

Computer assisted language learning/Applied linguistics in action  
*Using an Interactive Whiteboard to Enhance Language Teaching in  
Higher Education: a Libyan EFL Teacher's Perspective*

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**Abstract**

Although considerable research related to the use and benefits of interactive whiteboards (IWBs) in teaching and learning is available (Smart Technologies Inc, 2006), there are few empirical studies that consider second language acquisition. Moreover, there is disagreement about the benefit of IWB use for language teaching. For example, Cutrim-Schmid (2008) discussed some of the benefits and problems of a multi media oriented approach in the IWB-based language classroom. However, Claypole (2010) explained that the IWB is far from indispensable for language teaching, since it is entirely dependent for its success on other factors such as the software, the lesson content, and preparation and planning. Therefore, the purpose of this research was to understand the use of IWBs, their role and problems in English language teaching. Technology is a new initiative in Libyan education (Hamdy, 2007) and requires deep understanding from different perspectives.

The data was gathered in two language centres at the two Libyan public Universities. It was conducted using an interruptive epistemology

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(Cohen, et al 2007) and grounded theory methodology (Denscombe, 2007). Qualitative research instruments were developed, namely classroom observations and semi-structured interviews with teachers. Emergent findings indicate that the use of IWBs is seen as an integral tool of lesson presentation, linguistic development and supports engagement in EFL teaching and learning. The teachers reported that it facilitates the use of authentic materials, saves time, and improves students' outcomes despite identified technical problems.

Key words: interactive whiteboards (IWBs), language teaching, (EFL) English as Foreign Language teachers, higher education, Libya

### **Introduction and Context**

These days, all the functions of the earliest technology such as recorder, video, visual aids have been merged on computers via the IWB which is used in educational settings. The interactive whiteboard allows the teacher to incorporate technology into instruction, rather than trying to arrange a whole class of students around one or two computers (Martin, 2009: 504) and IWBs are increasingly used around the globe including in developing countries such as Libya. In order to develop a better understanding of teaching and learning processes in classrooms where they are used, more research is needed to understand and conceptualize this technology in specific contexts (Coyle et al, 2010). This particular research aimed to investigate the perspective of Libyan EFL teachers, since teachers are considered the key to effective use of technology in the educational system (Zhao, et al 2001). Technology is a new development in Libyan education (Hamdy, 2007) and requires

deeper understanding. The use of ICT in language centres, at Libyan universities is the first project involving cooperation between the British Council and the Ministry of Higher Education in Libya. The project attempts to encourage widespread ICT use in all fields of Libyan higher education (Ministry of Libyan Education, 2008). This paper provides an initial analysis of the various uses of the IWB and its problems.

#### **Literature review and theoretical framework:**

The literature review has three main sections, firstly an interactive whiteboard and its benefits in language teaching, secondly studies on the use of IWB in the language classroom and thirdly the problems associated with ICT in learning, particularly the IWB.

#### **1. What is an Interactive whiteboard and how can it benefit language teaching?**

McGhee and Kozma (2001:3) argue that by providing new tools and changing curricula and teaching methods, new technology is effecting change from a teacher-dominated, behaviourist approach, to an increasingly student-centred social-constructivist approach. In this regard, the IWB, a particular technology which emerged in the last decade of the 20<sup>th</sup> century in education settings is defined by Coyle, et al (2010:614) as,

“A large, touch sensitive board that is typically mounted on a wall and connected simultaneously to both a computer and a digital projector. Any software or files that are available on the computer can be accessed by tapping the board manually or with a stylus. The projector displays the computer screen onto the board’s surface, enabling teachers and

pupils to work with the contents by writing or drawing on the board, by moving objects around or simply touching the board to change screens”.

Many studies consider the IWB as a good learning tool (Smith, et al 2005) and the teaching and learning of a foreign language is no exception. Cave (2006:93) identifies the IWB as a very versatile resource which can be used to enhance language teaching in numerous ways. “In the language classroom, the IWB opens up a range of possibilities that can have important benefits for both teachers and learners. The IWB enables teachers to maximize the time they spend on planning and developing resources, since lessons and materials can be saved on the computer and reused again and again”(Coyle, et al 2010:615). They also argue that multimedia technology enables rapid access to materials and prepared lessons from different sources. Teachers can move between visual, oral input and language practice quickly and easily and can obtain content based interactive software with electronic texts and games.

Smith, et al (2005:96) indicate, “the most widely claimed advantage of IWBs is they motivate pupils because lessons are more enjoyable and interesting resulting in improved attention and behaviour” which concurs with research in USA, UK and Australia testifies to the positive effect on student engagement, motivation, the accommodation of a variety of learning styles and the capacity to enhance student understanding and review processes (Lee and Boyle 2003; Bush et al 2004; Tate, 2002; Cooper& Brna, 2003).

## **2. Studies on the use of the IWB in language classrooms**

Research on how IWBs actually contribute to teaching and learning processes is still very limited and no studies as yet have focused on their impact in the field of language teaching and learning (Coyle, et al, 2010:615). Researchers have conducted few empirical and practical studies on the use of IWB in foreign language teaching, although there are many theoretical justifications. For example, Gerard and Widener (1999) describe and analyse the possible benefits of the IWB in foreign language classrooms. For teaching, he explained that they support interaction and conversation with students as the teacher can face and interact with the class and can concentrate on student learning instead of technology. The IWB facilitates whole class discussion around the board and the teacher can focus on language production instead of technical issues. Vocabulary can be reinforced by underlining, highlighting or circling. In addition the IWB can present new linguistic and cultural elements or authentic materials, with a facility to overwrite, underline, highlight or circle the elements that the teacher wants to emphasize. Vocabulary introduced in the classroom can be tracked to promote its reinforcement.

As for facilitating learning, Gerard and Widener (1999) indicate three types, the first being oral skills, explaining that the IWB brings people together and encourages communication. Both pictures and text are shown easily and immediately with the touch of a finger. Secondly, activities such as over-writing support the cognitive process and allow the correction of a paper by the whole class by students or teachers, which improves language skills and increases awareness of linguistic

elements. Thirdly, they discuss features which support student motivation and emulation, for example the touch sensitivity of the multi-sensory nature of the board which creates excitement. They conclude that the IWB is an innovative and powerful support for language acquisition which allows use of the features of computers without breaking classroom communication and they may enhance new kinds of learning processes. Additionally, the IWB brings interactive features into classrooms avoiding the cost of a computer for every student and the different media formats both motivate students and make them feel more secure in the language -learning environment, providing new opportunities for success in the target language (Hull, 2007).

Orr (2008) argues that IWBs add a "wow" factor to lessons as learners appreciate technology, enabling productive whole class teaching by providing a visually engaging presentation tool which supports visual, auditory and kinaesthetic learning. The boards support interactivity either from student's seats or at the board and enable the showcasing of learners' presentations. Teachers can prepare multiple electronic flipchart pages in advance and add text or drawings to the pages according to how the learners respond and revise the lesson at any point using a vast array of text type, colour, symbols, pictures, hyperlinks to sound files, video clips and internet pages, any of which can be printed off. High quality computer graphics can support the visualisation of difficult concepts and support the retention of information.

Regarding empirical studies, Coyle, et al (2010) found that IWBs make a successful impact on the quality of classroom interaction. They added that interactive software focuses students' attention on the lesson content, allowing them to visualize the processes involved in solving on screen tasks and making their errors more easily identifiable and promoting the sharing of knowledge through listening and talking. In a second language learning context, the potential for supporting comprehension and prompting output is even more significant and they suggest that teacher education should focus on developing classroom interactional competence as well as technological skills.

Cutrim-Schmid (2004) investigated the use of the IWB for the teaching of English for academic purpose (EAP) and in a pre-sessional course for second language learners, in which both teachers and students saw the IWB as an important tool which engages students, makes learning active and develops the learners' autonomy. In particular, she suggested that the IWB has the potential to extend learning /teaching possibilities both at the whole –class and individual learning levels.

Gray et al (2005) discovered that language teachers' views largely reflected the recent literature, suggesting that the IWB can greatly enhance teaching by supporting classroom management, pace and variety and the drawing of attention to grammatical features and patterns having a positive effect on memorisation skills and writing development. The study significantly emphasised the need for confidence with both the technology and language teaching, increased preparation time, possible reliance on a 'tell and show' approach and the need to

incorporate a variety of learning modes and suitable levels of material. The board was often used in ‘survival’ mode, with its potential gradually being realised.

### **3. The problems of ICT particularly the IWB**

Barriers to ICT use differ from one context to another although some may be similar. Since ICT use was only initiated in Libya in 2005(hamdy, 2007), the barriers here may be different to those faced by teachers in other countries. In general:

“ there is little evidence that looks at barriers which exist in specific areas, such as in specific phases of education, or in specific subject areas. In order to tackle the barriers to ICT use, it may be helpful to focus on these barriers that particularly affect practitioners in specific roles.” (Becta, 2004:23).

Consequently, there is a need to investigate the issues specifically affecting teachers in the Libyan higher education context, particularly EFL teachers who have been the first to experiment with the IWB in classrooms. Many studies indicate the types of barriers which EFL teachers experience while incorporating IWBs. These include technical difficulties (Schut, 2007), lighting/shading issues making the board hard to read (Beeland, 2002), recalibrating IWBs may disrupt lessons and a lack of technical support (Hall and Higgins, 2005), lack of teachers’ confidence and competence (Hall and Higgins, Ibid, Glover and Miller, 2001), the need for special training (Hall and Higgins, Ibid. Moss et al, 2007).

Therefore, technicians and training for language teachers are needed in these language centres and Coyle, et al, (2010:615) argue that training is essential, both to exploit the full potential of the board effectively but also to be able to respond promptly when difficulties occur.

### **Methodology and data resources**

An interpretivist philosophy underpins this study because “the interpretive paradigms strive to understand and interpret the world in terms of its actors” (Cohen et al., 2007:26). In order to meet the objectives of the study and interpret the participants’ responses, a qualitative approach has been employed utilising a grounded theory approach (Strauss & Corbin 2008) to the analysis. Grounded theory (Bryman, 2008), is an approach used to generate theories.

“The purpose of interviewing is to find out what is in and on someone else’s mind. We interview people to find out from them those things we cannot directly observe” (Patton, 1990:278). However, observation offers a researcher the chance to gather ‘live’ data from natural situations (Cohen et al., 2007). The initial data was collected via five-classroom observations (spanning about 15 hours in total), and this was followed by five semi-structured interviews with EFL teachers (spanning about 12 hours in total). The sample size is small due to the limited timescale of the study and data collection tools. The participants in this study are Libyan EFL teachers based in two language centres at two different Libyan public Universities, which will be referred to as A and B. This selection is based on two types of non-probability sampling (purposive & theoretical sampling) because the research process is one of

discovery rather than the testing of a hypothesis (Denscombe, 2007). The researcher used purposive sampling and selected Libyan teachers who are newer to the use of ICT rather than English teachers in Libya. Theoretical sampling was subsequently used as one of the principles of grounded theory (Cohen, et al 2007). The researcher informed the participants that all data is confidential and will not to be revealed to anyone (Hess & leavy 2010), therefore pseudonyms have been used.

The results merge data from both interviews and classroom observations. I have edited errors in the interview quotations to make them clear and comprehensible. I used ( ) to denote where grammar corrections and explanation were made. I used also ... shape to indicate the deletion of unnecessary words and to separate quotations from the same reference.

The main research questions for this study were:

How do EFL teachers use IWBs in their teaching, and why do they use them?

What are the problems that teachers face while using IWBs?

### **Results**

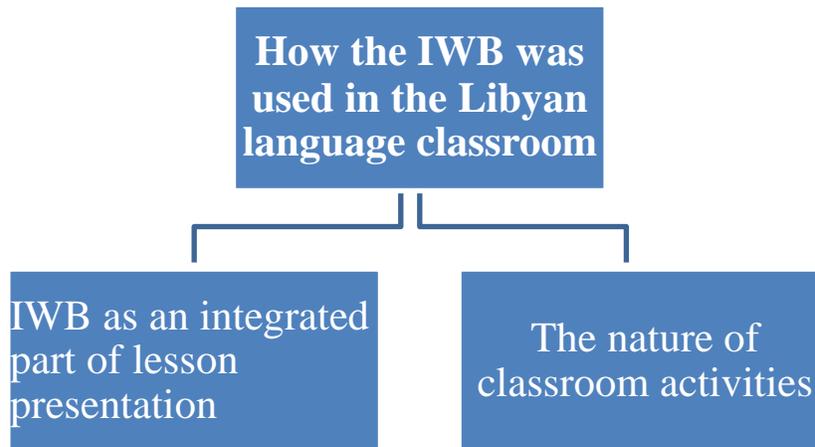
A key overall finding is that interactive whiteboards play an important role in teaching and learning English as a foreign language. Several key concepts have emerged from both data sources related to this paper's purpose:

- How the IWB was used in the Libyan language classroom.
- The reasons for using the IWB in language teaching
- The problems the teachers face while using IWB

The findings from each of these areas are presented in more details, with a few typical quotations given in each section.

### **1-How the IWB was used in the Libyan language classroom**

Figure 1: How the IWB was



All classrooms were provided with modern facilities such as air conditioning, an interactive whiteboard, a computer, a projector, a whiteboard, markers, and electronic markers. Based on classroom observation, the teachers and the students have a cutting edge course book for elementary levels (Cambridge University Press) and a face to face course book for intermediate and advanced levels (Cambridge University Press). All teachers used an interactive whiteboard connected to a computer and a projector during class every day. There was little use of the normal whiteboard because the teachers used the interactive whiteboard for all pedagogical activities. The language software they

used in lessons provided multiple functions. The teachers claimed that it is very difficult to teach without technological facilities. Asked about when they use it, for example,

*“Every day, and every day.” (Hiba)*

#### **A- IWB as integrated part of lesson presentation**

Interactive whiteboards were used to present language lessons which contained listening, speaking, writing and reading comprehension activities.

*“I always need to use (the IWB) to present my lesson” (Hala)*

*“The lesson was presented by using IWB which is connected to computer. She opened a blanket page on IWB and wrote the lesson content the vocabulary/how much/many/some/any/there is/there is”.*  
*(Hiba, observation)*

The IWB simplifies the language lessons and opens the discussion which is necessary in learning a foreign language. All the teachers use the IWB as a tool to explain and clarify and present language instructions and examples. They use an IWB as a visual support to the lesson and as an integral tool for linguistic development. There was interactivity, learner involvement and discussion. This was explained during interviews and observed in classrooms. The IWB was integrated as a main tool in presenting language lessons and its various activities as the following quotation indicate:

*“For IWB, interactive whiteboard, you know, okay. To simplify, to discuss, the examples, okay, to simplify the information to the students,*

*to the learners. Okay, illustrate, first we can take the lesson, parts of lesson, and variety. The lesson will be (on) IWB to support the students with the information, to simplify the information to them.”(Ali)*

Additionally, all the teachers use language software which is attached to the course book in the form of a CD which varies for each level, as described above, with interactive and electronic texts and games, specifically designed for teaching English as a foreign language levels. The teachers relied on the software more than other materials because the IWB attracts the attention of learners. The teachers and the students did not use the course book itself very much during classes. The presentation of the electronic course book helped the teacher to play the listening and other language activities very quickly. The IWB was visible for all the students.

Software which contains course books and extra activities plays an important role in teaching and learning English for all levels; beginner, intermediate and advanced. Some of the comments given in relation to the software use in the language classroom were as follows:

*“I use the book itself in the IWB...I use the whiteboard and IWB to explain the grammar and I use the listening comprehension, through the... software of the book.” (Hiba)*

In addition, the teachers used CDs and flash memories to display videos and authentic materials. These materials were obtained from the language centre library and the Internet.

*The teacher wrote some new vocabulary on IWB. Then he inserted the CD to show some authentic activities. ‘Look at the pictures and*

*guess the place of the people'." (Nori, observation)*

In general, the teachers use the e course book and extra activities more than text course book use. Therefore, based on observation and interview data, all the teachers prefer the IWB to the normal white board

*"IWB. Yes, IWB. For the IWB, I use it to write instead of the blackboard or the boards*

*and sometimes to show the CD-ROM, which is attached to the students book" (Nori)*

*The teacher did not bring course book because the e book was shown on IWB {homes and shops; renting a flat vocabulary. (Hiba, observation)*

#### **B- The nature of classroom activities:**

The EFL teachers use a computer, IWB, CDs and the Internet resources and visual aids, which help them in their teaching of language skills and exploring the target culture. The installation of IWBs was accompanied by a firm emphasis on language specific pedagogy by the administration of these language centres. The interview and observation data reveals contradictions in the teachers' perceptions and their actual use of ICT in the classroom, particularly the IWB.

For example, some teachers reported that they use ICT to teach **all** language skills.

*"I am trying to cover all the skills."(Nada)*

While in contrast, other teachers reported that they only use ICT to teach some language skills.

*“I think there is nothing related to speaking and the teaching, by using ICT”.* (Hiba)

However, in the observations, the EFL teachers used ICT both directly and indirectly to teach all the language skills but were not aware of this. Below, is an example which proved how teachers use ICT for teaching all language skills but they are seemingly unaware of this. The teacher in the interview above claimed that she did not use ICT for teaching ‘speaking’. However, she indirectly used ICT to teach phrases and vocabulary for speaking during classroom observation

*“At (10:15) she pressed the icon on the IWB to move to new page (listen and fill in the gaps). The teacher explained how to use ‘how much’ and ‘how many’ in conversation. Then she accessed a listening activity and the students filled in the missing words. Then she accessed the answers (giving immediate electronic feedback). She continued to explain the use of phrases such as ‘how much’, ‘can I have’”.* (Hiba, observation)

As a result of this contradiction, it is necessary to clarify how exactly the teachers use the IWB in teaching the different language skills, i.e. writing, speaking, listening and reading.

For writing, some teachers use the IWB to clarify certain examples and some brainstorm on the IWB. Learners sometimes describe pictures and events shown on the IWB to collect vocabulary and ideas about a topic before commencing writing. However, other teachers use it in indirect ways unconsciously, such as in exercises practising the order of words and sentences.

In relation to listening and speaking skills, the IWB supported listening skills more easily than other skills because it was not necessary for teachers to bring a CD recorder to the lesson or move the class to the computer lab. The teachers simply activate the listening icon on the IWB when they reach those activities in the course book. This method is different from traditional methods which take more time to play native language conversation on CDs or cassette players. IWBs therefore, save teachers' time. The IWB helps the learners to focus on pronunciation and intonation more, by listening, watching and replaying authentic videos while simultaneously explaining the common phrases. The teacher can easily replay any ambiguous pronunciation of words or anything related to listening skills. Every teacher indicated the importance of ICT in teaching listening skills. To encourage speaking skills however, it was observed that some teachers write examples and show speaking activities on the IWB. Subsequently, students practice what they have listened and learned in conversations.

For reading comprehension, ICT plays an active role in clarifying ambiguous and new vocabulary. In spite of some teachers reporting that they do not use ICT for teaching reading skills, lesson observations showed the IWB facilitates the understanding of vocabulary by showing many examples and pictures related to reading comprehension. The tasks incorporated both visual and auditory effects to guide the learner through activities. This is an example regarding teaching language skills.

*” He used the IWB to write some examples from the last lesson. ‘I went to Tripoli but I did not enjoy it’. The teacher told the students to*

*watch a video and select the correct answer. 'Real life-buying a train tickets' in page (96) (Cutting Edge \_starter book). The teacher played a video on the IWB. The students were listening and watching the video. After that the teacher played the video again to allow students to be sure about their answers. Then all the students completed the exercise (video). (Jobril, observation)*

Some teachers also model the use of an e-dictionary on the IWB which contained visual aids and an explanation of the meaning of words.

*"The teacher opened the electronic Cambridge dictionary on the IWB; the dictionary was stored on the computer. The teacher showed the kinds of clothes on the IWB" (Jobril, observation)*

*"I have electronic dictionary which is downloaded on the computer. So maybe sometimes I use it to explain (ambiguous Vocabulary)". (Nori)*

In addition, the teachers use the IWB to explore language structures, examples and exercises related to grammar. The immediate electronic feedback given for grammar exercises helps students to understand them and motivates students to continue with the class. For example,

*"I think. For grammar, because I use the IWB to explain the grammar to students, sometimes I put some sentences and they try to discover the difference between, for example, present simple and present continuous as well, something like that".(Nori)*

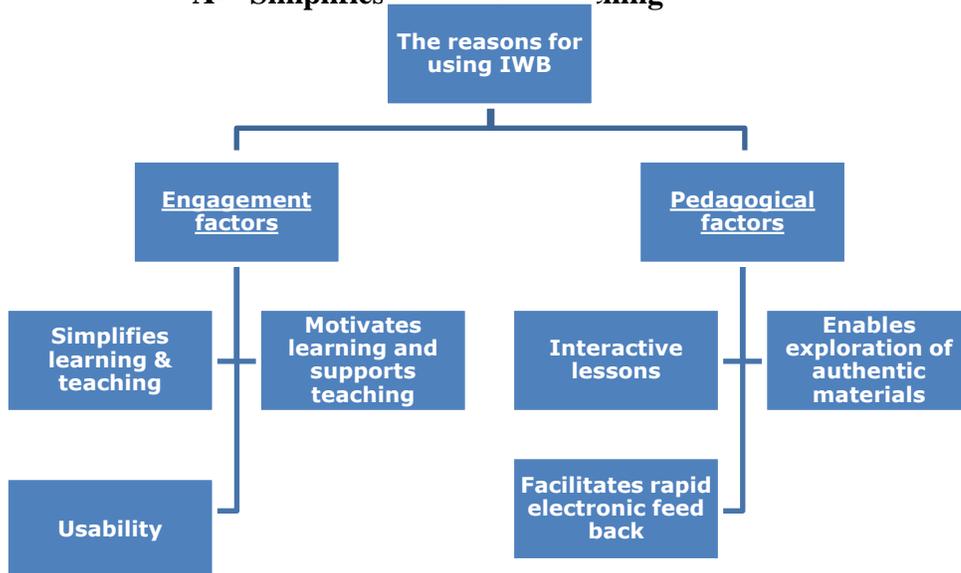
It is clear that the IWB was used to develop language concepts and can be used to enhance all language skills and its linguistic perspectives and help to develop the language learners 'competence and performance'.

## 2-The reasons for using IWB in language classroom

Figure 2: The reasons for using IWB

### Engagement factors:

#### A- Simplifies learning & teaching



The benefits of ICT in education have been emphasized and debated for long time. More recently IWBs have contributed considerably to language learning and teaching. It helps to learn a language e.g. listening, speaking, writing and reading skills and also to learn about language i.e. the structure of language.

*“I mean, I use the ICT inside the classroom in order to help them (learners) to use the language and to learn the language in an appropriate way and in a very accuracy way.” (Zainab)*

An IWB helps teachers and learners to review the previous lessons very rapidly because all the exercises and the instruction of previous lessons which were explained through IWB are stored on the computer. As we know repetition and imitation is one of the techniques in learning language theories. Three teachers commented that the use of the IWB supported them in encouraging pupils to practice the language and easily recycle the examples and activities to prompt memory. This is an example.

*“I use it to help student”... Save time and ... it saves the information that we can reuse in the classroom...So in this case they can learn, ah, English easily, pronunciation, they can listen, (Hiba).*

So the IWB particularly and ICT generally seems to make learning a foreign language easier than traditional ways. The ‘traditional’ ways refer to the previous use of chalkboard, recorder and video which as separate devices and cannot offer multiple functions through one medium and are time-consuming.

*” (students) understand more easily than the traditional ways”.*  
*(Nori)*

Many teachers reported that the IWB allows lessons to be more active and that students concentrate more in the lessons. All the teachers consider ICT use makes teaching easier and the IWB is a good visual aid. It saves time, reduces the effort required for teaching absorbs

learners' attention and increases their interest. The teachers generally considered ICT was a good tool for lesson presentation. Lesson observations showed that the teachers and students focussed on the IWB when it was showing the content of the course book. This is an example from the interview data.

*“ICT enables you to concentrate on all the skills of language. You can concentrate on listening more than usual and also I think the speaking also. You can give them (learners) a chance. When they (learners) are listening, they have a chance to develop their speaking”.*  
(Nori)

#### **B- Motivates learning and supports teaching**

The audio and visual facilities of the IWB are used by teachers to motivate learners. Watching and listening seems to engage the attention of learners and helps them to acquire language skills. All students appear to be highly motivated in a virtuous circle of increased pupil attention and teacher enjoyment. The IWB also engages the learners in all exercises and engages the communication and practice language inside the classroom. Rather than just sitting back and being lectured to, learners are able to take more an active role in their learning. All teachers refer to how the IWB supports learning. These are some examples.

*“They (learners) are very happy. I can see the smile ... on their faces when I (teach) the lesson.”(Nada)*

*“The students were engaged in listening and watching. The teacher*

*wrote on IWB other common phrases such as 'see you soon / later', 'Have a nice meal/evening/time'. 'Good luck with your car/job/school'. Then she asked two students to stand in front of IWB. The teacher explained the situation and the students showed the correct phrase to use IWB. The teacher used the same technique with all the students."* (Zainab, observation)

The use of ICT seems to gain the students' attention and therefore plays an important role in motivating them. Motivation is the basis of a successful learning and teaching process (Dornyel, 2003). Sometimes, when students listen to native speakers without watching a video, it is a little difficult for them to acquire the language structure. However, when students listen and watch at the same time it is easier for them to acquire the language because this action engages their minds and they make the link between what they are listening to and what they are watching. An IWB provides learners with the ability to revise and repeat the video or listening activities many times. This action improves their language skills and helps them to avoid making mistakes and errors in the language.

*"Sometimes if you let your students watch a video they will get it quickly."*(Jobril)

Many Four teachers out of five emphasized the usefulness of ICT in teaching English as a foreign language. They reported that ICT use is a good way to teach and traditional ways of teaching (chalkboard, teacher centred approach, grammar translation method) are more difficult. ICT meets all learners' and teachers' needs in an EFL lessons. The teachers

believed the rich outcomes achieved by EFL learners through the implementation of ICT in language education were very clear.

*“ After I use the ICT in my classes I can’t imagine that there is an English lesson without ICT”. (Nada)*

Some teachers indicated the role of ICT in achieving pedagogical goals, such as practicing language, providing immediate feedback, and improving all language skills, vocabulary and grammar. Others argued that its role could go beyond language teaching and should be increased more generally in Libyan education.

*“I think using ICT in teaching English language is a pretty good thing and I hope that each department, they can use it, okay, they can use the ICT and to teach, I mean, to teach the other trainees and to teach the other teachers how to use the ICT inside the classroom in order to improve their teaching practice.”(Zainab)*

### **C- Usability**

Another reason which encourages teachers to use IWB in language teaching is the ease of use of the IWB as well as the multiple functions of it, such as visual and audio aids, ability to draw on it, write over objects, and reuse activities. The features of the IWB such as drop and drag, or moving between multiple screens during lesson time make pedagogy interactive (Moss, et al 2007). This ease of use of many features encourages language teachers to use it. In other words, the early intensity of use helps teachers to overcome difficulties. The touch sensitive screen means the user simply presses the board’s surface to

open and close files, operate software and explore texts. The teacher and students can write digitally and manually and manipulate its surface with their fingers or using a magnetic pen on the board's surface. Even without a training course the teacher can use it especially with practice inside language classroom. But to maximise the benefits of working with IWBs, teachers could be encouraged to work at the enhanced interactive level (Miller, et al 2005). Appropriate continuing professional development should enable them to reach this stage as quickly as possible. The following comments emphasize ease of use, particularly with practice.

*“I want to use it because it's easy, easier than using the blackboard or the markers. .”(Nori)*

*“Yes. Firstly you need, we can say you need more and more practice to be, we can say, IWB to be easy to use. You need practice. I remember, when I came here, I found it difficult to use. But now it's easy to use.”(Ali)*

**Pedagogical factors:**

**A. Interactive lessons:** During the classroom observations, the lessons were found to be very interactive. The teachers explained the language rules and ambiguous words. The students watched a video about the English environment and listened to native speakers' conversations. Such interactive lessons improve the learning abilities and motivate learners to continue acquiring more knowledge. Interactive lessons encourage learners to learn more and encourage teachers to give more because they are engaged with the

variety of materials, teaching methods and styles. All students appear to be highly motivated in a circle of increased student attention and participation. The use of an IWB allows the language skills and activities to be presented in a more stimulating and interactive way because the features of IWB such as moving between different screens and playing audio and visual activities. The following example shows us partly one such active class.

*The teacher finished module 11 and moved on to module 12. 'The verb wants'. The teacher minimized the viewed page and opened a blank page on the IWB. Then he wrote some examples about the verb 'want'. E.g. I want to visit Cairo. He was using most icons on the IWB. Then the teacher started with module 12 with the first point 'vocabulary- things you buy'. The teacher did not use ICT this time. The teacher handed out sheets from the internet containing pictures about things you can buy. The students worked in pairs and answered the exercises on their sheets. During this activity, the teacher opened the Cambridge dictionary on the IWB which was installed on the computer. The teacher showed the kinds of clothes on the IWB from the dictionary. And he explained it. Then he opened a blank page and gave more examples 'to use / to buy /I want to buy....'. Afterwards he asked the students to write examples on the sheet. Then the teacher listened to the students' examples". (Jobril, observation)*

ICT use also breaks routines and makes classes more varied. Activities such as watching videos, exposure to native pronunciation,

watching real pictures, explaining the meaning of words with pictures and real examples, practicing language, and working in pairs and groups, break the routine and make lessons more attractive to learners, most of whom have learnt their area of expertise in a traditional classroom (such as human sciences or practical sciences). The nature of Libyan traditional classroom are that learners are taught collectively in large classes and they experience a lack of interaction in the classroom. Teachers traditionally use the chalkboard, recorder and teacher centred approaches which do not offer learners much choice about what they want to learn and how to learn. The use of ICT in teaching and learning is new for Libyan learners, however EFL teachers in this study understood the significance of ICT use in education and they do their best to create an engaging classroom atmosphere.

*“Because always I try to use something different, something new with my students, because if you use the same questions and the same material with your students they will get bored”.* (Jobril)

The classroom atmosphere becomes full of real activities, such as watching authentic videos, looking at real pictures, listening to native conversations, describing what has been watched, and discussion of activities. All such activities do not allow learners attention to wander. The variety in the class leads to increased interaction and allows the learners to work in pairs and groups which enable them to become more dynamic and enthusiastic in their lessons. It was observed that teachers engage their learners by using the IWB's multiple functions. The tactile use of IWB increases learners' participation. Rather than just sitting

back and being lectured to, learners are able to take more an active role in their learning with use of an IWB.

### **B. Enables exploration authentic materials**

The findings showed that all the EFL teachers use ICT to expose their students to the culture of the target language. However, there were some slight differences in terms of the benefits realised through ICT use among the participants. Three of the interviewed teachers reported that they used ICT to let students become exposed to real objects. There were some reasons why the teachers considered the use of ICT as the only option to let the students become exposed to the target language culture. These reasons included the cost of learner's travelling to native speaking countries, the ease of learning and teaching using ICT rather than using traditional equipment such as video or cassette players. The fact that the multiple functions of the IWB save time, display authentic activities through CD, flash memory, language software and the Internet if available in classrooms.

*“Sometimes if you want to give your students or your class exposure to real life, this is your option. It's the only option that you can use”.*  
(Jobril)

Four teachers reported that they use ICT because it is an easy way to let learners become exposed to authentic materials in general. Learners can become exposed to real English life through the use of CDs, for example, and through this become exposed to native English pronunciation. This helps students make a distinction between words

they may struggle with, such as ‘park’ and ‘bark’. Experiencing a real environment helps students know the meaning and the correct use of sentences, phrases and words. For example, they can learn how English people buy train tickets by watching a video on the IWB. The learners listen and watch the video at the same time. Generally, the learners are exposed to a real English environment in this way. The classroom observation data emphasizes this fact.

*“At (12: 18) the teacher told the students that you will watch a video and select the correct answer. ‘Real life-buying a train tickets’ (Jobril, observation)*

Moreover, the interview data emphasises that teachers use ICT to let students become exposed to authentic material, which eased their understanding and helps them to acquire language skills in attractive and active ways.

*“The most important thing is to explain and to make I mean, to use the ICT inside the classroom in order to show and bring some realer I mean, to something real for the classroom, like conversation or something like that, video, and for currency English language using I mean, when they hear, they will hear in a very clear voice and with a British accent or an American accent, it’s up to the CD, and, yes, it saves time and it makes I mean, it makes the teaching process... it’s more, what you can say; it’s more fun and attractive at the same time”.*(Zainab)

### **C. facilitates rapid electronic feed back**

According to observation field notes, the electronic course book and the language software which was showing through the IWB offer rapid electronic feedback. The electronic feedback saves time for teachers and engages learners so they know whether their answers were right or wrong. The feedback encourages learners to raise a discussion and questions about lesson. Four teachers out of five reported the time saved in making and assessment of pupils work. The teacher gave immediate feedback about the answers of the students by clicking the feedback icon on the IWB.

*“The teacher moved to another exercise ‘work in pairs’. ‘What are these people doing now?’ ‘Do you think?’ The teacher wanted the students work in Paris. The students worked in pairs to do this exercise. At (11: 40), the teacher sat in the front of computer and used the mouse to press listening Icon to the conversation and the students check their answers. Then the teacher pressed the answers icon to give immediate electronic feedback. ” (Nori, observation)*

### **3-The problems the teachers face while using the IWB**



**Figure 3: The problems teachers face while using the IWB**

The problems teachers encounter with the IWB are not foreign language specific, but rather are more general problems which can affect each other. These consisted of:

**A- Computer and interactive white board problems,**

These included issues with hardware and software, aggravated by the lack of internet connection in classrooms and the inability to update antivirus software and other software which led to computer crashes or loss of functionality, obliging teachers to abandon planned lessons and switch rooms which was frustrating and impacted on teaching and learning. The course books sometimes required this missing internet connection and to overcome this and other issues the teachers bring internet materials from the staff room, which does have a connection. The university administration needs to be aware of such problems, in this innovatory environment.

***B-Lack of training courses:***

Despite administrative pressure to use ICT in classrooms, the training teachers craved was not provided. Four teachers professed their lack of understanding about how to use ICT inside the classroom.

*" Yes, I am still too slow to use the keyboard, this one, and actually I don't usually use it. ...I don't know what all the advantages or the features of the IWB are. I just know how to show the photo or the picture or something like that on the IWB board and how to write on it, only that."*(Nori)

They resorted to informal assistance from others to develop their understanding.

**C-Power cuts**

The need for ubiquitous air conditioning leads to power cuts in the summer. All the participants identified this problem which interrupts the

teacher and the students during the classes and affect the lesson progress.

#### **D-Lack of computer literacy and the newness of technology**

To reiterate ICT is a very recent innovation in Libya, therefore no teachers initially had any experience of using ICT professionally or personally although it was a dream of many teachers to use such technology.

*“Most of the Libyan teachers in our language centre, they are not familiar with how to use the interactive whiteboard or computers “*

The teachers had personal motivation to use authentic materials through ICT to develop the target language and culture for themselves, in addition to teaching students and wanted to benefit from the ICT facilities in teaching and learning which were simply not available to them when they were language students.

#### **Discussion and Conclusion**

The results confirm that the IWB has a significant impact in the field of language teaching and learning. The study was based on the need to investigate how IWBs actually contribute to teaching and learning processes (Coyle, et al, 2010) from the point of view of teachers. Despite some barriers such as lack of training courses and newness of technology and lack of Internet connection in classrooms, EFL teachers still gained both pedagogical and engagement benefits of using IWB in language classrooms. The comparison of the criteria for the pedagogical benefit of IWB, both as a tool for presentation and the development of linguistic concepts in our study with the criterion used by Cutrim

Schmid (2004, 2008) shows similar component features and principles. However, the findings contradict the claims of Claypole (2010:68) that the IWB for language teaching is far from indispensable. These teachers find it incredibly helpful. The findings also agree with Hull (2007) who states that the IWB is the technology that can easily influence learners to learn via exposure to culture and authentic materials. “When grammar, vocabulary, and cultural information are presented via a variety of technologies in real settings and for authentic purposes, they are seen as useful and pertinent to the students and are thus more likely to be absorbed into both the conceptual and linguistic memory. All these advantages of technology not only help in the teaching of language and culture but also serve to motivate students to learn a foreign language” (Hull,2007: online). One of the important findings is that the teachers could use an IWB without training courses and without Internet access in classrooms. The teachers teach and help each other in using IWB (informal training assistance). This finding may not completely agree with Hull’s argument that technology is found to be most powerful in a foreign language classroom when combined with a well trained and technologically literate instructor able to facilitate learning for students by enabling them to explore and discover the world (Hull, 2007). In spite of informal training assistance, EFL teachers emphasize the need for training courses which focus on developing their technological and pedagogical competence. According to (Hall and Higgins 2005:109) “Training in the technical and pedagogical aspects of IWB should be viewed as a continuous process rather than a discrete one, requiring

regular training sessions so that teachers can maintain and develop their ICT skills". The results suggested the essential need of internet connections in classrooms to solve many technical problems and benefit from all the features of IWB. Nevertheless, EFL teachers brought internet materials on a memory stick to use in classrooms. Exploring websites on the internet to support learning and teaching is one of the features of IWB use in classrooms (Gerard& Widener, 1999; Orr, 2008).

It can be concluded that the IWB appears to be a useful tool and is having a successful impact on the quality of language teaching and learning. The EFL teachers' perspectives on the use of the IWB in classrooms draw attention to the use of IWB for interactivity, a language specific pedagogy and the more general educational impact of the IWB. The teachers tend to see their roles as a facilitator and the development of interactivity as a feature of enhanced pedagogy. Problems with IWBs identified by Libyan EFL teachers in the current study seem to be short – term in nature rather than long term barriers. The teachers who want to develop their teaching and board the fast moving train of technology manage to overcome all the barriers that they face while incorporating such technology. Despite the speed of technology development in education, modern technology cannot replace the elements of learning and teaching process such as teacher or classroom, even online learning has tutors and learning spaces. Human interaction is central to learning and the IWB seems to have the potential to enhance it. "Just as pencils do not replace crayons but rather provide additional means of expression, computers, or cameras or any other form of technology, do

not replace other tools but add to the array of tools available to learners to explore, create and communicate” (Van Scoter, et al, 2001:25). The study could be seen as empirical proof for IWB use for teaching language which was first suggested by Gerard & Widener (1999). In future research, it would be useful to investigate the impact of IWB on each language skill separately (speaking, listening, writing, and reading) and from the points of view of both teachers and students. Therefore, further research in the form of mixed approach (qualitative and quantitative data) is needed.

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