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## The Usefulness of Interactive Whiteboards in EFL Language Centers: A Technology Acceptance Model Approach

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EFL language centers, EFL teachers, Interactive Whiteboards, ICT, Technology Acceptance Model (TAM)

#### **ABSTRACT**

The use of Interactive Whiteboards (IWBs) in English Language Teaching has gained great interests in many countries. Teachers are utilizing this technological tool for various pedagogic purposes and in numerous teaching contexts, for its positive effect on students' engagement and motivation. Yet, some teachers are still sceptical about the use of IWBs in their classes because of their beliefs and attitudes towards its real usefulness in the classroom. As a matter of fact, this shapes their teaching practices and governs their integration of Information and Communication Technologies (ICT). Against this backdrop, this quantitative case study aims to investigate the perceptions of Moroccan EFL teachers regarding Interactive Whiteboards in terms of Ease of Use, Usefulness and User Acceptance in the English Highway Language Centre (EH). The data was collected through the administration of a close-ended questionnaire to Moroccan EFL teachers in the same school. Then, the data was analysed through the Statistical Package for the Social Sciences (SPSS), in the form of descriptive statistics notably frequencies and percentages. Results revealed that Moroccan EFL teachers working in the EH have positive perceptions towards the use of Interactive Whiteboards (IWBs) in terms of Ease of Use, Usefulness and User Acceptance.

#### INTRODUCTION

The use of technology in EFL (English as a Foreign Language) classrooms has evolved along with the approaches, methods and techniques of English language teaching and learning, also with the great advancements in the field of technology that serve educational purposes and objectives. Although some researchers have raised certain critical points towards the use of technology in teaching and learning English, its effect has been heavily investigated by researchers, to affirm that there is an indirect positive impact of the integration of Information and Communication Technology (ICT) on the teaching and learning process of English in EFL and ESL (English as a second language) teaching contexts (Hubbard, 2009). Many of the technological devices and gadgets invented were associated with the educational field to facilitate the achievement of educational outcomes (Barcena et al., 2014; Saree et al., 2017; Munoz-luna et al., 2018). The English industry has helped in providing the access to these inventions to institutions, educators, teachers and students. One of the main inventions are Interactive whiteboards (IWBs) described as "touch-sensitive new generation boards controlled by a computer that is connected to a digital projector" (Saltan & Arslan, 2009).

IWBs are used in a variety of settings including classrooms at all levels of education. In many countries, teachers have begun to use this instructional tool in elementary, middle, high-schools and universities (Li, 2018). However, many institutions in Morocco are not equipped with these devices, the fact that, deprive both teachers and students from the advantages and facilities these tools offer to support the teaching and learning of English (Belmekki

& Ibrahimi, 2014; Hajji, 2018).

The use of interactive boards in teaching English as a foreign language especially in English language centres has been slightly investigated in Morocco. That is why, the following study investigates the perceptions of EFL teachers of interactive whiteboards in terms of usefulness, easiness of use and acceptance of use taking The English Highway Language Centre (EH -Meknes) as a case study.

Generally, Documents begin with an introduction. It contains a brief idea of the work, the requirement for this research work, the problem statement, and the Author's contribution to their research. Adequate latest reference citations should be included for showing the prevailing challenges and importance of recent work. This section should be concise, with no subheadings unless unavoidable. State the objectives of the work and provide an adequate background related to your work, avoiding a detailed literature survey or a summary of the results.

#### LITERATURE REVIEW

#### Computer Assisted Language Learning (CALL)

Technology and its affordances affected all areas in science and changed people's lifestyle. Information and communication technologies are the one thing and so the repertoire of technologies expands further to encompass computers and computer-related products, email, MMS, and other forms of communication (Finger *et al.*, 2007). The invention of computers had an impact on individuals' personal and professional life, and a great impact on the educational field in terms of how information can be created, exploited, stored, and transferred. This has led to

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the emergence of Computer Assisted Language Learning (CALL) in the early 1950s, as one of the most influential approaches to ICT integration in language teaching. It was inspired by the huge change in technology and the language learning approaches and methods.

Besides, it has taken different labels: Intelligent Computer Assisted learning (ICALL), Computer Assisted Instruction (CAI), Technology Enhanced Language Learning (TELL) and others but was defined as Computer Assisted Language Learning (CALL) "a process of language learning during which learners use computers and, as a result, improve their language proficiency" (Beatty, 2003). The history of CALL could be divided to three main stages the behavioristic CALL, the communicative CALL and the integrative CALL. The first behavioristic phase was a result of the application of the principles of behaviorism in education 1960-1970, it claimed that repeated exposure to the same material is beneficial for students to learn and it considered computers as the best tools to provide repeated practice in individualized basis allowing students to learn at their own pace and to free up class time for other activities (Warshauer, 1996).

The second phase (communicative call), emerged as a result of the revolution in language teaching in the 80s with the influence of cognitive and humanistic psychology that led to the rising of the Communicative Language Teaching (CLT). In addition to that, the affordances of Personal Computers (PCs) in education initiated the creation of software packages to develop students' communicative competence. During this phase, computers were used as a means not only to provide practice and stimulate discussions, writing and critical thinking activities but to use and understand language through affordances like online dictionaries (Warshauer, 1996).

The third phase (integrative CALL), was initiated by two revolutionary technological advancements in the 90s, multimedia and the internet. Affected by the principles of constructivism and socio-cultural theory, CALL integrated language skills (reading, listening, speaking and writing) at the level of the 5th skill by incorporating different technological devices in language teaching and learning.

The main focus of this phase was to support the shift from teacher centered to student centered learning, in which students are more active and more responsible for their learning. Relatedly, multimedia has played a great role to achieve the integrative goals through the variety of media it offers (text, graphics, sound, animation, video). Hence, a more authentic learning environment was created to enable students to use different learning strategies to control their pace and rate of learning.

CALL is used to support language learning using a wide range of technological devices, applications and environments, that if used appropriately, can promote the teaching and learning English in different contexts. In this regard, many devices can be used such as Personal Digital Assistants (PDA), laptops, smart phones, Mp3s, interactive white boards and others. There are also technological applications and software packages like

word processors, media production and presentation programs, in addition to technological environments of the World Wide Web and all its affordances (blogs, online dictionaries, wikis, corpora and others) (Stroo et al., 2018). Eventually, learners can have access to various materials and activities that can raise their motivation to learn the language and increase their learning efficiency and effectiveness, which brings about institutional efficiency (Hubbard, 2009).

#### Interactive Whiteboards (IWB) in Foreign English Language Teaching And Learning

An interactive whiteboard is a touch-sensitive screen that works in conjunction with a computer and a projector. the computer images are displayed on the board by a digital projector, where they can be seen and manipulated. users can control software from the computer and from the board as well. By using his or her finger or a pen as mouse, the teacher or student can run applications directly from the board. Additionally, it can be used to save, print out and distribute input like notes or drawings to different group members (Northcote *et al.*, 2010).

### The Use of Interactive Whiteboards in EFL Teaching And Learning

The academic literature about IWBs is limited, and has emerged very slowly, but there are a number of reports and summaries of small-scale action research projects conducted by teachers, schools and higher education institutions in the UK, USA, Canada and Australia (Smith & Miller, 2005). These studies highlight the positive effect of using Interactive whiteboards (IWBs) in English language teaching particularly in foreign English classrooms. It has proved to be an exciting and fun device to integrate in the teaching of English classrooms, motivating students and promoting their enthusiasm for learning (Bacon, 2011). In addition to that, IWBs account for the diversity of learning styles in the classroom and can be used in different learning environments (Chapell, 2003). Interactive whiteboards are used in ways that promote effective interaction between teachers, students and technology to foster English language learning. IWBs have different types of usage but among these we can mention the following (Smith et al., 2005; Luo et al., 2023).

- Manipulate texts and images
- Make notes in digital ink
- Viewing websites in group
- Create digital lesson plans with templates, images and multimedia.
- Write notes on educational videoclips
- Use presentation tools included in IWBs software
- Showcase students' presentations

In literature, studies on IWBs were investigated under two main categories: "Interactivity and Participation" and "Effectiveness and Efficiency" (Saltan & Arslan, 2013). The two are extremely interlinked since increase of students' interaction and engagement leads to effective and efficient language teaching and learning, as clearly illustrated in the following graph.



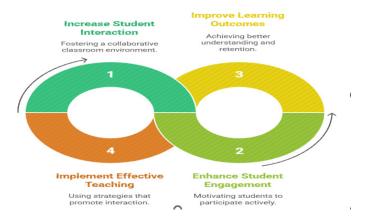


Figure 1: The synergy between effective language teaching and learning and student's engagement

Educators can use digital resources while maintaining dynamic interaction with the entire class. They can provide computer-based learning without isolating students and encourage a higher level of student's engagement in both teacher-directed and group-based exchanges. IWBs promote interaction between teachers, students and the learning materials, providing a large work space for handson activities with multimedia resources (Reed, 2001).

Substantially, the use of this technological device enhances active learning by engaging students in the learning process through stimulating their use of effective cognitive and learning strategies to enhance their self-regulated language learning. As research indicates, the functionality of Interactive Whiteboards and its accompanying affordances permit the development of classroom activities that increase the opportunities for classroom interaction and the use of a variety of strategies to accelerate the rate of learning and to achieve the established learning outcomes efficiently and effectively.

#### Teachers' And Students' Perceptions of IWBs

Many studies were conducted to assess IWBs effectiveness in foreign English classrooms, but also to investigate teachers' and students' perception towards these technological devices. Research claimed that teachers and students have overall positive perceptions and attitudes towards IWBs and they consistently report high levels of enthusiasm for the IWB technology. They like IWBs and claim that they feel comfortable using it. Furthermore, they believe that it is a very innovative and powerful support for language acquisition and has a best supplementary function in promoting language proficiency as a beneficial teaching tool (Saltan & Arslan, 2013; Huseiyn Oz, 2014).

Likewise, students found that IWBs are interesting because they are engaging and offer various multimedia aspects. Students also reported IWBs improve instruction through enhanced visuals and notes (Firman, 2007). Other researches confirmed that teachers with many years of experience had more favorable perceptions than less experienced ones, and that teachers who use the IWBs frequently have more positive perspectives on the use of IWB technology. In the same vein, studies revealed that

the more students get involved with the IWBs, the more their perceptions change favourably (Huseiyn Oz, 2014). Conversely, some studies have highlighted the shortage of IWBs in many English classrooms and the need to make teachers aware of IWB' potential during the EFL lessons to integrate IWB for classroom teaching and learning purposes. Additionally, research has pointed out to the technical and pedagogical difficulties that the use of IWBs pose for both learners and teachers, thus, it appears that teachers require additional professional and technological training to guide their learners in the use of IWBs. Schools' administration should have also a clear vision concerning the regular use of Interactive Whiteboards in the classroom by providing periodical pedagogical support for teachers and sufficient professional courses to upskill teachers in integrating this technology effectively during language teaching and learning (Kamini & Maslawati, 2020).

In Morocco, there is a lack of research investigating the use of Interactive Whiteboards in Foreign English language teaching classes due to the absence of this tool in many Moroccan primary, secondary and high schools. Classrooms need to be equipped with IWBs in order to bring a new, fun and exciting experience of English language teaching and learning. Educational policies, school administrations, curriculum, syllabus designers, and educators should facilitate the access to such innovative technological devices and encourage their use in the language teaching and learning process to meet students' needs and interests that match the economic and the digital demands of this globalized world.

#### The Purpose of The Study

The purpose of this research is to investigate Moroccan EFL teachers' perceptions of Interactive Whiteboards (IWBs) in terms of usefulness, easiness of use and acceptance of use, taking the English Highway Language Centre (EH-Meknes) as a case study.

#### **Research Questions**

The current research strives to answer the following research questions:

1. To what extent do EFL teachers in The English



Highway Language Centre (EH) perceive of the IWBs as useful?

- 2. To what extent do EFL teachers in the English Highway Language Centre (EH) perceive of the IWBs as easy to use?
- 3. To what extent do EFL teachers in the English Highway Language Centre (EH) accept to use the IWBs?

#### Hypotheses

Hypothesis 1: Moroccan EFL teachers at the English highway language center (Meknes) perceive IWBs as useful, easy to use and they accept to use them regularly.

Hypothesis 2: Moroccan EFL teachers at the English Highway language center (Meknes) perceive IWBs as not useful, not easy to use, and they do not accept to use them regularly.

#### MATERIALS AND METHODS

#### Research Method And design

The research adopted a quantitative research method making use of numerical data to investigate the extent to which Moroccan EFL teachers in the English Highway Language Center have positive perceptions towards IWBs use in EFL classrooms. Consequently, the data gathered through a face-to-face questionnaire was entered and codified in SPSS (Statistical Package for Social Sciences) for the processing and analysis of data. The type of statistical analysis employed is descriptive, utilizing frequencies and percentages.

The research design has followed a case study design to investigate Moroccan EFL teachers' perceptions of IWBs in the English Highway Language Center. Case studies are widely used in research for being economical, time and energy saving, and also thanks to their ability to describe the opinions, attitudes, experiences and other characteristics of a group of individuals or an entire population (Creswell & Creswell, 2018).

The researcher selected the English Highway language center as a research site because it provides real technological affordances that are lacking in other institutions in Meknes. It comprises 26 classrooms all equipped with IWBs and a fast connection to the internet, which allows teachers and students to benefit from a rich content in multimedia and in the web. Moreover, it has numerous computer work stations for students to work on and practice to develop their English Language learning. Thus, the teachers working in this center are surrounded by a wide large of digital choices to improve students' learning and to increase their teaching quality.

#### **Sampling Procedures**

In quantitative research, it is generally recommended to use probability sampling, but when using a case study as a research design, other sampling methods are possible. The study used one of the most popular non-probability sampling methods in social sciences, namely purposive sampling. Purposive sampling is the specific technique of selecting participants based on a set of criteria that serve

the research questions and objectives (Creswell, 2014).

Purposive sampling can be highly effective in exploring lived experiences that have to do with an intuitive approach. It is used in case studies because it allows the selection of information-rich cases for in-depth study (Albert *et al.*, 2010; Dudovskiy, 2017). It is also used to have access to a particular subset of people because they fit a particular profile, in this case, this subset comprises n=30 Moroccan EFL teachers working in the English Highway Language Center.

#### Research Instrument

The study has used a close-ended questionnaire to collect numerical data to save effort and time, and most importantly to collect data from teachers at their convenience. According to Rogers (1995), the theory of 'diffusion of innovation' established the foundation for conducting research on innovation acceptance and adoption, as a result the questionnaire used was adapted from Technology Acceptance Model (TAM) (Davis, 1989). This latter has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: Perceived Ease of Use (PEU) and Perceived Usefulness (PU), and that lead to User Acceptance (UA).

#### RESULTS AND DISCUSSION

The data collected through questionnaires was analyzed through the SPSS (Statistical Packages for the Social Sciences) to provide descriptive statistics that correspond to the research questions and objectives. The population studied include all teachers working in the center (n=30), and who exhibit different age categories, educational backgrounds and professional experience distributed as follows:

Demographic information included gender distributed as presented in the following graph (Graph2). This latter, shows the distribution of males and females among the research participants; there is a clear gender unequal distribution in terms of percentages since males represent (83.3%) while females represent only (16.7%). In other words, females are underrepresented in this research compared to males. As the study included all teachers working in the English Highway Language Center, this variable could not be controlled.

When investigating Moroccan EFL teachers' educational backgrounds, the data analysis revealed that they have different educational degrees in various fields. The degrees range from Bachelors of Art to Ph.D. in various specialty areas like Applied Linguistics, Literature, English Language Teaching, and Culture, Communication and gender studies. Teachers in the English Highway language center teach different levels starting from beginners to advanced, which increases their adaptability and flexibility concerning the selection of materials and resources, activities, and methods.

Another variable studied is Moroccan EFL teachers' teaching experience, and how this affects their perceptions of IWBs. Table 1. represents the teaching years of



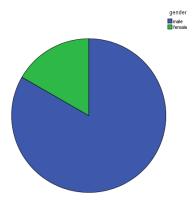


Figure 2: The distribution of gender in the study

experience of teachers in EH (Meknes). As clearly shown (53.3%) of the teachers inquired have more than ten years of experience, (16.7%) have between 4-6 years and (13.3%) have 6-8 years. Hence, most of the teachers working in the English Highway Language Center have a long-time experience in teaching EFL.

Table 1: Teachers' teaching experience

| Teaching Experience |       | Frequency | Percent |
|---------------------|-------|-----------|---------|
| Valid               | 0-2   | 1         | 3,3     |
|                     | 2-4   | 2         | 6,7     |
|                     | 4-6   | 5         | 16,7    |
|                     | 6-8   | 4         | 13,3    |
|                     | 8-10  | 2         | 6,7     |
|                     | 10+   | 16        | 53,3    |
|                     | Total | 30        | 100,0   |

Table 2 demonstrates teachers' years of experience using IWBs in class. (26.7%) of the teachers questioned have 2-4 years of IWBs usage in class, (20 %) have 4-6 years, (16.7%) have 8-10 years, and 13.3% have more than 10 years of teaching English with the Interactive Whiteboards. Eventually, Moroccan EFL teachers in the English Highway language center have a good acquaintance with using the IWBs in their English classrooms and that will certainly affect their perceptions and attitudes towards its usefulness.

**Table 2:** Moroccan EFL teachers' years of experience using IWB

| Experience with IWBs | Frequency | Percent |
|----------------------|-----------|---------|
| 0-2                  | 3         | 10,0    |
| 2-4                  | 8         | 26,7    |
| 4-6                  | 6         | 20,0    |
| 6-8                  | 4         | 13,3    |
| 8-10                 | 5         | 16,7    |
| 10+                  | 4         | 13,3    |
| Total                | 30        | 100,0   |

The tables (3 and 4) represent the percentage of teachers who received formal training on how to use the Interactive

Whiteboard and the number of hours. As presented in the first table, 76.7 % of teachers received formal training while 23.3% did not. Concerning the number of training hours, the second table show that among those who received formal training, 26.7 % had more than 10 hours training, 20% had between 4-6 while 10 % had between 8-10 hours.

**Table 3:** The percentage of Moroccan EFL teachers who received a formal training on IWBs usage

| Formal Training |       | Frequency | Percent |
|-----------------|-------|-----------|---------|
| Valid           | Yes   | 23        | 76,7    |
|                 | No    | 7         | 23,3    |
|                 | Total | 30        | 100,0   |
|                 | Total | 30        | 100,0   |

**Table 4:** The number of training hours received by Moroccan EFL teachers on IWB usage

| Hours of training |        | Frequency | Percent |
|-------------------|--------|-----------|---------|
| Valid             | 0-2    | 2         | 6,7     |
|                   | 2-4    | 2         | 6,7     |
|                   | 4-6    | 6         | 20,0    |
|                   | 6-8    | 2         | 6,7     |
|                   | 8-10   | 3         | 10,0    |
|                   | 10+    | 8         | 26,7    |
|                   | Total  | 23        | 76,7    |
| Missing           | System | 7         | 23,3    |
| Total             |        | 30        | 100,0   |

Concerning the type of IWBs training received, the researcher proposed three types of formal training received by teachers; tool focused (training on how to physically use the IWBs), curriculum focused (training on how to integrate the tool into the curriculum) and both tool and curriculum focused training 43.3% of the teachers who had formal training on IWBs, received both tool and curriculum-based training while 33.3% received tool focused training (table below).

When asked about the additional trainings teachers would like to receive, 43.3% of teachers think that no additional trainings are needed. However, 33.3% think they need additional tool and curriculum focused training, while



Table 5: The type of IWB training received by Moroccan EFL teachers at EH

| Type of Training   |                             | Frequency | Percent |
|--------------------|-----------------------------|-----------|---------|
| Valid Tool focused |                             | 10        | 33,3    |
|                    | Tool and curriculum focused | 13        | 43,3    |
|                    | Total                       | 23        | 76,7    |
| Missing            | System                      | 7         | 23,3    |
| Total              |                             | 30        | 100,0   |

Table 6: The type of additional trainings that EFL teachers would like to receive

| Additional Training |                      | Frequency | Percent |
|---------------------|----------------------|-----------|---------|
| Valid               | Tool focused         | 1         | 3,3     |
|                     | Curriculum fofocused | 4         | 13,3    |
|                     | Both                 | 10        | 33,3    |
|                     | None                 | 13        | 43,3    |
|                     | Total                | 28        | 93,3    |
| Missing             | System               | 2         | 6,7     |
| Total               |                      | 30        | 100,0   |

13.3% think they need additional tool focused training (Table 6).

#### Teachers' Perceptions of Interactive Whiteboards Perceived Usefulness (PU):

To investigate the usefulness of Interactive Whiteboards for Moroccan EFL teachers at the English Highway Language centre -Meknes, the first subscale included 6 items to examine the Perceived usefulness (PU) of IWBs in English classrooms. This latter is one of the

main elements of the Technology Model of Acceptance (TAM). Based on the table below, the highest mean 1.80 in Q4 (using the IWB enhances my effectiveness on the job). The second highest mean is 1.63 in Q3 (using the IWB increases my productivity). The standard deviation ranges from 0.379 to 0.718 indicating a narrow spread around the mean. Consequently, Moroccan EFL teachers at the English Highway language centre perceive of the usefulness of IWBs in enhancing their effectiveness on the job and their productivity.

Table 7: Teachers' Perceived Usefulness (PU) of IWBs

| Perceived Usefulness | N  | Mean | Std. Deviation |
|----------------------|----|------|----------------|
| Q1                   | 30 | 1,17 | ,379           |
| Q2                   | 30 | 1,37 | ,615           |
| Q3                   | 30 | 1,63 | ,890           |
| Q4                   | 30 | 1,80 | ,761           |
| Q5                   | 30 | 1,40 | ,621           |
| Q6                   | 30 | 1,37 | ,718           |
| Valid N (listwise)   | 30 |      |                |

#### Perceived Ease of Use (PEU)

The second subscale examined is the Perceived Ease of

Use (PEU). The highest mean 5.70 is attributed to Q3 (Interacting with the IWBs is often frustrating), (50%)

Table 8: Teachers' Perceived Ease of Use (PEU) of IWBs

| Perceived ease of use | N  | Mean | Std. Deviation |
|-----------------------|----|------|----------------|
| Q1                    | 30 | 1,77 | 1,357          |
| Q2                    | 30 | 1,77 | 1,223          |
| Q3                    | 30 | 5,70 | 1,803          |
| Q4                    | 30 | 1,60 | 1,248          |
| Q5                    | 30 | 1,87 | 1,224          |
| Q6                    | 30 | 1,57 | 1,223          |
| Valid N (listwise)    | 30 |      |                |

1,97

5,40



of the teachers questioned disagreed with this item, (66.7%) think they find the IWB easy to use (Q5) and it was easy for them to become skilful in using the IWB (Q6). The standard deviation ranges from 1.223 to 1.803 which means there is a wide spread between the mean. Eventually, Moroccan EFL teachers in EH think of IWBs as easy to use.

#### User Acceptance (UA)

Acceptance of use

Q1

Q2 Q3

Q4

Q5

Q6

The third subscale examined is the Acceptance of

N

30

30

30

30

30

Table 9: Teachers' Acceptance of use (AU) of IWBs

| of | without it. The standard deviation ranges from 0.935 to 2.111 which means there is a wide spread in means between Q1 and Q6. |                |  |
|----|--|----------------|--|
|    | Mean   | Std. Deviation |  |
|    | 1,23   | ,935           |  |
|    | 1,30   | ,988           |  |
|    | 1,27   | ,944           |  |
|    | 1,97   | 1,273          |  |
|    |  |                |  |

Use (AU), (90%) of the teachers use the IWBs every

session (Q1), (86%) use it for different purposes (Q2) and (86.7%) recommend its use to other teachers (Q6).

On the other hand, (53.3%) disagree with the idea that

they cannot teach without using the IWBs. As a matter

of course, Moroccan EFL teachers at EH accept to use

the IWB regularly but they affirmed that they can teach

Valid N (listwise) 30

The quantitative data analysis following the Technological Acceptance Model (TAM), has permitted to confirm hypothesis 1, Moroccan EFL teachers at the English Highway Language centre perceive IWBs as useful, easy

to use, and they accept to use them regularly.

The results have shown that EFL teachers of the English Highway Centre have positive perceptions of the IWBs (Interactive Whiteboards), but many variables contribute to shape their beliefs and attitudes. the Technology Acceptance Model (TAM) tested two specific beliefs: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). Perceived Usefulness is the potential user's subjective likelihood that the use of a certain system will improve his/her action, whereas Perceived Ease of Use is the degree to which the potential user expects the target system to be effortless (Davis, 1989), and that lead to the Acceptance of Use (AU) which entails using the tool regularly for different purposes and recommend it to others.

The teachers questioned have expressed their positive perceptions towards the usefulness of IWBs by affirming the role of IWBs in doing tasks quickly, improving the job performance, increasing productivity and effectiveness. Subsequently, they consider IWBs useful tool devices to use in teaching English as a foreign language.

Concerning the ease of use, many disagreed with the idea that the interaction with IWBs is a frustrating one. The majority found that IWBs easy to use and that it helps them to become skilful in using them. Similarly, when measuring teachers' acceptance of use, (90%) affirmed that they use IWBs every session and for different purposes. Therefore, (86.7%) recommended the use of IWBs in English classrooms. However, (53.3%) disagreed with idea that they cannot teach without the IWBs. Teachers consider IWBs as technological facilitating

tools that help in increasing the quality of teaching and learning, but they believe they are also able to teach effectively without them.

1,377

2,111

The belief of the person towards a system may be influenced by other factors referred to as external variables in TAM (Davis, 1989). Substantially, many the variables investigated could have affected teachers' perceptions of Interactive Whiteboards. The fact that males constitute (83.3%) of the sample questioned could be one factor that intervened with the result, since that literature has always pointed out to the relationship between gender and the use of technology in education.

A number of studies asserted that male instructors might have greater expertise and feel more confident in the use of technology than females. Female teachers are more likely to have a student-centred overall concept of teaching (Zhu & Xu, 2007). Additionally, males rated their knowledge and experience with some innovative technologies higher than did females (Spotts *et al.*, 1997). These findings could be justified because gender imbalances in computing are socially constructed and not related to a learner's innate ability (Yau & Cheng, 2012). As a consequence, gender may affect teachers' perceptions and their integration of technology in the English classrooms.

Other factors such as the teaching experience with and without the use of IWBs can affect teachers' perceptions of IWBs use in English classrooms .Since a considerable percentage of the teachers questioned (53.3%) have more than 10 years of experience teaching English, it was found that the experienced teachers' most prominent reason to start integrating technology in the classroom, was the search for quality in education (Sokiar & Kabakci, 2017).The relationship between experience and the use of technology can take different forms, still in this case it influence Moroccan EFL teachers' perceptions positively.



Additionally, Moroccan EFL teachers' at EH have a good experience using IWBs in English classroom. The shortest experience using IWBs is 2 years with the percentage of 10%, and the longest is more than ten years with the percentage of 13.3%. Literature confirmed that teachers with many years of experience have more favourable perceptions towards IWBs than less experienced, and that teachers who use IWBs frequently have more positive perspectives on the use of IWBs technology (Oz, 2014). The regular use of IWB increases teachers' confidence to manipulate this device and raises their preparedness to integrate it in supporting the language teaching and learning process.

Teachers' professional development is also one of the factors that promote the use of technology in the classroom. The study revealed that (76.7%) of the teachers questioned received trainings to use IWBs while (23.3%) did not. Two types of trainings were proposed: tool and curriculum focused trainings. (43.3%) of teachers affirmed they received both types of training, whereas (33.3%) received only tool focused training that do not emphasize the integration of technology in the curriculum. When asked about the need for an additional training, (43.3%) of teachers confirmed no need for additional training while (33.3%) believe they need additional training in both types (tool and curriculum focused trainings).

As stated by previous research, training with IWBs has the potential to be a booster for education by positively impacting engagement learning, and interaction, its greatest benefit may be its ability to not only encourage teachers to get on the technology movement, but give them the confidence to take the reins and implement IWBs in their own classrooms (Hayes, 2010). Besides, both types of training (tool and curriculum focused) are needed to enhance the effective IWBs implementation in English classrooms in order to join the technical to the pedagogical aspects of ICT integration.

The quantitative analysis of the questionnaire has not only enabled to identify the positive perceptions of Moroccan EFL teachers in the English highway language center (EH-Meknes) with regard to the perceived usefulness and ease of use of IWBs, but also to shed light on different factors that affect teachers' attitudes towards the integration of technology in language classrooms.

#### Implications and Recommendations

The findings had significant implications on the educational and institutional policies adopted in language centres, which contributes in promoting ICT integration in Foreign English Classrooms in Morocco:

- Schools should be equipped with necessary technological devices such as the IWBs to enhance students' motivation and engagement to learn.
- Teachers should benefit from tool and curriculum focused trainings to use technology effectively and to promote their professional development.
  - · A gender approach needs to be taken into account

when hiring teachers in language centres to sustain gender equity.

- Coordination and cooperation between experienced and novice teachers is essential to pass on knowledge and experience.
- Teachers need to create a professional community that aims to improve the quality of teaching and learning and to prevent any mismatches between technology and pedagogy.
- Technical assistance should be provided to teachers and students whenever needed to avoid any inconvenience during courses.

With respect to future research, further research is needed to investigate other variables that affect teachers' ICT integration perceptions and practices in specific teaching contexts, to bridge the gap between theory and practice and increase the effectiveness of ICT integration in English Language Teaching.

#### **CONCLUSION**

The study was conducted to investigate Moroccan EFL teachers' perceptions of Interactive White Boards (IWBs) in The English Highway Language Centre (EH-Meknes) in terms of Perceived Usefulness, Ease of Use and User Acceptance. The study revealed that teachers in the English Highway Language Centre have positive perceptions towards Interactive Whiteboards that lead them to accept the regular use of IWBs for different purposes. However, the study uncovered many of the variables that contributed to the formation of these perceptions and attitudes, in particular, gender, teaching experience, and professional development opportunities.

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