Observation

Our objective behind this classroom observation was to explore the effect of the IWB on both extent and nature of classroom interaction. For more details, this data collection tool aimed at investigating how the IWB was implemented into first-year secondary school classes. It also aimed to determine teacher and students' attitudes toward the IWB application; and explore the extent to which first-year students are engaged during IWB sessions. Additionally, this tool attempted to compare the effect of IWB sessions and the effect of ordinary sessions on students and teacher's engagement. The researcher conducted this observation with the same teacher, in which he provided sessions using and without using the IWB.

3.6.2 Classroom Observation Procedure

We have attended six sessions with the same group and the same teacher, in that; we have attended two sessions per week. In the first two sessions, the teacher did not use the IWB, while the other four sessions, he did. The classroom observation had been taken place in April 2020, with the first-year class at Omar Idriss Secondary School in El Kantara. It lasted three weeks in which we attended six sessions with the same group, headed by an English teacher. The duration of each of the six sessions was 45 minutes. Additionally, the group consisted of around 15 students due to exceptional circumstances.

Moreover, the researcher proposed the IWB as a tool for the teacher to adapt it in their classes. However, we have attended with that teacher without telling him about the objectives of our research to make him spontaneous. Additionally, the researcher did not declare anything to avoid prepared lessons, which aimed to maintain the credibility of the information that will be gathered during the observation. Furthermore, an audio recorder was settled in the best position to record the teacher and students' interactions, while the researcher sat at the back of the classroom to take back up notes on students' responses.

3.6.3 Description of the Classroom Observation Checklist

Our observation was conducted through using a checklist that includes a set of items under two sections. The first section contains ten items mainly about the classroom interaction. The second section is devoted to capturing the way the IWB is implemented throughout the sessions and the processes adopted by the teacher, in addition to the various behaviours and emotions the students display along with the session(s), and it contains nine items.

Besides, we have included some comments and remarks to add when asking the teacher about several details that can not be observed. The checklist is designed in a form of a table on which the observer ticks in the columns depending on the items, which represent different aspects, related to classroom interaction. As far as its format is concerned, it contains items on which the observer ticks based on whether they have never been observed, rarely observed, sometimes observed, usually observed or always have been observed. As far as the classroom observation checklist is concerned, it contains structured statements in addition to a part devoted to further remarks and comments.

3.6.4 Analysis and Interpretation of Classroom Observation

In order to reinforce our study, this classroom observation is designed to investigate how IWB is implemented into first-year secondary school classes determining teacher and students attitudes and exploring the extent to which first-year students are engaged during IWB sessions.

Section One: Classroom Interaction

Item1. The students are more interactive with their classmates and teacher

In the beginning, without using the IWB, many students seemed reluctant to participate and interact with their teacher and peers. Only a group of “excellent” students have sometimes answered the activity and asked some questions about what seems ambiguous for them.

At the next sessions, with the use of the IWB, we have the students’ interaction seemed to be always; they were participating and discussing more than in the first sessions.

The majority of them showed a considerable willingness to interact. This was observed through volunteering answers and contributing to discussions. Only a minority of pupils either felt shy to contribute in front of groups or were mentally uninvolved. Nevertheless, the teacher did his best to create an environment, which allows students of different learning styles to participate. To conclude, the large number of students who interacted throughout the IWB tasks were positively affected since they were trying in the last sessions to participate and interact with others.

Item2. The teacher speaks loudly and uses simple words

During the six sessions of the classroom observation, we noticed that the teacher has always spoken loudly and used simple words. The voice of the teacher enabled all the students to hear his explanation and instructions. Additionally, he used simple words that may affect the students' comprehension and their involvement with the lesson. Even when the teacher has used some complicated words, we have observed that he was followed these words with their meanings, explaining them by using simple definitions.

Item3. The students are motivated to participate in the discussion

Students' motivation and interest can be maintained by setting challenging and competitive tasks, as well as debatable discussions. In the session, in which the teacher taught grammar explicitly, classroom activities lacking in variety were generally monotonous for students. Additionally, students could simply complete the activity by merely referring back to the grammar rule already stated. Consequently, the activity was regarded as tedious for them, which diminished their degree of interest and motivation. On the other hand, during the classes in which IWB is implemented, tasks contained games that attracted the students' attention and maintained their enthusiasm. Besides, the students were always motivated to participate in the discussion and shared their answers. Furthermore, the teacher used such tasks as problem-solving tasks, which triggered the students' determination and invited their competitiveness.

Item4. The teacher encourages students to participate

Almost all students prefer the teacher who encourages them to participate, uses rewards (additional marks), and praises (good, excellent). We have noticed that the teacher

has always encouraged his students by using rewards and praises. The teacher was using certain words such as very good, excellent, yes, and please go ahead; in addition, he used the additional marks to encourage students to participate. In fact, the students seemed to be motivated and encouraged, they have always tried to participate in order to be thanked by their teacher or to get the additional marks.

Item5. The students ask questions on the meaning of topic-related words in English

During the first sessions (without using the IWB), asking questions on the meaning of topic-related words was rarely observed. This could be due to the lack of vocabularies, which may hinder them from formulating correct sentences to ask questions. Students focused more on peer and group tutoring. Therefore, asking for the teacher's clarification and further explanation occurred only in case when the whole group encountered difficulties. However, we have observed that, in IWB sessions, whenever students encountered difficulties in vocabularies meaning, they simply ask the teacher about their meanings. Through the IWB, students were motivated to gain information, discuss their ideas, and ask questions directly.

Item6. The teacher answers students' questions using repetitions and more explanations

In the sessions that we spent without using the IWB, we have noticed that the teacher has always answered his students' questions using repetition for those who did not hear the explanation in the first time. He also used more explanations to deliver information to his students. While in IWB lessons, the teacher's repetitions and explanations have rarely been observed because the instructions were clearly defined through the IWB. Consequently, most students fully grasped what was exactly required for them, without any ambiguity in the comprehension of the form of the instructions. Thus, the teacher did not receive a large number of questions, as well as he did not use more repetitions and explanations.

Item7. The students' interaction with the content of the lesson is increased

This item was designed to observe the students' amount of interaction with the content of the lesson. When the teacher performed the lessons without using the IWB, only

some of the students interacted with the content. Whereas, during the rest four sessions we have attended, we noticed that students interacted with the lessons presented. This interaction could be shown through their questions concerning the additional information about the content to reach a high amount of interaction.

Item8. The teacher corrects the students' mistakes

In the first sessions that we spent observing the teacher's rectification of students' mistakes, we noticed that the teacher has always corrected his students' mistakes. For instance, whenever students committed a mistake in conjugating a verb in a particular tense, the teacher immediately corrected his students' mistakes. On the contrary, in sessions implementing the IWB, the teacher rarely corrected his students' mistakes. To clarify, the teacher's superficial monitoring and exploitation of the learning materials (The IWB) have encouraged students to be responsible for their learning.

Item9. The teacher employs different techniques and strategies to improve classroom interaction

During the first observed sessions, we noticed that the teacher gave more importance to the questioning and scaffolding techniques. He always asked their students either questions or gave them tasks to answer using the provided basics. From the third session, we have noticed that the teacher added a new instructional technique among their students, which is collaborative learning. We remarked that the students' cooperation in either pair work or group work was worthy in providing the teacher with exact answers and positive performance. This reveals that through the IWB, the teacher used all types of techniques to improve his classroom interaction.

Item10. The students feel comfortable to participate

It was observed that the teacher provided a friendly and comfortable atmosphere for students to participate naturally. Moreover, he avoided any action that made students feel frustrated or ashamed to participate. More specifically, during the IWB classes, the teacher presented different activities for students into a large sensitive screen, which enabled the majority of students to be comfortable to share ideas and participate naturally.

Section Two: The Interactive Whiteboard

Item1. The teacher and students have already an experience with IWBs

From the first session of using the IWB, it was clear that the teacher and students have never used the IWB before; to demonstrate, they were curious about how to use this technological tool. Besides, students were excited to discover what is behind the whiteboard. Thus, the teacher used traditional ways with new technology in his classes instead of using new methods. This is due to the availability of the learning materials in secondary school.

Item2. The teacher knows how to use the IWB

Although, the IWB is easy to use, difficulties occur when the teacher has no previous experiences in teaching with high technology such as the IWB. We have noticed that the teacher did not know how to use this device, as well as he could not fix technical problems by himself since he is not trained before. Therefore, to overcome this difficulty, it is suggested that applied training from experts on using the IWBs should be provided to teachers.

Item3. The students are encouraged to leave their seats and use the IWB

In the first two sessions, without using the IWB, students were participating and answering the activity, but not all the times. Only a group of students were answering the task on the board, while the rest of the class were not involved at all. This could be due to the students' discouragement and shyness to share answers.

In Contrast, during the IWB tasks, we have observed that many students were competing to answer the task. The majority of them were showing a considerable willingness to leave their seats and use the electronic pen to write their answers. To conclude, the large number of students who participated in the tasks were encouraged and motivated by the IWB.

Item4. The teacher is confident enough in using IWB

Briefly, as it is mentioned before, the teacher is not trained in using the IWB. We can not say he was confident enough in using the IWB. It was observed that he conducted the lessons and tasks with the need for students' help to fix some technical issues because

his knowledge in using this technology is limited. Therefore, the teacher can acquire confidence in using this tool through training and experience.

Item5. The teacher can match the learning materials to the content of lesson and needs of different students.

We have observed that the teacher could match the learning materials to the content of lessons and the needs of different students. For instance, in one session, first-year students were asked to match sentences representing types of conditional, and later, they had to fill in the gaps using the correct form of verbs. In another session, students were given multiple-choice questions, and they were asked to choose the appropriate verb that suited the types of sentences. Additionally, the teacher used a game (Bingo) as a practice for the use of quantifiers. We can deduce that matching the IWB and the content of lessons are directly served to fulfil students' needs.

Item6. Some visuals are instrumental in explaining topic-related words

The innovative activities of the IWB permit students to learn together on the board, or they can watch and interpret a simulation of a mechanism. To illustrate, students matched words to their corresponding pictures while being coached by the teacher or collaborated with their peers. For instance, the teacher incorporated pictures and video clips to explain renewable energy sources. Through these facilities provided by the IWB, students were always able to understand topic-related words.

Item7. The teacher finds teaching easier when using the IWB

In all sessions that we spent observing the teacher's attitudes towards the IWB, it was observed that the teacher finds teaching easier when using this technological tool. He showed that IWB could be incorporated as an efficient tool to facilitate the teaching content and support classroom interaction. As the IWB is a tool for making conventional teaching patterns easier for the teacher, the observation showed that the teacher did not feel nervous or scared while using the IWB but felt more comfortable in the teaching process. The findings suggested that teacher had positive attitudes toward the IWB; he might be interested in teaching using technology to be creative in teaching.

Item8. The teacher is satisfied with the IWB integration in EFL classes

Through this item, we aimed to observe the teacher's satisfaction with the IWB implementation. In the first session of using the IWB, we noticed that the teacher's satisfaction has never been observed, while it has rarely observed in the second session, where the technical problems were reduced. Whereas, in the third and fourth session, the teacher was relatively satisfied with the IWB role in facilitating the teaching process in EFL classes. Overall, the teacher's satisfaction was observed by minimizing the technical problems of the IWB, as well as acknowledging the facilities that it provided.

Item9. Students' positive attitudes toward the use of IWB

We have proposed this item in order to observe the students' interaction after the employment of the IWB in their classroom. In the first session that we have attended using the IWB, we noticed a positive interaction of some students with their teacher, peers, content, and the IWB itself. Whereas in the rest of three sessions that we spent observing students' attitudes concerning the IWB, we observed that almost all students indicated their positive reactions when their teacher was using the IWB or applying some activities on the board. Concerning their performance when they were required to answer the tasks, almost all the students were able to provide answers about the task that they tackled, which means that the use of IWB improves their ability to interact. As results, the teacher can meet the lesson objectives with the students' needs by using different activities on the IWB while teaching English.

3.6.5 Discussion and Interpretation of the Findings

After we carried out our classroom observation, we started directly to analyzing its results. The results obtained helped in deducing that the integration of the IWB as a teaching tool in EFL classes plays an effective role in raising classroom interaction. In other words, the obtained data shed light on various classroom procedures when integrating the IWB and its impact on classroom interaction.

To begin, the employment of the IWB has a significant influence on students' interaction. As it was observed during the four sessions in which the IWB was used, the students were more likely to participate with the teacher. Students were also discussing and

sharing their ideas, asking some question without being afraid of making mistakes or being criticized by the teacher or their classmates. Therefore, the incorporation of the IWB plays a vital role in reducing such negative emotions or feelings of the students towards learning. We noticed that shyness, anxiety, stress, and tension were less observed; while they were observed in the ordinary sessions (without the IWB).

Moreover, during the explanation of the lesson, using different activities is an effective method that helped students get the main ideas from their teachers' instructions. For instance, we have observed that the teacher has used some visuals to explain some points in the lecture. The latter idea indicates the role of the IWB in explaining the meaning of topic-related words; it gave a clear idea about what the teacher was saying or wanted to say. Accordingly, we can deduce that the IWB tasks trigger students' engagement, grab their attention, and enable them to be interactive and motivated.

Moreover, the IWB is an effective tool in EFL classes since it is beneficial for the integral parts of the educational setting. For teachers, the use of the IWB helps them in facilitating the explanation of the lectures, keeping students' interest and engagement, and creating an appropriate and cooperative learning environment.

To conclude, through the analysis of classroom observation results, and by determining the differences existing between teaching using the IWB and the traditional way of teaching, it can be inferred that the IWB is a motivational strategy that helps EFL students to concentrate in their classes. Additionally, through the integration of IWB tasks, students can be considered active and engaged learners. Besides, it enables them to get rid of some negative attitudes such as the fear of making mistakes, being criticized, anxious or stressed in a way that makes them feel more relaxed and self-confident.

3.7 Summary of the Results

Since the main aim of this study is to investigate the role of the IWB as a tool to develop EFL classroom interaction, the researcher dealt with a couple of tools to gather feedback that feeds the study; a questionnaire administrated to first-year EFL students at secondary school and classroom observation.

In addition, through this study, we aimed to develop EFL classroom interaction by suggesting the use of the IWB. It also aimed to prepare students and their teacher as main parts of the teaching-learning process in terms of enhancing their interaction. Besides, the study attempted to know the role of the IWB from EFL students' perspectives. Moreover, it provided additional benefits of adopting this tool in teaching suggested by the researcher that can develop the student's attitudes toward learning.

On the one hand, the questionnaire findings showed that students insisted on the great impact of the IWB in teaching and learning English. In addition, students gave priority to the IWB, and they described it as one of the pillars for the successful improvement of EFL classroom interaction. Additionally, they proved that classroom interaction is low in EFL classes because of their lack of interest in the discussed topics. Thus, they raised the awareness of the IWB role; and they pointed that EFL classroom interaction should be developed to make students to be motivated and engaged in the learning process.

In the same vein, the conducted questionnaire showed that the IWB is one of the most effective tools that should be adopted; precisely, to develop EFL classroom interaction because it provides several facilities comparing to the traditional whiteboard. Due to researchers' positive attitudes towards the role of the IWB as a pedagogical tool to develop EFL classroom interaction, the questionnaire results proved that adopting this tool deserves to be applied in the Algerian educational institutions; especially, in EFL classes.

Moreover, the obtained results from the questionnaire presented that the use of the IWB and classroom interaction have a strong relationship; that makes the IWB enhances the quality of classroom interaction. Besides, the results proved that the appropriate use of the IWB that is matched to content contributes to facilitating the students' comprehension and interaction. Therefore, the use of IWB should be relevant to the subject matter to be more effective.

On the other hand, the classroom observation results agreed with the students' questionnaire results in some points; however, students' classroom observation revealed their high interest in the content that was presented within the IWB. The latter allows them

to express their ideas and thoughts as well as maximizes their chance of participation and interaction.

Likewise, the obtained results from this classroom observation proved the students' unfamiliarity with the IWB use as a tool that contributes to their learning process. This is due to the lack of available materials in the secondary school, lack of trained teachers, and other factors, which hinder the IWB from being applied. However, students agreed on the importance of the IWB. Through this tool, the students were more motivated to learn English and more excited to be a part of learning; especially, when the teacher integrated some games that promote collaboration.

Furthermore, the teacher was able to deliver the lesson simply, so that the students did not find difficulties in comprehending the content. Besides, almost all the students held positive attitudes toward the integration of humour, and it seemed as they agreed on the IWB usefulness in education. Additionally, the results pointed that the effects of the IWB were not only restricted on developing students' interaction; but it exceeds to give students the chance to develop their knowledge, share their ideas, and raise their motivation and interest toward the learning process.

Overall, both sides feedback was beneficial, effective, and positive, which contributed to the validity of the research hypothesis. More importantly, it showed that the suggested tool could be a useful adopted tool for teachers and students. Thus, the IWB helps to end students' passivity and improve interactivity in the classroom. Furthermore, the obtained results raised the awareness of the IWB role in the successful EFL teaching-learning process and proved its high recommendation in education.

3.8 Synthesis of the Findings

The obtained results from both tools lead to the progress of this synthesis. Both methods provided approximately similar results that help to answer the research questions and validate the hypothesis concerning the effect of the IWB as a tool on EFL classroom interaction.

The two methods confirmed the validity of the research hypotheses since EFL teacher and students at the secondary school of EL-Kantara provided a higher percentage

of interaction with the IWB; according to them, it provides opportunities for students to be more engaged. Moreover, it is viewed as a way of increasing students talk in the classroom and enabling students to work and communicate freely. However, it is viewed as a teaching helping tool that facilitates the teaching process. Equally, classroom observation and questionnaire's results confirmed the great contribution of the IWB in developing EFL classroom interaction as a crucial element for language learning. More importantly, the obtained feedback affirmed that the IWB as a pedagogical tool deserves to be adopted; yet, students claimed that this latter requires some conditions as materials availability, trained teachers to avoid the technical problems. Therefore, the data collected contributed to answering the research first hypothesis, which pointed to the contribution of the IWB to the development of EFL classroom interaction.

Accordingly, the second research hypothesis has been confirmed through the teacher and students' positive perceptions of incorporating the IWB in EFL classes. Furthermore, participants supported the idea that the IWB improves their interaction by facilitating the instructions provided by their teacher. Moreover, they strongly view that through this tool, different learning style can be developed due to the various presentations introduced on the board like the games, videos, and written texts. Preparing cooperative learners was considered a strong advantage of the IWB. They also agreed that the IWB can solve the problem of interaction between students and their teacher since contact between them can be increased by the virtual world.

To conclude, the study results answered all the research questions and achieved all the study aims. Furthermore, all research hypotheses have been confirmed; initially, students highlighted the great contribution of the IWB in the EFL teaching-learning process as a pillar of improving classroom interaction. In addition, it has been confirmed that EFL teacher and students have positive attitudes towards the adoption of the IWB as an instructional tool in enhancing EFL classroom interaction.

3.9 Limitation of the Study

In conducting any research, the researcher faced some challenges that obstructed the research progress. Initially, the unavailability of the IWBs was the main obstacle that affected our research progress, precisely, in finding schools that use these tools because

they were rare and expensive. For this reason, the researcher was obliged to look for other techniques to make the board interactive. As an alternative, the researcher used the Smooth Board technique, which allows the user to transform a flat-screen display (projected screen or flat panel) into an interactive whiteboard with just a Wii mote and IR Pen.

Additionally, various limitations can be noted in terms of the small size of this study. First, the Smooth Board technique was applied with only one group in which there were only approximately 15 students due to the pandemic circumstance. This number may not represent a wide population of first-year level EFL students; therefore, the findings can only suggest possible implications concerning IWB use.

Moreover, because of time constraints, the methodology of this study included only six observations in total for both the IWB and non-IWB sessions. Although the study has been affected by the aforementioned limitations, the researcher has collected feedback, which helped her to confirm the validity of her hypotheses.

3.10 Conclusions and Recommendations

Based on the conclusion derived from the research findings, the researcher proposes the following recommendations.

- Policy makers and stakeholders should perceive the integration of IWBs into classrooms as a must so that they can facilitate the work modifications requested by the teachers in public schools. First, they should install an IWB and projector in each classroom or at least in each floor of a public school so that teachers will not waste time moving students to the multimedia room in a different floor. Second, they should provide complete access to necessary resources for teachers so that they can implement an IWB lessons efficaciously. In addition, they should offer required funds to carry out sporadic training workshops for teachers on the effective integration of technology in classrooms. At the same time, administrators can also assist teachers in finding proper IWB materials and buying books that include suitable IWB activities and tasks.
- EFL teachers should be aware of the role of using the IWB as a teaching tool that enables them to enhance their classroom interaction that solves their students' problems to learn. The IWB is also an effective tool to create an enjoyable learning atmosphere for the

students since most of them prefer to use technology in their learning. It also helps teachers to teach in new teaching method; so employing some games or videos, for example, can make the lesson enjoyable without feeling bored, anxious or stressed.

- Regarding the quality of interaction and the tasks that should be employed, it is favourable to vary the IWB tasks from one session to another based on the topic of the lesson; in order not to make the students get bored from the overuse of particular tasks rather than the others. Moreover, it is better to increase the use of this tool since its main role is to keep students' interest and motivation to make them more involved in their classes, to raise their amount of comprehension and interaction. However, the effective employment of the IWB in teaching the target language should support the lesson content to meet its objectives.

- Concerning the IWB content-based, it is better to choose some visuals related to the content of the lesson. In this way, the teachers can keep their students' concentration and interest, maintaining their motivation; to participate and share their ideas to discuss them easily through an enjoyable learning environment.

- Furthermore, using the IWB is also an effective teaching tool that reforms the learners' self-confidence and self-esteem. Some of the learners' negative emotions or attitudes toward learning as anxiety, tension, boredom, and fear of making mistakes, can be at ease to be reduced. For that reason, the teacher should subscribe to the application of the IWB and be aware of its importance.

- Future research will be necessary and significant to analyze the teachers' teaching tools and preferences. This process can be achieved by examining students' needs because such practice will help researchers to suggest the best teaching tools that can create successful learning atmosphere and efficient tools to develop learning outcomes.

Conclusion

This chapter represented the fieldwork of the current study that sought to explore students' perceptions of using the IWB in EFL classes and reveal to which extent this tool can promote classroom interaction. To collect data, the researcher provided questionnaire and classroom observation to first-year students at Omar Idriss Secondary School. To analyse data, we adopted descriptive statistics. Therefore, the findings revealed that the teachers and students had positive perceptions of the IWB and acknowledged its importance to enhance the classroom interaction.

General conclusion

The present study aimed to shed light on developing EFL classroom interaction by suggesting the IWB as an instructional tool. Thus, this research attempted to answer all the research questions and validate the research hypotheses, which highlighted that if EFL teachers integrate the IWBs in their classes, classroom interaction will be improved.

The study comprises three chapters. The two initial chapters were devoted to the theoretical part of the study, whereas the third chapter focused on the study framework. Firstly, the first chapter devoted to highlighting all the basics of classroom interaction. To be precise, it dealt with an overview of classroom interaction (its meaning, aspects, types, techniques, and strategies). Moreover, it presented the importance of classroom interaction in EFL classes; furthermore, it shed light on how interaction can be promoted through IWB use.

Additionally, the second chapter dealt with the IWB. Initially, it provided the essential elements of the IWB and its position in ELT. Moreover, it focused on the significance of the IWB technology and the challenges that face teachers and students when integrating this tool in EFL classes.

The last chapter devoted to the study framework. Initially, this chapter dealt with the practical part of the study that presented a literature review about the research methodology (research approach, research design, population and sampling, and data collection methods). Then, it shifted to data analysis and interpretation, in addition to the discussion and summary of the study findings.

To achieve the study aim, the researcher dealt with a qualitative approach. To collect data, the researcher used two different data collection tools; a questionnaire, which has been administrated to first-year EFL students, and a classroom observation, which has been conducted with first-year classes. Both teacher and students were from the Secondary School of El-Kantara. The sample of the study included fifteen students and their teacher.

Accordingly, the obtained data from students' questionnaire and classroom observation proved that students and their teacher have positive attitudes towards the integration of the IWB as an instructional tool to develop EFL classroom interaction. In other words, both teacher and students believe that the more teacher uses the IWB the more their students will be motivated and interactive.

Overall, the main finding of this study is that IWB use influences classroom interaction dramatically. Besides, the study indicates great contributions of IWBs to classroom interaction; it may be concluded that an IWB is a critical factor enabling students to interact in the classroom. To benefit from the IWB in the classroom, teachers should be aware that technology alone does not bring effectiveness. However, adopting this tool requires certain conditions such as training, availability of sources, time, and considerable budget to purchase it.

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Appendices

Appendix One: Questionnaire for Secondary School Students of English

Dear students,

You are kindly requested to answer the present questionnaire that serves as data collection tool for a master degree in applied linguistics. Your answers will be very helpful for our research entitled “**An Investigation into the Effect of the Interactive Whiteboard on Classroom Interaction in English as Foreign Language Classes**”. Therefore, we would be so grateful if you provide us with precise, clear, and complete responses. Please tick (✓) the appropriate answer(s) and write full statement(s) whenever it is necessary. Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort, and collaboration

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Section One: General Information

Q1: Would you specify your gender please?

Male

Female

Q2: How did you find learning English at secondary school?

Easy

Difficult

Very difficult

Justify your answer please

.....
Q3: Do you think that using technology has great importance in learning English as a foreign language?

Yes

No

Q4: What kind of technologies does your teacher use in the classroom?

.....
.....

Section Two: Classroom Interaction

Q5: Interaction in EFL classes is important because:

	Strongly agree	Agree	Neutral	Strongly disagree	Disagree
• The process of learning a foreign language depends mainly on the concept of classroom interaction.					
• Classroom interaction helps students to increase their language knowledge					
• Classroom interaction facilitates vocabulary learning					
• Classroom interaction leads students to communicate effectively in classroom using the target language (English)					
• Through interaction, the learner can decompose the teaching-learning structures and derive meaning from classroom events					

Q6: Which type of classroom interaction do you prefer?

- Teacher-student interaction
- Student-student interaction
- Student-content interaction
- Student-technology interaction

Explain, please

.....
.....

Q7: How often does your teacher give you the opportunity to participate?

- Always Usually Sometimes Rarely Never

When?

.....
.....

Q8: When you engage in an interaction with your teacher, is it because:

- You want to interact
- The teacher wants you to interact

Q9: You do not interact with your teacher because:

- You are not talkative / shy
- The topics discussed in the classroom are not interesting
- The teacher does not motivate you
- You are afraid of making mistakes

If there are other reasons, please state them

.....
.....

Q10: Which of the following techniques does your teacher often use to encourage you to interact?

- The questioning technique
- The scaffolding technique (the way in which a teacher structures a learning task and provides directives and clues to guide the learner's participation in the learning task)
- The collaborative learning technique (It refers to a set of instructional activities, in which students work in groups)

Q11: How often does your teacher correct your mistakes?

- Always
- Usually
- Sometimes
- Rarely
- Never

Q12: How do you feel when your teacher provides you with negative feedback?

.....
.....

Section Three: The Interactive Whiteboard (IWB)

Q13: What kind of technologies are available in your secondary school?

- Data show and TV sets
- Tablets
- Computers
- Interactive whiteboards

Others:

Q14: Did you ever have any teacher who used the interactive whiteboard?

Yes

No

Q15: Do you think that using the IWB can be an effective teaching tool for developing classroom interaction?

Yes

No

Q16: Do you agree with the following statements: “by integrating the interactive whiteboard in EFL classes, students will be ...”

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
• Motivated to acquire the expected knowledge					
• Engaged in innovative activities that meet their learning needs					
• Able to share their knowledge and ideas with their teacher and peers					
• More cooperative and interactive					

Q17: What are the main challenges you think may hinder the effectiveness of integrating the interactive whiteboard inside EFL classes? You may choose more than one option.

Lack of trained teachers

Lack of available Materials

Too expensive

Technical problems

Lack of class time for the application of the IWB

All of them

If you would like to state other challenges rather than the ones mentioned above, please write them:

.....
.....

Q18: Do you expect that using the interactive whiteboard support different learning styles?

Yes

No

If yes, please select some of the learning styles that can be improved through the interactive whiteboard.

Auditory

Visual

Kinesthetic

Q19: Do you agree that students can develop their ideas better during the lesson because of the diagrams, charts, and webs displayed via the Interactive Whiteboard.

Strongly agree **1** **2** **3** **4** **5** Strongly disagree

Q20. Do you think that learning English as a foreign language would be easier with the interactive whiteboard?

Yes

No

If you would like to add any suggestions or comments concerning the integration of the interactive whiteboard, please feel free.

.....
.....
.....

Thank you for your cooperation

Appendix Two: Classroom Observation Checklist

Teacher:

Date:

Date:

Time:

Observer:

Branch:

N: Never

R: Rarely

S: Sometimes

U: Usually

A: Always

Observation	Items	N	R	S	U	A
Classroom Interaction	<ul style="list-style-type: none"> The students are more interactive with their classmates and teacher. 					
	<ul style="list-style-type: none"> The teacher speaks loudly and uses simple words. 					
	<ul style="list-style-type: none"> The students are motivated to participate in the discussion 					
	<ul style="list-style-type: none"> The teacher encourages students to participate. 					
	<ul style="list-style-type: none"> The students ask questions on the meaning of topic-related words in English. 					
	<ul style="list-style-type: none"> The teacher answers students' questions using repetitions and more explanations. 					
	<ul style="list-style-type: none"> The students' interaction with the content of the lesson is increased. 					
	<ul style="list-style-type: none"> The teacher corrects the students' mistakes. 					

	<ul style="list-style-type: none"> The teacher employs different techniques and instructional strategies to improve classroom interaction 					
	<ul style="list-style-type: none"> The Students feel comfortable to participate. 					
Interactive Whiteboard	<ul style="list-style-type: none"> The teacher and students have already an experience with IWBs. 					
	<ul style="list-style-type: none"> The teacher knows how to use IWB. 					
	<ul style="list-style-type: none"> The students are encouraged to leave their seats and use the IWB. 					
	<ul style="list-style-type: none"> The teacher is confident enough in using IWB. 					
	<ul style="list-style-type: none"> The teacher can match the learning materials to the content of lesson and needs of different students. 					
	<ul style="list-style-type: none"> Some visuals were instrumental in explaining topic-related words. 					
	<ul style="list-style-type: none"> The teacher finds teaching more easier when using IWB. 					
	<ul style="list-style-type: none"> The teacher is satisfied with the integration of IWB in EFL classes. 					

	<ul style="list-style-type: none">• Students' positive attitudes toward the use of IWB					
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Other comments:

المخلص

إن الهدف الأساسي من تعلم اللغة هو استخدامها في التواصل بأشكالها المنطوقة أو المكتوبة. يعد التفاعل في الصف مفتاحًا للوصول إلى هذا الهدف. ومع ذلك، لوحظ أن العديد من معلمي اللغة الإنجليزية كلغة أجنبية يظهرون العديد من أوجه القصور في تحسين التفاعل في الفصل الدراسي. إلى جانب ذلك، يعتبر نقص المواد والأدوات التعليمية بمثابة عوائق تمنع المعلمين من خلق بيئة تعليمية مناسبة بطريقة قد تؤثر على دافعية طلابهم وتفاعلهم أثناء المحاضرات. لذلك، افترضت هذه الدراسة أن السبورة التفاعلية يمكن أن تكون أداة فعالة تساهم في تعزيز التفاعل في الفصل الدراسي لتعليم اللغة الإنجليزية كلغة أجنبية. نظرًا لعدم اعتماد هذا النوع من التكنولوجيا على نطاق واسع لا سيما في فصول اللغة الأجنبية فقد سعينا لاستكشاف تصورات المعلمين والطلاب تجاه تطبيق هذه الأداة في طرق التدريس العملية في المستقبل. تهدف هذه الدراسة أيضًا إلى التحقق من دور السبورة التفاعلية كأداة تعليمية لتطوير تفاعل الفصل الدراسي لتعليم اللغة الإنجليزية. لاختبار صحة فرضياتنا، تم إجراء دراسة وصفية باستخدام نهج نوعي لجمع البيانات وتحليلها وتفسيرها. تم جمع هذه الأخيرة من خلال أداتين مختلفتين: استبيان تم توجيهه لخمسة عشر طالبًا في السنة الأولى من اللغة الإنجليزية بثانوية عمر إدريس بالقنطرة وملاحظة صفية أجريت مع نفس المستوى من نفس الثانوية. أظهر تحليل البيانات وتفسيرها أن الطلاب والمدرسين لديهم تصورات إيجابية عن أهمية السبورة التفاعلية في تطوير جودة تفاعل الفصل الدراسي للغة الإنجليزية كلغة أجنبية. ومنه فإن النتائج المتحصل عليها قد أثبتت صحة فرضيتنا المقترحة لأن النتائج كانت لصالح فرضيات البحث. لذلك، يُنصح المعلمين والطلاب والموظفين في مدرسة القنطرة الثانوية بدمج تقنية السبورة التفاعلية في المهام التربوية المستقبلية.