

Investigating Teachers' Perceptions towards the Incorporation of ICT in the EFL Classroom in Morocco

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Abstract: *The current paper aims at exploring and investigating how teachers perceive the integration and incorporation of ICT in the foreign language classroom in Morocco (EFL). In the current research study, we administered a questionnaire in a google form to efficiently and easily collect responses from teachers of English in Morocco. The study adopted both quantitative and qualitative research design methodologies. With a view to analysing the qualitative data, a coding system was used whereas the quantitative data were statistically measured and analysed with the use of SPSS software. To this end, 156 middle and high school Moroccan EFL teachers were requested to respond to an online questionnaire to seek evidence about their perceptions and attitudes towards the incorporation of ICT in EFL language classrooms for pedagogical purposes. For unknown reasons, only 75 teacher-respondents including both middle and high school teachers managed to fill out the questionnaire and send back their responses. The research study has come out with very promising findings highlighting the fact that teachers of English have positive attitudes towards the integration and use of ICT in their language classrooms. Most teacher-respondents reported observable positive impacts new technologies have on their learners. They have stressed the fact that when used appropriately, ICTs positively impact the students' learning as they seem to learn faster and with much excitement and enthusiasm. E-learning and ICT, according to most respondents, have also proved that students' soft and life skills get better as they play an undeniably important role in enhancing learning by increasing the learners' motivation and engagement. The study reports that thanks to these innovative learning strategies, knowledge retention seems better off and teachers feel more at ease. Therefore, the outcome is more comforting for both teachers and learners. In a different vein, many respondents reported that many teachers do not have access to their school multimedia rooms which is either equipped with old-fashioned materials and outdated technology or completely transformed to an ordinary classroom with no equipment at all for reasons that are beyond those for which these rooms were designed. The research paper similarly assesses the different challenges and barriers that teachers encounter while integrating ICT in their language classroom. Respondent-teachers have saliently showed that lack of training, ineffective or excessive use of ICT might do more harm than good to the students' learning. The main conclusion that most teachers have drawn was that integrating and incorporating ICT in the EFL language classroom has been proven to pedagogically benefit the learners and the teachers in different ways despite the numerous challenges that the paper has investigated.*

Keywords: ICT, attitudes, barriers, impact, challenges, EFL classroom, TEFL, gender, incorporation

1. Introduction

Information and Communication Technology (ICT) has been proven to offer various opportunities for both teachers and learners. However, it remains one of the most important challenges for educators today as it has impacted almost all aspects of our lives, and teaching English as a foreign language (TEFL) is not an exception in this respect. The integration of ICT into educational practice continues to have the potential to rethink and reshape the teaching and learning practices and offer an additional dynamism to the language classroom for a better teacher engagement and more learner centredness. It is no wonder that teachers have played an undeniably important role in the integration of technology into their teaching. With this in mind, the current study seeks to explore Moroccan high school EFL teachers' perceptions towards the use of information and communication technology (ICT) in their classroom and the potential challenges and constraints they encounter in integrating and incorporating technology into the EFL language classroom. The research results indicated that although Moroccan teachers of English share an overall positive attitude towards the use of new technologies in their teaching, they all agree that lack of sufficiently adequate competences and skills poses an unescapable hindrance for them. Thus, the necessity of continuing professional

development to provide teachers with the necessary skills to integrate ICTs in their teaching.

It has become so unrealistic to address this era without taking into account the diverse and varied types of technological tools and their undeniably overwhelming impact on all parts of users' lives. In this regard, it is noteworthy to highlight that education is one of those multiple arenas and areas impacted by technology and the teaching and learning English as a foreign language (TEFL) is a good example that shows the importance of integrating new technologies into the language classroom. This has been apparent in recent years with the introduction and use of diverse types of technological tools to fit the innovative classroom.

The use of technology in education and in the EFL classroom in particular has recently flourished so profoundly in the Moroccan context and there has recently been a growing interest and awareness among teachers and educators to the importance of integrating new technologies in teaching in general and the teaching of English as a foreign language (TEFL) in particular. This has been endorsed by the Ministry of education through taking different decisions that all aim at integrating and using ICT in teaching in Morocco. The Ministry's positive attitude to

the use of these technologies and their 'good-will' to develop both teachers and students' skills has shown the officials' interest and enthusiasm 'to build innovative rather than traditional curricula' and to adopt technology-based approaches in teaching. To comply with the Ministry's vision, teachers of English have managed to integrate ICTs in different ways with a view to further enhance their students' learning, promote change and foster the 21st century soft skills in the language classroom (Trucano, 2005 cited in Caty-Ann Rampersad, 2011). It should equally be noted that the Ministry's growing recognition to shift from the traditional language classroom to the digitalized one has undergone a process which started in 2007 and was extended in 2015 within the framework of both the "emergency programme for education and training" and "the strategic vision for education and training 2015-2030" respectively. This shows the extent to which the government has geared its educational policy 'towards an optimal integration of ICT in innovative learning processes' (Coskun & Kinnisnet, 2010). According to the ministry's officials, the integration of ICT in the EFL classroom has proven to have the potential to transform the teaching and learning processes into a student-centered approach which has resulted in various optimized and increased learning gains and benefits for the EFL student in the Moroccan context.

In line with this and as a result of the current persisting COVID-19 pandemic, the Moroccan ministry of national education, vocational training and higher education has made a shift to a 'hybrid' mode of teaching including both in-person classes and online classes. This has shown the imminent need and the urgent will of the Ministry's officials to adopt the existing modes of teaching to the new COVID-19 era and help learners overcome potential problems in using ICT to learn remotely. The decision has come amid the worrying situation due to the continuing spread of the COVID-19 pandemic and the growing numbers of contamination among teachers and students alike. Ministry officials contend that the decision concerns all levels across Morocco in the public, private, and foreign education system (Hespress, september12, 2020). Additionally, the Ministry have noted, however, that in-person learning would still be an option for parents wishing their children to physically join schools instead, which means that in-person class attendance was not made compulsory but a parental choice, a school commitment and a societal engagement. To meet the requirements of the current era and to respond to the needs of a large student population that failed to study in-person, the Ministry have provided these students with recorded lessons they have made available for students to follow remotely through the existing TV channels in Morocco.

Existing studies in this research area and in line with requirements of the current study confirm that the use and incorporation of ICT in the language classroom is a key component for providing new opportunities for students to learn to act and interact in a digital era characterized by the rapid flow and abundance of information (Zanzoun, 2020). It is evident, as Yelland (2001) argued, that traditional educational environments do not seem to be suitable for preparing learners to function or be productive in the workplaces of today's society. Hence, the urgent need of the

innovative classroom which adopts and integrates new technologies. She (Yelland) also assumed that organisations that do not incorporate the use of new technologies in schools cannot efficiently manage to prepare their students for life in the twenty-first century and equip them with the necessary soft skills. This argument is supported by Grimus (2000), who pointed out that "by [integrating] ICT skills in primary schools, the pupils are prepared to face future developments based on proper understanding" (p. 362).

Equally important, when catering for an efficient learning environment and meeting the requirements for a successful incorporation of information and communication technologies (ICT) into the EFL classroom, we should not put aside the optimal role the teacher plays in teaching English (Soussi, 2015). To this end, the Ministry of national education has drawn conclusions from various teachers' recommendations in seminars and forums that all show the urgent need to equip teachers with the necessary skills to use ICT in their language classroom (MATE 8th national ICT conference, 2015). Given the importance of ICTs in the EFL classroom, the Ministry still consider the 'teacher's responsibility to assess these innovative technologies' (Soussi, 2015) and judge how they fully fit the students' level and their interest and their compatibility with the school environment. This corroborates with Albirini (2006), who stated in a study he conducted in Syrian schools on EFL school teachers' perceptions towards the use of ICT, that "In particular, the technology implementation plans seem to be lacking consideration of teachers' reaction to the new tools. Such in attention to the end-users' attitudes may engender unforeseen repercussions for ICT diffusion in Syrian schools" (p. 374). It would be sound to say, in this regard, that what Albirini sought about Syrian schools also holds true for Moroccan schools and confirms the findings of the present study in terms of implementation and obstacles.

The beliefs and attitudes of teachers towards the integration of ICT in teaching is central to the successful implementation of new technologies. Although teachers are encouraged to integrate ICT into their teaching practices, there is still evidence that the effectiveness of this integration depends on teachers' willingness to use these technologies to meet the needs of their learners. According to Seamus Hegarty et al (2013) in a series of In-depth Analyses Based on Data^[1] of the International Association for the Evaluation of Educational Achievement (IEA), this might be directly associated with their confidence and knowledge in using ICT, as well as their beliefs about the valuable importance of ICT in education. The same authors claim that female teachers using technology effectively provide a role model for young women at school. However previous studies have shown that female teachers are less likely to be using computers for personal purposes than their male counterparts. This gender-based disparity in the use of ICT in the Moroccan classroom will be addressed thoroughly in the current study.

2. Research Questions and hypotheses

Related to the background and review of literature the study was geared and guided by the following research questions and null hypotheses :

R.Q 1: What attitudes do teachers of English hold towards the use of ICT in EFL classrooms in Moroccan state schools ?

R.H1 : It is hypothesized that EFL teachers in Morocco hold a negative attitude towards using ICT in their teaching practice.

R.Q 2 : What are the potential challenges that teachers of English encounter in using ICT in their EFL classrooms in Moroccan state schools ?

R.H2 : It is assumed that EFL teachers do not actually encounter any barriers while using ICT in their classrooms.

R.Q 3 : To what extent does the gender variable determine and explain teachers' perceptions towards the use of ICT in the EFL classroom in Morocco ?

R.H3 : It is hypothesized that there is no statistical significance between the gender variable teachers' perceptions towards the use of ICT in the EFL classroom.

The two first research questions were quantitatively analyzed, while question three was qualitatively addressed. It is to be noted that research question 3 can be broken into the following sub-questions which were all matched with null hypotheses :

R.Q.3.1: Does gender explain the Importance of ICT Use in teaching

R.Q3.2: Is there any relationship between gender and the availability of ICT tools in the EFL classroom ?

R.Q3.3: Is there a relationship between gender and the use of ICT as a medium of instruction in EFL Moroccan classrooms ?

R.Q3.4: Does gender determine the use of ICT as an advanced instructional tool ?

R.Q3.5: Does gender explain the accessibility of ICT tools for EFL teacher ?

R.Q3.6 : Does gender affect the use of ICT to promote students' learning ?

R.Q3.7 : Does gender impact the effectiveness of ICT in teaching and learning in the EFL classroom in Morocco ?

3. Methodology

3.1 Participants

The current study is based on a questionnaire and was conducted on a sample of 156 school teachers working in different state schools in Morocco with different genders, ages, and teaching experience. The targeted teacher-respondent sample are from both rural and urban areas. The overall number of respondents who sent back their answers via a google form were only 75 including males (66,7%) and females (33,3%). This goes in line with the research requirements which identify that a number of 30 respondents or so should "be the minimum number of cases if researchers plan to use some form of statistical analysis on their data," (Cohen et al, 2007; P: 101). In the present study, 22, 7% of the respondents were 30 years of age or less and 77.3% were more than 30 years of age having different

educational degrees such as BA (65, 3%), MA (24%) and PhD (10,7%). It should be of equal importance to add that 60% of the respondents have spent more than 10 years of experience and 40% have taught for 40 years or less.

3.2 Instruments

The questionnaire was the main research tool that was adopted in the current study. The questionnaire included 18 questions that were developed on Google forms platform and sent by email to teachers through different teachers' emails. It consisted of four parts, each of which contained a number of questions seeking research evidence and data on different areas of the study including the demographic variables, ICT trainings participants have had, their attitudes towards the use and integration of ICT in the language classroom and the potential challenges teachers encounter in using technology in their classroom. To meet the research requirements, the questions were both of close and open-ended types, which allowed the researcher to codify and analyse the respondents' responses both quantitatively and qualitatively. Additionally, to investigate whether or not a correlation exists and how strong or weak that relationship is between various variables, the most commonly adopted and widely used technique is the Pearson correlation coefficient (r). The current study aims at investigating the relationship between the gender variable and the use of ICT in the EFL classroom as the dependent variable and exploring whether there is a statistical significance between the variables. In the present study, all the research hypotheses are alternative hypotheses stating that there is a statistical difference between the variables. Confirming the alternative hypothesis is accompanied with rejection of the null hypothesis and vice-versa. Deciding whether to accept or refute the hypothesis is based on the level of significance which determines the point at which we can confirm that there is a difference between gender and the use of ICT. Based on a probability level, the researcher decides whether to accept or reject the null hypothesis.

3.3 Procedure

The questionnaire, which was the mainly employed instrument and the only standalone tool for collecting data in the present study, was distributed by email to each teacher-participant's mail box among our connections in the country working in middle and high school state schools during the COVID-19 lockdown last April. We relied basically on Facebook pages of special interest groups such as MATE (Moroccan Association of Teachers of English). The questionnaire was then filled in by teacher-respondents and processed online by Google forms. As it was mentioned before in this paper, thanks to technology, the data collection procedure was conducted time wise though not all the targeted respondents sent back their replies due to unknown reasons. However, we should admit that a significantly reliable number was returned in promptly. It seems sound to stress that, despite some technical issues related, the questionnaire facilitated the data gathering process from a large portion of respondents in a short period of time. It also helped teacher-participants to express their ideas freely.

4. Data Analysis

The present study adopts both a qualitative and quantitative research design as it was stated earlier in the current piece of research and to seek if there is a correlation between any of the independent variables (Gender in our case) and the dependent variable (i.e the use of ICT), the main tool used in quantitatively analysing data is SPSS (Statistical Package for Social Sciences), mainly the Pearson correlation coefficient. For respondents' verbatim, content was analysed using both coding and classification. To put it further, the researcher focused mainly on the respondents' attitudes towards the use of ICT in the EFL classroom in Morocco and the potential barriers and challenges that EFL teachers mainly encounter in the language classroom.

5. Presentation and Discussion of findings

After collecting data and in order to seek research evidence on whether or not a correlation exists and the extent to which such a correlation is strong or weak between different variables, the most commonly used statistical technique is the Pearson correlation coefficient. Correlation analysis, thus, explains whether two variables are positively correlated. The current study aims at investigating the relationship between gender as an independent variable and the use of ICT in EFL classrooms in

Morocco as a dependent variable. Whereas, a chi-squared test (χ^2 test) is a statistical hypothesis test where the sampling distribution of the test statistic is a chi-squared distribution when the null hypothesis is true. Without other qualification, 'chi-squared test' often is used as short for Pearson's chi-squared test. The chi-squared test is used to determine whether there is a significant association between the variables. The scope of the current study and in line with the research questions and research hypotheses allows us only to see if there is a correlation between gender and the use of ICT in the Moroccan EFL classroom and whether gender as the independent variable determines ICT use among Moroccan teachers as the dependent variable.

5.1 Relationship between gender and the use of ICT in the EFL classroom

Table 1: Gender and the Importance of ICT Use in teaching

Crosstab		Yes	No	Total
	Male	49	0	49
	Female	24	1	25
Total		73	1	74

As table 1 above shows, 49 (n = 49) of the male respondents report that the use of ICT is very important in teaching and 24 (n = 24) of the female respondents state that ICT is of utmost importance in the EFL teaching classroom.

Table 2 : Chi-Square test for association between gender and the importance of ICT in teaching

Chi-Square Tests	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.987 ^a	1	.159		
Continuity Correction ^b	.119	1	.730		
Likelihood Ratio	2.197	1	.138		
N of Valid Cases	74				

For a better understanding and to seek research evidence whether a correlation between gender and the importance of ICT in the EFL classroom exists, the results show that, the Pearson chi-square statistic is 1.987 and the p-value is .159 (p = .159). The likelihood chi-square statistic is 2.197 and the p-value is .138 (p = .138). As the p-value is larger than the significance level (.05), there is not enough evidence to conclude that the two variables are associated. Therefore, the null hypothesis (H0) stating that there is no relationship between gender and teachers' attitudes towards the use of ICT is supported and reinforced.

Table 3: Availability for use of ICT tools in schools

Crosstab Count		Yes	No	Total
	Male	21	28	49
	Female	8	17	25
Total		29	45	74

When asked if they think ICT tools are available in their schools, 21 (n=21) male teacher-respondents assume that ICT tools are available in their schools as table 2 above shows that, whereas only 8 (n=8) female teachers adopt the same view. The table above also shows that 28 (n=28) of the male respondents admit that ICT are not available in schools and 17 (=17) female- participants hold the same view.

Table 4: Chi-Square test for association between Gender and availability of ICT for use

Chi-Square Tests	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.819 ^a	1	.366		
Continuity Correction ^b	.427	1	.514		
Likelihood Ratio	.830	1	.362		
N of Valid Cases	74				

A chi-square test of independence was performed to examine the relationship between gender and the ICT tools availability in the EFL classroom in Moroccan state schools. As the results show, the Pearson chi-square statistics is .819^a and the p-value is .366 (p = .366). The

likelihood chi-square statistic, as table 4 above illustrates, equals .830 and the p-value is .362 (p = .362). As the p-value is larger than the significance level (.05), there is not enough evidence to conclude that the two variables are associated. Therefore, the null hypothesis (H0) stating that there is no relationship between the two variables is reinforced.

Table 5: Teachers' attitudes towards the use of ICT as a medium of instruction in Moroccan secondary schools

Crosstab Count		Yes	No	Total
	Male	42	7	49
	Female	23	2	25
Total		65	9	74

With regard to whether ICT can be used as a medium of instruction, the results show that 42 (n = 42) of males and 23 (n = 23) of females among our respondents think that ICT can be a medium of instruction in Moroccan secondary schools and teachers should not always rely on as the coursebook as a traditional teaching resource.

Table 6: Chi-Square test for association between gender and the use of ICT as a medium of instruction

Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.612 ^a	1	.434		
Continuity Correction ^b	.165	1	.684		
Likelihood Ratio	.651	1	.420		
Fisher's Exact Test	.651			.709	.354

The statistical output for ICT being a better medium of instruction in Moroccan state schools than the coursebook shows no association between the two variables. The Pearson chi-square statistics is .612^a and the p-value is .434 (p = .434). The likelihood chi-square statistic equals .651 and the p-value is .420 (p = .420). As the p-value is larger than the significance level (.05), there is not enough evidence to conclude that the two variables are associated. Therefore, the alternative hypothesis is rejected and the null hypothesis (H0) stating that there is no relationship between the two variables is reinforced instead.

Table 7: ICTs as advanced instructional tools in teaching English as a EFL in Moroccan Schools with respect to teachers' gender

Crosstab Count		Yes	No	Total
	Male	43	6	49
	Female	20	5	25
Total		63	11	74

Table 4 above shows that 43 male (n = 43) and 20 female-participants (n = 20) state that ICTs can be used as advanced instructional tools in teaching English in the EFL classroom in Morocco.

Table 8: Chi-Square test for association between gender and the use of ICT as an advanced instructional tool

Chi-Square Tests	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.787 ^a	1	.375		
Continuity Correction ^b	.293	1	.588		
Likelihood Ratio	.759	1	.384		
N of Valid Cases	74				

In our statistical results, as the table above illustrates, the Pearson chi-square statistic is .787^a and the p-value is .375

(p = .375). Moreover, the likelihood chi-square statistic is .759 and the p-value is .384 (p = .384). Based on this statistical output, the null hypothesis (H0) stating that there is no relationship between gender and ICTs with regard to their being advanced instructional tools and English language teaching is reinforced and the alternative hypothesis that the two variables are associated is rejected given that the p-value is greater than the significance level (.05).

Table 9: Teachers' assumption on the effectiveness of ICT in teaching and learning EFL in Morocco.

Crosstab Count		Yes	No	Total
	Male	21	28	49
	Female	12	13	25
Total		33	41	74

The results illustrate that 21 of the male-respondents (n = 21) and 12 females (n = 12) report that ICTs are more effective for teaching and learning than books whereas 28 (n = 28) of males and 13 (n = 13) of the respondents state that ICTs are less effective.

Table 10: Chi-Square test for association between gender and the effectiveness of ICT in teaching and learning EFL in Morocco

Chi-Square Tests	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.177 ^a	1	.674		
Continuity Correction ^b	.030	1	.862		
Likelihood Ratio	.177	1	.674		
N of Valid Cases	74				

The statistical output for the ICT being more effective for teaching than books in the EFL classroom in Morocco illustrates that the two variables are not associated. The Pearson chi-square statistics is .177^a and the p-value is .674 (p = .674). The likelihood chi-square statistic equals .177 and the p-value is .674 (p = .674). As the p-value is larger than the significance level (.05), there is not enough evidence to conclude that the use of ICTs for effective teaching and the gender variable are associated. Therefore, the alternative hypothesis is rejected and the null hypothesis (H0) stating that there is no relationship between the two variables is reinforced.

Table 11: Gender and the integration of ICT in EFL classrooms to promote learning.

Crosstab Count		Yes	No	Total
	Male	49	0	49
	Female	24	1	25
Total		73	1	74

The results, as table 6 above shows, illustrate that 99 % of the respondents (49 of the males (n = 49) and 24 females (n = 24) state that the integration of ICTs in EFL classrooms promotes learning whereas only 1 female respondent (n = 1) state that the integration of ICTs in EFL classrooms does not promote learning.

Table 12: Chi-Square test for association between gender and ICT to promote learning

Chi-Square Tests	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.987 ^a	1	.159		
Continuity Correction ^b	.119	1	.730		
Likelihood Ratio	2.197	1	.138		
N of Valid Cases	74				

In our statistical results, as table 7 above illustrates, the Pearson chi-square statistic is 1.987^a and the p-value is .159 ($p = .159$). Moreover, the likelihood chi-square statistic is 2.197 and the p-value is .138 ($p = .138$). Based on this statistical output, the null hypothesis (H0) stating that there is no relationship between the integration of ICTs in learning and EFL learning promotion is reinforced and the alternative hypothesis stating that the two variables are associated is rejected as the p-value is greater than the significance level i.e (.05).

Table 13: Accessibility for use of ICT tools for EFL teachers in schools in Morocco.

Crosstab Count		Yes	No	Total
	Male	14	35	49
	Female	3	22	25
Total		17	57	74

The results illustrate, as the table above shows, that the majority of respondents do not have access to ICT material as 14 of males ($n = 14$) and 3 of females ($n = 3$) report that ICTs tools are accessible for use for EFL teachers in their schools; whereas 35 ($n = 35$) of the male respondents and 22 ($n = 22$) of females state that ICT materials are not accessible for use for all EFL teachers.

Table 14: Chi-Square test for association between Gender and accessibility of ICT tools for EFL teachers in Morocco

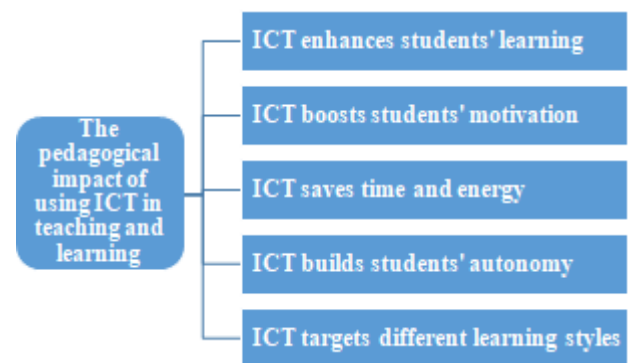
Chi-Square Tests	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.569 ^a	1	.109		
Continuity Correction ^b	1.718	1	.190		
Likelihood Ratio	2.788	1	.095		
N of Valid Cases	74				

Concerning the accessibility of ICT tools for use for EFL teachers, the statistical output shows that the gender variable does not relate to the accessibility of ICT for use. The Pearson chi-square statistics is 2.569^a and the p-value is .109 ($p = .109$). The likelihood chi-square statistic equals 2.788 and the p-value is .095 ($p = .095$). As the p-value is larger than the significance level (.05), there is not enough evidence to conclude that the gender variable and ICT tools accessibility to use among EFL teachers are associated. Consequently, the alternative hypothesis is rejected and the null hypothesis (H0) stating that there is no relationship between the two variables is reinforced.

5.2 Investigating teachers' attitudes towards the use of ICT and Potential Challenges

As it was stated before in this paper, the main research instrument was the questionnaire and SPSS was the standalone tool to assess the correlation between the gender variable and the use of ICT among teachers of English as a foreign language in Morocco (TEFL); whereas to examine and explore the attitudes that teachers hold and the challenges they encounter in using ICTs, data were qualitatively analyzed and classified. It was highlighted before that the integration of ICT into the language classroom continues to transform learning and teaching alike. The qualitative aspect of this study seeks to address and explore EFL teachers' perceptions and the potential barriers teachers face in integrating ICT in their teaching. The views expressed by teacher-respondents were categorized under the two main themes: the pedagogical impact of ICT use on teaching and learning, from which two sub-themes emerge. They include the effects on teachers' practices and on students' learning. The themes that emerge from data with regard to challenges teachers face in integrating ICT in their teaching include mainly, lack of continuing professional development opportunities, technical problems, teachers' experience, access to equipment and availability of 'multimedia rooms' in addition to other challenges that respondents assume to be personal such as reticence and reluctance to use technology in their classrooms.

5.3 Pedagogical impacts of ICT use on teaching and learning



The figure above illustrates the pedagogical impact of integrating ICT in the EFL classroom in Morocco on teachers and learners alike. The results, as indicated above, showed that teachers generally hold a positive attitude towards the integration of ICT in their teaching practice. In addition to increasing teachers' confidence, the research findings displayed that the integration of new technologies in the EFL classroom in Morocco added enthusiasm and excitement to teachers. Most teacher-respondents believe that the use of ICT as an educational tool enhances students' learning and boost their motivation. With regard to enhancing students' motivation, the following findings could be considered appropriate to foster the positive impact ICT has on teachers and learners. The graph below illustrates the extent to which ICT promotes students' learning and facilitates teaching.

ICT promotes students' learning

- - increases students' motivation and engagement
- makes students eager to learn
- facilitates learning
- enhances communication
- boosts learning
- allows opportunities for active learning
- makes students independent
- helps students learn faster and with much enthusiasm
- helps students become autonomous learners
- promotes students' soft skills

ICT facilitates teaching

- - helps in supplementing and simplifying materials
- saves time and effort
- helps in catching students' attention
- simplifies implementing various tasks
- reinforces the existing pedagogical practices
- helps teachers become innovative in teaching
- caters for learners' different styles and needs
- ICT is user-friendly and productive
- fosters collaboration between teachers and students

The majority of teacher-respondents in this study, regardless of their gender, reported that ICT benefits both teachers and learners on different levels. As the findings above illustrate, ICT use is thought to promote learning, enhance students' autonomy and allow them a wide range of opportunities to learn faster and with much enthusiasm. Similarly, the findings in this study showed that ICT is also considered to be beneficial for teachers as it helps them save time and energy and supplement the existing materials to meet the needs of their students and to equally cater for learners' different styles. ICT, according to almost all teachers who participated in this study, admitted that ICT has become a valuable instructional medium which has an impact on the students' performance and the teachers' teaching practices. They found that these innovative tools enabled them to save time and effort in delivering content. Additionally, the majority of teacher-respondents believed that ICT fostered productivity and increased noticeable collaboration between teachers and their students. In line with this, a teacher put it forward and wrote that :

' appropriate use of ICT in teaching has the power to transform the whole teaching/learning processes leading to a paradigm shift in both content and teaching methodology. It can offer the opportunity for more student-centered teaching. It also has the potential to transcend the barrier of space. It can also give a greater exposure to vocational and workforce skills for students. Additionally, these days, most students are computer savvy and digitally literate ; therefore, they possess the desired competencies to use ICTs effectively. From personal experience, I can say that I notice how ICT generally creates greater enthusiasm and excitement for learning within classrooms in our schools in Morocco '.

From this quote, we can easily decipher teachers' awareness to the great impact of ICT use in the EFL classroom, which corroborates with the review of literature.

Another respondent stated that :

'the use of ICT is important in teaching because it gives teachers the opportunity to have easy access to an array of unlimited new and valuable teaching resources that would meet their students' needs. In addition, ICT is important to students since they are now used to using different tech tools in their everyday life, and using technology in the classroom would be an incentive to them to learn. '

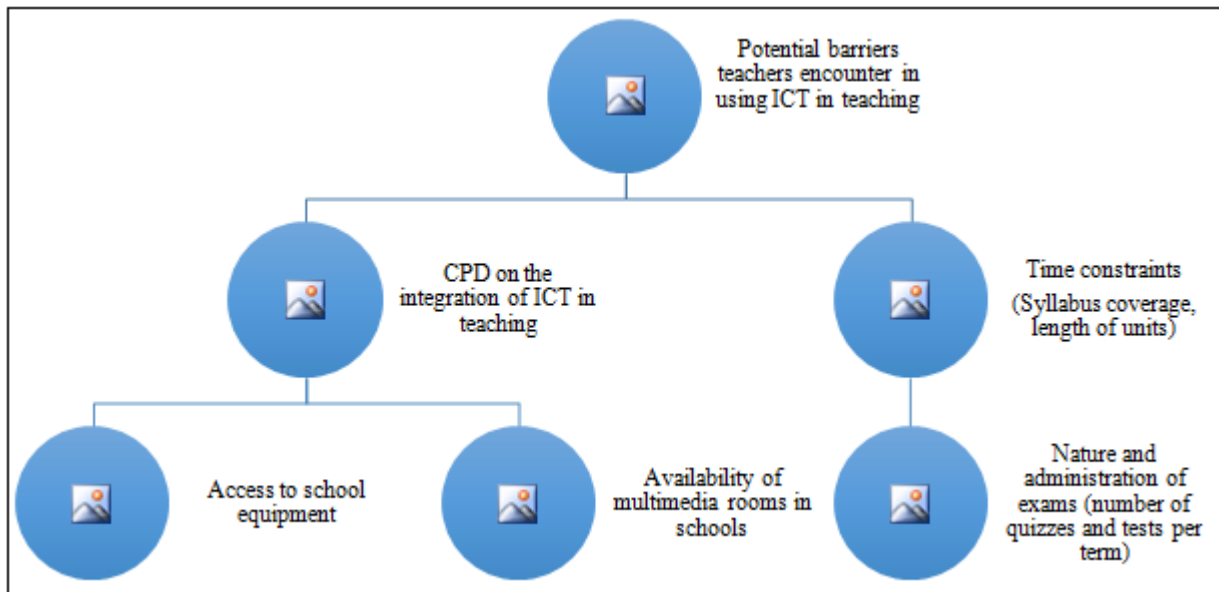
The same teacher-respondent added that :

'Using the ICT in the realm of teaching is a must an effective instrument due to several reasons. Firstly, it facilitates the process of learning and teaching in terms of time management. Secondly, it makes students spare more attention span on the taught material. Last, it reduces burden of workload like hard copies '.

From these quotes, it seems sound to highlight the so many perceived benefits to integrating ICT into educational practice for both teachers and students as a motivational tool in the EFL classroom.

However, respondents acknowledged that they encountered significantly potential barriers while using ICT in their classrooms. Although teachers claimed that the integration of ICT in the EFL classroom has positively impacted and highly contributed to the quality of learning and teaching in Moroccan state schools, they still admitted that they encountered various challenges and barriers in using these technological tools. They all perceived that many of these challenges ought to be addressed for further learning enhancement and quality assurance. The findings in this study revealed that more work be done as far as equipment and infrastructure in schools are concerned. All the teachers that took part in this study assumed that without providing schools with high quality computers, video projectors and smart boards, both short and long term educational goals related to the integration of ICT in teaching would be at stake.

Teachers also reported that even if they hold positive beliefs and perceptions towards the integration and use of ICT in their teaching, they still contended that a number of factors impeded a greater and a pedagogically appropriate integration. These factors relate to the teachers' training on how to use these technologies in teaching, time constraints and the nature and administration of exams in addition to access to equipment and availability of multimedia rooms in schools as shown below.



5.4. Barriers related to continuing professional development (CPD)

When asked about the potential barriers that impede the integration and use of ICT in their teaching, almost all teacher-respondents pointed out that the main obstacles they face in their EFL classroom were lack of continuing professional development sessions that focus on the integration of new technologies in their teaching practices.

Most of the teachers that took part in this research highlighted the fact that supervisors and trainers do not address this issue in their trainings. In line with this a female-teacher participant put it forward that

“that supervisors unfortunately always focus on the teaching of the four skills during in-service training sessions and they never address the issue of ICT”.

The same participant added that *“I had paid for almost all the trainings I had benefited from with the exception of a seminar on the integration of ICT organized by MATE and one week training organized by the British Council and all these opportunities were the fruit of my personal pursuit and I had to pay participation fees to attend these seminars”.*

This shows that teachers, especially novice ones, should have training opportunities that meet their needs, *“which questions whether in-service trainings undergo a needs-analysis phase or not”*, according to a participant. Participants in this study strongly recommended that despite the Ministry’s will to implement the use of ICT in schools with the provision of specialized teachers in this subject, the reality is still far beyond the expected outcomes with respect to the quality and the frequency of trainings.

What most teachers required was a systematic and sustainable organization of training sessions that should focus on pedagogical matters related to technology and not simply the use of ICT. All teachers in this study reported that they were of the opinion that ICT should be pedagogically addressed to supplement and complement the content of the textbook to prepare the students for their

exams and they all stressed that all this could be achievable with planning and organizing training sessions throughout the school year. They (teachers), also all expressed an imminent need for more training on the integration of ICT in the EFL classroom to pedagogically meet the expected outcomes for a better use and the expected goals of the ministry to sustain the use of new technologies to back-up teachers’ daily routines in their classrooms to benefit their learners. Teachers in this study all admitted the great job done by NGOs such as MATE in organizing regular trainings and seminars that both local and international teachers benefit from.

5.5 Access to School Equipment

With regard to the access to school equipment, most respondents in this study expressed their dissatisfaction on this issue. They all reported that they found it almost impossible to get access to the school technical equipment and this was mainly due to the principals’ misconception on how to manage the school equipment among all teachers. A teacher noted that :

“principals should be trained on how to deal with ict materials in their schools because” he added *“most principals in our schools totally forbid access to technical equipment and leave it unusable until it is damaged and no longer useful”.*

The following quotes from participants all showed that officials’ will mismatches reality :

‘...not all teachers have access to ICT tools. For example, in lmy school there is only one data show for more than thirty teachers’

“...there aren’t enough ICT tools in the school where I work”

“.... although the ministry has given more importance to the use of new technologies to teach students, unfortunately our school does not have enough ICT tools . Every teacher hinds himself/herself obliged to buy his/her own material from

their own money. One or two data shows can not in any way be shared with the whole school''

''... ICT tools are not accessible and the school head does not allow everyone to have access to them''

'' There are limited ICT tools in my school though it's a government-funded public school. Yes, access is very limited and even if you have access to them, there is no wi-fi, no computers, one data show for twelve teachers and more than 40 students in one class. These circumstances are very discouraging for ICT implementation...you would be fortunate if you can teach two classes using ICT in one semester''.

From all these quotes, one can point out that teachers shared a common view on the importance of the integration of ICT in their EFL classrooms, but they similarly reported that access to ICT tools available in their schools is among the key issues that officials should reconsider for a better implementation to benefit the learner and encourage teachers to appropriately use these tools. They (participants) all expressed their dissatisfaction about the quality of ICT tools and the way they are managed by administrations in schools. Some teachers complained about the unprofessional and inadequate communication between different stakeholders in schools to the extent that very often teachers are lost and can not identify the person in the best position to help them access school equipment.

The scope of this paper does not allow us to seek evidence on the existing pedagogical relationship between teachers and heads and how it impedes the expected usefulness of the integration of ICT in state schools in Morocco according to a few respondents.

5.6 Availability of Multimedia rooms

Another issue that showed most participants' dissatisfaction and negative perception with respect to the use of ICT in the EFL classroom was the unavailability of multimedia rooms in schools. Most teachers expressed an urgent need to renew or build specialized rooms and computer labs for a correct functioning and a sound integration of new technologies in schools.

Inconsistent with the review of literature, this study revealed that, according to the majority of participants, schools no longer have specialized computer rooms due to the increasing number of students. School heads still misconceive the role and importance of these rooms and transform them to ordinary rooms to fit the increasing large numbers of students and the badly anticipated pedagogical mapping of the years ahead. A good example for the uncalculated and unexpected increase in numbers of students is the current school year (2020-2021) which has been characterized by distance learning due to the COVID-19 pandemic. This has alarmingly affected the quality of distant learning on students' achievement. It was declared that about 140 thousands students quit private schools against 52000 the year before to get a seat in public schools, according to the Minister of Education during a session with the Education, Culture and Communication Committee at the House of the Representatives. The Minister stressed that

the increase was mainly due to the closure of 68 private schools after the COVID-19 crisis. This posed a huge problem for so many public schools that had to reconsider their pedagogical structure in order to meet the requirements of this very particular year.

5.7. Time Constraints

In addition to the previously stated barriers that teachers of English encounter in the incorporation and the integration of ICT in their teaching, almost all the participants in this study (96%), regardless of their gender, highlighted the issue of time constraints to ensure a smooth and appropriate integration. According to teacher-participants in this study, despite their awareness of the various potentials ICT can offer to help them, they all uttered that lack of time poses a real problem for them to incorporate ICT in their EFL classrooms. They (participants) reiterated the load of content to be covered during each semester and the syllabus the students will have to be examined locally in their continuous assessment or nationally in the national standardized examination that all students have to sit for according to the Ministry's recommendations, the pedagogical guidelines and the exam specifications. To this end, teachers' misconception about the use of ICT for wasting time might be alloted to their lack of training on how to incorporate technology in implementing the content of the coursebook into their lessons. They seem to concentrate more on the syllabus, exercises and practices believing that, this way, they would appropriately prepare their students for the exam. In this respect one male-respondent aged 27 voiced his thoughts and said that :

''...due to time constraints I prefer the chalk and talk approach rather than using technology in my classroom. So, I think that implementing ICT tools in my English classroom would always be ineffective because I wouldn't certainly have enough time to finish all the ten units I have to cover in the syllabus in each semester and if my supervisor knows that I failed to cover all these units, I will get into administrative problems ; so this is the reason why most of my colleagues especially experienced and old teachers advise us novice ones to do and to follow traditional forms which have proven to be more effective.''

In line with the same barrier (time constraint), another participant stressed the following :

''I could never use computers in class. Maybe should young people learn about it. We are too old to learn about these new tools and use them in our teaching. The only thing we were trained in were using traditional methods to deliver content in our classrooms. I personally think that implementing ICT would not fit the load of content the students have to learn in class. Add to that, some parents think that if a teacher does not focus on the textbook, he is wasting their children's time''.

Another respondent equally highlighted that using ICT with too many classes might not fully fit the pedagogical purpose of the implementation of these technologies in their classrooms. To put it further, he said:

"I'm teaching 7 science stream students' classes. I think, using ICT and changing the mode of delivery of content will take me the whole day in addition to behavioural problems. Without training and without having enough free time and reducing the load of content in the syllabus, the use of ICT might not meet its objectives...They old enough and they need to prepare themselves for examinations instead."

According to another participant and aligned with the previous views, an other respondent claimed the following:

"...I used to change the mode and pattern of my teaching using ICT in my classroom very often but this made it impossible for me to finish my syllabus. That's why, I completely believe that the use of ICT makes teachers waste their learners' time. Teaching students properly and appropriately requires extra-time frame which teachers do not have especially with science stream students who have only three sessions per week"

These barriers related to time constraint corroborate with the findings highlighted in the review of literature and especially a study conducted by Abuhmaid (2011). In his study, he found that the teachers were overloaded with the content they had to cover and they could not cope with the pressure to ensure a pedagogically appropriate ICT integration into lessons.

Lack of time remains one of the major factors that impede the teachers' integration of ICT into the EFL classroom. Almost all the participants in this research stated that lack of time was a major obstacle they face to fully and appropriately integrate ICT in the classrooms. They felt that they still needed more time to plan, supplement and ensure a sustainable integration of ICT into their teaching practice. The utmost goal they were extremely busy to achieve was to cover the pre-set number of units they are provided with in the coursebook.

According to Dang (2011, Cited in Kumatha.R and Hamidat.Y 2016), the lesson preparation using ICT is time consuming because it requires a lot of time to prepare and to conduct it. This aligns with what teachers expressed in this study. They all stressed the need of additional time to set up all the ICT tools in the classrooms, which turns to be worse if a teacher works with more than a single class per day. In this regard, Kozma et al. (2004, cited in Kumatha.R and Hamidat.Y 2016) claimed that the biggest barriers to the use and incorporation of ICT in the EFL classroom were the lack of time available for both teachers and students. This corroborates with the findings with this study, which state that EFL teachers in Morocco complain about the length of units and the content to be covered per semester according to the pedagogical guidelines. Also, the students express a noticeable discomfort with respect to the number of units and the various topics they should be familiar with to successfully sit for their examinations. This might actually be attributed to the nature and type of exams the students take in Moroccan schools.

6. Discussion

ICT integration in the EFL classroom guarantees a

comprehensive process of implementing technology for the betterment and improvement of both teaching and learning. However, one should highlight that its success does not only depend on the degree of availability, but also on the pedagogical intent of teachers and the expected outcomes. This way, teachers are very much aware of the importance of supplementing and complementing the content of the existing syllabi through the incorporation of ICT in teachers' practices. This will depend very much of the teachers' training, their confidence in adopting innovative tools in their classrooms and also their competence in the use of ICT. All these factors pave the ground for new approaches to be adopted in the digitalized classroom to meet the pedagogical requirements of the digital era. The incorporation of technology has become an urgent need expressed by teachers during the COVID-19 pandemic whereby remote and distance learning has become more than a choice but a necessity. However, ICTs should be used currently in conjunction with well planned and appropriate classroom design in stead of effort-saving. The successfully adopted integration of ICTs into the classroom requires careful planning and depends fully on how well ministry officials welcome and truly understand the dynamics of such integration. This was a key element in the reforms adopted by the Ministry of National Education which has given a high importance to the integration of ICTs in education (The strategic Vision, 2015-2030). Proponents of ICT integration in the EFL classroom are convinced that, if properly integrated, these technologies might potentially enhance the teaching and learning (Commission of the European Communities, 2001; Hepp, Hinostrroza, Laval, & Rehbein, 2004; Kozma & Wagner, 2003; Pelgrum & Law, 2003; UNESCO, 2003 ; Soussi, 2015).

Taking all what teachers, in this study, uttered, we may not venture to say that they showed a lot of capacity in planning and organizing their teaching environment in non-traditional ways by incorporating innovative approaches. The key success of ICT implementation, according to teacher-participants, requires sustained training, motivation and confidence. Though very few participants showed some resistance to change their teaching methods, the majority are aware of the wide range of advantages of ICT benefiting both teachers and students. The same targeted teacher-population in this study contend and assume what Smith, E.H claims about the usefulness and impact of computers on learners. He put it forward that "computers will not replace teachers, but teachers who use computers will, inevitably, replace teachers who do not". What matters most for the participants of this study is that there are still few teachers who resist to change and still believe in the traditional methods and fail to accept the innovative changes and the core principles of the new approaches to develop their teaching methods to meet the needs of the 21st century learner.

The positive beliefs and perceptions of EFL teachers towards ICT in teaching and learning are key to the successful implementation of new technologies in the EFL classroom in Morocco. While the vast majority of the participant-teachers in this study hold a positive attitude to incorporate and integrate ICT into their teaching practice, there is research evidence that the effectiveness and efficacy

of this integration to achieve the intended results depends on teachers' training, their confidence to use new technology and to a large extent on teachers' willingness to integrate ICT in their classrooms as there still exist some teachers who resist to change and support the idea of adopting traditional methods in their teaching. It should be noted that these outdated methods fail to address the learner as a central element in the teaching/learning operation. Whereas, innovative approaches that incorporate new technologies put the learner at the center of the teaching environment. This student-centredness is reported by participants to be achieved through designing activities and tasks that meet the students' needs and suits their learning outcomes. Teachers, according to this study, claimed that the integration of ICT in the EFL classroom has tremendously contributed to the quality of teaching and learning in Moroccan state schools.

However, teacher-participants still admitted that they encountered various challenges and barriers that impede a successful use and a greater incorporation of ICT in their teaching. These barriers include lack of training, experience, technical problems, access to equipment and the availability of multimedia rooms in schools.

The most pervasive conclusion that can be drawn from the findings of the present study is that although teachers hold positive stands with respect to the integration of new technologies, they still report that efforts from Ministry officials are required to equip schools with e-learning tools and build or renew existing multimedia rooms to ensure a good use of technology in the EFL classroom for a wise implementation of the various circulars that all insist that teachers should be digitally literate to cope with the challenges of this new era. According to teachers' responses, we may deduce that rethinking the use of ICT in EFL classrooms is a pre-requisite to overcome any potential barriers and to achieve a quality teaching and learning that would benefit both teachers and learners and, therefore, meet the objectives of the Ministry's vision in this regard.

7. Summary

Information and communication technology plays a critical role in improving teaching and learning in different forms and levels and understanding gender impact on teachers' awareness and usage of ICT as a teaching tool can lead to better use of this technology in the EFL classroom in Morocco. The present study addressed three research questions. The first one sought research evidence on the participants' attitudes towards the use of ICT in EFL classrooms in Morocco. Research question two focused on the challenges and potential barriers participants encounter in the use of ICT. The third research question sought research evidence on whether gender determined participants' attitudes towards the use of new technologies in their teaching. To put it differently, the last question examined whether gender as a person-specific element best explains the dependent variable (i.e ICT use). The findings in the current study confirmed that gender as an independent variable affect participants' attitudes towards the use and integration of ICT in their teaching. The first conclusion that can be driven from this research study is that participants actually hold a positive attitude towards using ICT in their

teaching in the Moroccan EFL classroom despite the various challenges that they verbalized in their responses. The quantitative and qualitative exploration converge in the participants' interpretations which are not only related to their gender characteristic but to other demographic variables which are far beyond the scope of this research study. The findings in the current study corroborates with previous existing studies (Tanweer, M 2011 cited in Soussi. K 2015 ; Ali, A 2008).

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