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# **EFL Teaching and Technology Acceptance: Use and Gratification Paradigm**

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**ABSTRACT:** Far from being a projection for the future, the use of Information and Communication Technologies (ICTs) for educational ends is today a commonplace reality. The exploitation of internet-based applications is part and parcel of the teaching endeavors within and across instructional settings. In the EFL teaching setting, teachers are expected to maximize the effective and efficient usage of various technological tools to ease the learners' elaboration of the target language-related skills. However, findings from recent research point to the substantial discrepancies among EFL teachers in terms of technology acceptance. Teachers range from technology espousers, through technology evaders to technology drop-outs. Against this background, this paper seeks to examine the Moroccan private high school teachers' stance toward the espousal of ICTs in teaching practice. Using the Technology Acceptance Model (TAM) devised by Davis (1989), this quantitative study is geared towards deciphering the Moroccan private high school teachers' readiness to espouse technology and, ultimately, step away from the traditional, pen-and-paper-bound style. The study reveals that Moroccan high school teachers subscribe to the idea that ICT implementation is a warranty for reaching an optimal level of quality in EFL teaching, but they remain apprehensive and reluctant about an immediate buy-in of ICTs for subjective and objective reasons.

KEYWORDS: ICT/EFL teaching/ Morocco/ secondary education/ technology acceptance

#### INTRODUCTION

There is a conspicuous scholarly consensus on the prevalence of information and communication technologies within and across sectors (Keefe, 2007; Taylor, 2001). In the educational sector, there is an unequivocal propensity towards the implementation of technology-friendly educational systems. This tendency has captured the interest of researchers who have tried to examine this phenomenon from diverse perspectives both in western and non-western contexts (Ciroma, 2014; Watts-Taffe et al., 2003; Noor-Ul-Amin, 2003).

Learning-wise, technology has eased access to information and knowledge and has substantially lessened the learners' dependence on the teacher as the prime contributor to the educational undertaking. In their quality as "digital-natives", modern learners are endowed with technology-bound skills that make them autonomous, self-dependent pedagogical actors. Canuel (2011) perceives this technology-friendliness as an educational asset that should favor ICT espousal in education: "if education is meant to prepare these children for their world, use of technology must become the norm in our classrooms and schools."

However, an all buy-in of ICTs in education is to be handled with maximum attentiveness and caution. According to Levin and Wadmany (2008), the implementation of ICTs in education is a complex and procedural endeavor, which is underpinned by numerous factors such as the user's profile, the context of use, and the educational system's pedagogical philosophies. These pre-requisites are, by scholarly consensus, must-consider parameters in the process of fluid, smooth and efficient implementation of ICTs in education (Granger et al., 2002; Teo, 2009; Teo and van Schaik, 2009).

Within this vein, the purpose of this paper is to sift the Moroccan EFL teachers' stance toward the use of ICT in teaching. Several pertaining variables are addressed, namely the kinds of ICT resources used, how they are applied, and the factors that are likely to thwart an effective and efficient use of ICT for educational purposes. Technology Acceptance Model is used as a theoretical backup to come to grips with the veracity of Moroccan EFL teachers' readiness to endorse the ICT-based mode of teaching. This study is innovative in the sense that it provides insights from the Moroccan context to the body of knowledge on ICT use in teaching English as a foreign language. Besides, most of the studies that used the Technology Acceptance Model focused solely on voluntary settings, with little regard for mandatory settings (Chuttur, 2009). Exclusively, this study is conducted within mandatory settings -private schools in Morocco.

#### 1. Information Communication Technology: Overview.

Information Communication Technology (henceforth ICT) has been circumscribed with a myriad of definitions, depending on the context of use. In the field of pedagogy, scholars subscribe to the definition of ICT as an educational tool that can be software (Microsoft Word, PowerPoint, or else), hardware (laptops, projectors, cameras, or data logging equipment), and software applications (generic software, multimedia resources, etc.).

Correspondingly, Asabere and Enguah (2012) consider ICT as the tools, facilities, processes, and equipment that permit the generation, transmission, processing, storing, and dissemination of information in all forms, including audio, text, data, images, and videos. In the same way, Blurton (1999) conceives ICT as a diverse set of technological tools and resources used for the creation, communication, dissemination, storage, and management of information. What transpires from these scholarly considerations is that ICT is an umbrella term encompassing different user devices and utilities. Hereafter, the term ICT refers to both hardware devices and software applications utilized for educational ends.

#### 1.1. ICT and Education

Educational researchers vouch for the premise that ICT use in education benefits not only teachers but also, and most importantly, learners. Teachers, according to Ciroma (2014), have recourse to ICT to explain complex concepts, install interactive classes, and involve the learners in the whole pedagogical endeavor. In education, the major benefit of ICT is its potential to guarantee quality teaching and learning. Despite its widely recognized utility, ICT has not been invariably viewed by teachers as a panacea for educational efficiency.

#### 1.2. ICT and the Teachers' Stance

The attitudes of teachers towards ICT implementation have historically ranged from technology-espousers, through technology-reticent to technology-drop-outs. These discrepant attitudes start to pass out of the scene, especially in the rise of the third millennium. Hennessy et al. (2010) concur on teachers' adherence to ICT utility in promoting quality education in the twenty-first century. Likewise, Hunde and Tacconi (2013) assert that the internet constitutes a priceless source of data for both teachers and learners. They go on to say that technology has led to a drastic reconsideration of the teacher/student power relationship. Thanks to ICT, learners have turned into real pedagogical actors, causing the teacher's role to get restricted to advising, counseling, and monitoring. The learners' ICT-bound know-how has gone uncontested even by the most conventional teachers. Shan Fu (2013) points out that teachers in the twenty-first century are called to rethink their pedagogical practices and apply learner-oriented approaches underpinned by addressing learners on a power-equal basis. Gone should be the days when the teacher was the all-pervasive figure in the educational setting. It would be foolhardy, however, to assume that the implementation of ICT in education is a challenge-free endeavor.

#### 1.3. ICT Espousal and Related Challenges

It is noteworthy that ICT endorsement is not an all-rest undertaking for teachers. These latter are up to a myriad of challenges that they should work diligently to come over. Teachers may not be technology-empowered enough, which may hinder their choice of the materials that best meet the learners' needs. Similarly, teachers might lack the technical expertise which can help them use ICT in emancipated, user-friendly ways. Not least, the schools may be technologically ill-equipped, which may potentially hamper any genuine attempt to digitalize the teaching/learning practice.

Several scholars, namely Livingston and Condie (2006); Kuo (2008), have tapped into the issue of teachers' attitudes towards ICT as a means of fostering high-quality educational input/output. These scholars pledge for the ethos that psychological readiness and attitudinal positivity are key factors in boosting teachers' self-efficacy in terms of technology adoption and use. On a related level, the teachers' motivation for ICT implementation has received substantial scholarly attention. Scrimshaw (2004) specifies that the factors affecting teachers' motivation are two-fold: educator-bound and school-related. At the educator's level, providing educators with training on the latest educational technologies, maintaining their confidence relating to ICT implementation, and dissipating their probable anxiety and fear of technology are key parameters in promoting their motivation about getting involved in educational programs geared toward installing ICT-based teaching action plans. At the school level, the decision-makers need to be fully aware of the fact that calling for ICT endorsement is not a cost-free journey. Getting teachers motivated goes through putting in place necessary and costly logistics, on-site technical support, thoughtful ICT-bound action plans, etc.

In light of this review, it turns out that ICT has considerably affected the educational undertaking. The teacher, who is traditionally viewed as the main purveyor of knowledge, is advocated to seek the support of technology. Academically and scientifically recognized websites can be sources for limitless, purposeful teaching materials. Teachers are, therefore, solicited to nurture positive attitudes and keen motivation for ICT acceptance and use. Efficient, proactive and meaningful integration of ICT in teaching goes equally through setting a clear vision and providing the required human and material resources.

#### 2. From Description to Prescription: The Import of Technology Models

Over the years, scholars have devised a wide range of theoretical models pertaining to technology use in education. Far from being solely descriptive, these models are mostly prescriptive in essence in the sense that they prescribe pathways for installing ICT-friendly and learning-rich models oriented towards optimizing the use of technology in education. These theoretical models include but are not limited to, the Theory of Reasoned Action (TRA), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technology Acceptance Model, which is the locus of this study. The Technology Acceptance Model (TAM) puts forth parameters that serve the target of this investigation in terms of ICT use and gratification.

#### 2.1. The Technology Acceptance Model

Davis (1989) elaborated the TAM model with the view to probing the parameters at stake regarding technology acceptance. Scholars, such as Teo (2010), uphold the instrumentality of the model in examining users' stances towards technology. Davis (1989) proposes a four-layered, overlapping model that includes: (1) Perceived Ease of Use (PEoU), (2) Perceived Usefulness (PU), (3) Attitude Toward Using (ATT), and (4) Behavioral Intention to Use (BI).

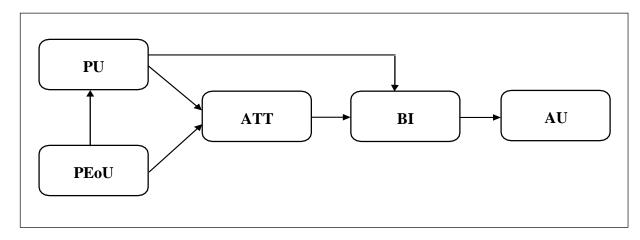
The first layer, PEoU, addresses the easiness with which technology is used. In the context of this study, Perceived Ease of Use pertains to the teachers' degree of anxiety or relaxation when using ICT for teaching purposes. The second layer, PU, relates to the users' perception of technology as a medium for effective professional performance. This layer dovetails with the teachers' perception, be it favorable or unfavorable, of the utility of ICT in enhancing teaching performance. The third layer, ATT, focuses on the users' general attitudes towards technology. The fourth layer, BI, is behavioral in essence since it focuses on the future intention of users to go for or to step away from technology.

#### 2.2. TAM-related Delimitations

In this study, I seek to examine the teachers' attitudes towards ICT integration in teaching. The fourth layer, BI, related to the users' future intention to adopt technology as a professional behavior is not considered for the simple reason that the investigations revolve around actual, day-to-day use, rather than, future behavior. Obviously, the first three layers subjected to scrutiny in this study are tightly interlinked and unidirectional in the sense that they account for constructs relevant to technology's actual use by language practitioners. All the layers are submitted to analysis and probing except for, let us emphasize, behavioral intention (BI) so far as it does not fit, important though it is, within the scope of this study, which is actual use and gratifications obtained from ICT.

#### 2.3. Davis's (1989) TAM Model: A schematic representation

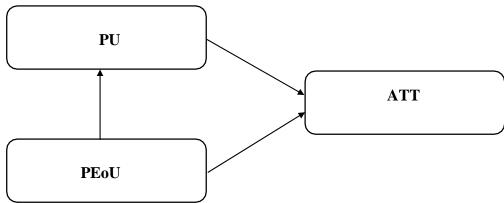
Figure1



# 3. Research Design

This study is quantitative in nature. Data are collected via a close-ended questionnaire, which is designed to explain the phenomenon of ICT use by analyzing the collected data and the related research constructs numerically through mathematical methods, particularly statistical analysis. The specific target of this study is to explore the different ICT tools used in ELT by EFL teachers, the frequency by which these tools are used, and whether or not their use is gratifying (attitudes towards ICT use). A reduced version of TAM is elaborated, and the relationship between the reduced TAM constructs, namely (PEoU), (PU), and (ATT) are examined, in parallel to probing the extent to which (PEoU) and (PU) influence (ATT), which variables are illustrated in the following reduced TAM model figure:

Figure 2: Reduced TAM



#### 3.1. Sampling

The participants in this study are chosen in tune with the simple random sampling procedure. Invariably, the participants are in-service EFL teachers at private high schools in the Marrakech Directorate of Education. According to the National Education and Vocational Training website, an aggregate number of 201 authorized private schools are located in the prefecture of Marrakech. A total of 50 schools out of the 201 were chosen randomly. For reasons ascribed to sheer bureaucracy, only 44 schools were accessible as sites for data collection. The overall number of participants is 51, each of whom received a close-ended questionnaire either printed, through the school's administration, or via email/WhatsApp. A release form, explaining the purpose of the study and reassuring participants about anonymity and privacy, was signed and turned in by practically every participant.

#### 3.2. Instrumentation

The questionnaire consists of two sections (Section A and Section B). Section A includes three parts. Part one elicits data having to do with the participants' demographics. The second part is devoted to eliciting, via a five-point Likert scale encompassing 19 items, the most frequently used ICT tools by the EFL teachers in focus. The third part is designed, using a five-point Likert scale of six items, to come to grips with the potential factors likely to obstruct ICT use in the EFL context.

Section B elicits TAM-related data, through a five-point Likert scale, with a particular focus on three subscales, namely Perceived Ease of Use (PEoU), Perceived Usefulness (PU), and Attitude Toward Using (ATT). (PEoU) consists of three items, (PU) includes four items, while (ATT) contains three items. The Items of (PU) and (PEoU) are adopted from Davis (1989), while (ATT) items are replicated from a study conducted by Abdul-Razak (2020).

#### 3.3. Data Collection Procedure

Data are collected in a hybrid mode. Printed questionnaires are administered in person, while a web-based version is designed to reach out (via e-mails) to participants who are not reachable in person. A total of 13 paper-based questionnaires and 38 web-based questionnaires are administered with an 86.4% return rate. Eleven questionnaires are turned in incomplete, and they are, therefore, not taken into account. Thus, forty participants are data providers, 32.5 percent are males and 67.5 percent are females. For the sake of convenience, a questionnaire could be duly completed within 10 minutes lapse of time. The time frame of the survey was from the 13th of May to the 5th of June, 2021.

#### 3.3.1. Research Questions

Two major research questions underpin this analysis:

Research Question1(RQ1): What are the potential barriers that thwart EFL teachers' use of ICT?

Research Question 2 (RQ2): What factors affect EFL teachers' attitudes and gratifications in terms of ICT espousal? In tune with the above major questions, two sub-questions emerge:

Sub-Questions (RSQs):

- (1) What ICT tools are used by EFL private teachers in Marrakech Directorate?
- (2) How frequently do they use these ICT tools?

#### 3.3.2. Research Hypotheses

The hypotheses encompass, in addition to the independent variables, three intertwined, dependent variables, namely ICT use, Attitudes towards ICT, and gratification by ICT, which variables are co-referred to as ICT espousal in the null hypothesis.

- H1: Lack of digital literacy affects EFL teachers' ICT use.
- H2: Time is a constraint that impedes EFL teachers' ICT use.

- H3: Lack of effective training impedes EFL teachers' ICT use.
- H4: Lack of motivation affects EFL teachers' attitudes towards ICT.
- H5: Lack of accessibility affects teachers' gratifications by ICT Null hypothesis:
- ICT espousal by EFL private high school teachers in Marrakech is triggered by none of the above independent variables.

#### 4. Data Analysis Procedures

The collected data are processed using two types of statistical analysis. A descriptive statistical analysis of section A of the questionnaire is conducted using the Statistical Package for the Social Sciences Software version 23 (SPSS), focusing on the frequency, percentage, mean, etc. Likewise, I adopt the statistical approach put forth by Anderson and Gerbing (1988) - a two-step analysis for Structural Equation Modelling (SEM). This approach is applied using AMOS version 23 to analyze section B of the questionnaire, which is devoted to the analysis of the correlation between reduced TAM constructs (PEoU, PU, ATT).

To ensure the reliability of the scales used in this study (ICT tools usage scale, barriers scale, and the three subscales PEoU, PU, and ATT in the reduced TAM), a reliability analysis is undertaken to evaluate the internal consistency of the items and questions used for each scale. This reliability analysis is conducted by calculating Cronbach's alpha coefficient, using SPSS.

#### 4.1. Data Analysis and Findings

**Table 1: Demographics** 

		N	Percent
Gender	Male	13	32.5%
	Female	27	67.5%
Age	19-25	6	15.0%
	26-32	18	45.0%
	33-39	11	27.5%
	40 and above	5	12.5%
Academic Qualifications	Bachelor's Degree	29	72.5%
	Master's Degree	10	25.0%
	PhD	1	2.5%
Teaching Experience	Less than 1 year	6	15.0%
	1-3 years	8	20.0%
	4-6 years	7	17.5%
	7 years and above	19	47.5%

As Table 1 displays, 67.5% of the participants are female EFL teachers (N = 27), while only 32.5% are male EFL teachers (N = 13). Age-wise, 45% of the participants are between 26 and 32 years old (N = 18), 27.5% are between 33 and 39 years old (N = 11), 15% are between 19 and 25 years old (N = 6), and 12.5% are 40years old and above (N = 5). At the level of education, the majority of the participants (72.5%) hold a Bachelor's Degree, 25% have a Master's Degree, and only one participant holds a Ph.D. At the level of career, (65%) of the participants have a teaching experience of more than four years.

#### 4.2. Reliability of the Scales

Field (2013) upholds that the term "reliability" refers to "whether an instrument can be interpreted consistently across different situations." The consistency of a scale is salient, and the reliability determines how the scale's items correlate with each other, and whether the scale produces similar results repeatedly. The internal consistency of an instrument is measured through Cronbach's alpha coefficient.

Table 2 illustrates the Cronbach's alpha coefficient for all the scales used to collect data via the questionnaire (see Appendix). The Cronbach's  $\alpha$  coefficients for the questionnaire's five scales produced internal consistency values greater than  $.700(\alpha=.848,.745,.939,.854,.843)$ , which indicates the reliability of the instrument used in this study.

Table 2: Discriminant Validity

ICT Tools Use Scale		Barriers Scale	PEoU scale	PU scale	ATT scale
Number of items	19	5	3	4	3
Cronbach's α	.848	.745	.939	.854	.843

#### 4.3. Level of ICT Use

The collected data seek to determine what ICT tools are used as well as their frequency of use by EFL teachers. Table 3 illustrates the frequency and percentage of each ICT resource usage.

 Table 3: ICT Tools Usage (Frequency and Percentage)

		Never	Rarely	Sometimes	Usually	Always
Laptop	N	0	0	4	8	28
	Percent	0.0%	0.0%	10.0%	20.0%	70.0%
Interactive Whiteboard	N	13	1	7	5	14
(IWB)	Percent	32.5%	2.5%	17.5%	12.5%	35.0%
IWB Software	N	11	1	8	8	12
	Percent	27.5%	2.5%	20.0%	20.0%	30.0%
Data Projector	N	4	0	3	6	27
	Percent	10.0%	0.0%	7.5%	15.0%	67.5%
Digital Camera	N	17	7	11	1	4
	Percent	42.5%	17.5%	27.5%	2.5%	10.0%
CD Player	N	10	4	5	5	16
	Percent	25.0%	10.0%	12.5%	12.5%	40.0%
Speakers	N	2	0	3	7	28
	Percent	5.0%	0.0%	7.5%	17.5%	70.0%
Desktop	N	5	2	10	7	16
	Percent	12.5%	5.0%	25.0%	17.5%	40.0%
		Never	Rarely	Sometimes	Usually	Always
Word Processors	N	4	1	5	9	21
	Percent	10.0%	2.5%	12.5%	22.5%	52.5%

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PowerPoint	N	4	1	5	7	23
	Percent	10.0%	2.5%	12.5%	17.5%	57.5%
Video Editors	N	6	10	19	1	4
	Percent	15.0%	25.0%	47.5%	2.5%	10.0%
Email	N	2	5	15	8	10
	Percent	5.0%	12.5%	37.5%	20.0%	25.0%
Google Classroom	N	20	4	13	1	2
	Percent	50.0%	10.0%	32.5%	2.5%	5.0%
Google Meet	N	24	4	11	1	0
	Percent	60.0%	10.0%	27.5%	2.5%	0.0%
WhatsApp Groups	N	0	1	7	8	24
WhatsApp Groups	N Percent	0.0%	1 2.5%	7 17.5%	8 20.0%	<ul><li>24</li><li>60.0%</li></ul>
WhatsApp Groups Zoom						
	Percent	0.0%	2.5%	17.5%	20.0%	60.0%
	Percent N	0.0%	2.5%	17.5% 11	20.0%	60.0%
Zoom	Percent N Percent	0.0% 12 30.0%	2.5% 13 32.5%	17.5% 11 27.5%	20.0% 1 2.5%	60.0% 3 7.5%
Zoom	Percent N Percent N	0.0% 12 30.0% 4	2.5% 13 32.5% 1	17.5% 11 27.5% 4	20.0% 1 2.5% 9	60.0% 3 7.5% 22
Zoom Google Drive	Percent N Percent N Percent	0.0% 12 30.0% 4 10.0%	2.5% 13 32.5% 1 2.5%	17.5% 11 27.5% 4 10.0%	20.0% 1 2.5% 9 22.5%	60.0% 3 7.5% 22 55.0%
Zoom Google Drive	Percent N Percent N Percent	0.0% 12 30.0% 4 10.0% 37	2.5% 13 32.5% 1 2.5% 1	17.5% 11 27.5% 4 10.0% 2	20.0% 1 2.5% 9 22.5% 0	60.0% 3 7.5% 22 55.0%

Table 4: Descriptive Statistics on the Use of ICT Tools by EFL Teachers

N	Mean	Std.Deviation	
40	4.60	.672	
40	4.47	1.012	
40	4.38	.868	
40	4.30	1.265	
40	4.10	1.297	
	40 40 40 40	40 4.60 40 4.47 40 4.38 40 4.30	40       4.60       .672         40       4.47       1.012         40       4.38       .868         40       4.30       1.265

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PowerPoint	40	4.10	1.317
Word Processors	40	4.05	1.300
Desktop	40	3.68	1.385
Email	40	3.48	1.154
CD Player	40	3.33	1.670
IWB Software	40	3.23	1.593
Interactive Whiteboard (IWB)	40	3.15	1.703
Video Editors	40	2.68	1.095
Zoom	40	2.25	1.149
Digital Camera	40	2.20	1.305
Google Classroom	40	2.03	1.187
Microsoft Teams	40	1.98	1.050
Google Meet	40	1.72	.960
Skype	40	1.13	.463

Table 3 and Table 4 point to the fact that the complete itemized ICT tools are utilized by the participants. Yet, some ICT tools have high-frequency use, while others have low-frequency use. The five-point Likert scale is used to measure the use of these ICT tools in an interval scale ranging from Never to Always. The mean shown in Table 4 is telling about the private schools' EFL teachers' use of ICT tools. From 1 to 1.8 means Never, from 1.81 to 2.60 means Rarely, from 2.61 to 3.40 means Sometimes, from 3.41 to 4.20 means Usually, and from 4.21 to 5 means Always.

The findings from Table 4 are sorted out according to the mean in descending order. It is plain that the laptop, WhatsApp groups, speakers, and data projector scored a mean higher than 4.21, indicating that they are constantly used in EFL teaching. That is supported by the low standard deviation, which indicates that the participants' responses are skewed towards "Always". Google Drive, PowerPoint, Word processors, Email, and Desktop are, however, usually used by EFL teachers since their mean values are higher than 3.41. Moreover, Interactive Whiteboard (IWB), IWB Software, CD player, and video editors score means range from 2.61 to 3.40, which indicates that EFL teachers sometimes use these tools. Yet, the standard deviation for IWB, IWB Software, and CD player use indicates that the answers are widely spread all over the scale interval. Table 3 confirms this since 40%, 35%, and 30% of the participants argue that CD players, IWB, and IWB Software, respectively, are used consistently.

The majority of EFL teachers report a poor use of Zoom, Microsoft teams, Google classroom, and digital cameras, while Google Meet and Skype score the lowest means (1.72,1.13), indicating that these two ICT tools are the least ever used. The data illustrated in Table 3 and Table 4 point to the fact that private high school EFL teachers are quite familiar with ICT usage. However, the ICT-friendliness of these EFL practitioners does not mean that ICT-based teaching is a barrier-free endeavor.

#### 4.4. Perceived Barriers to the Use of ICT

Several barriers may hinder effective and efficient ICT use. The barriers examined in this study are lack of digital competence, time constraint, lack of effective training, lack of motivation, and lack of accessibility. A five-point Likert scale is designed to get insight into the extent to which these variables constitute potential impediments to ICT espousal by EFL teachers. The scale interval ranges from (Strongly Disagree) to (Strongly Agree). Table 5 is a frequency analytic representation of the perceived barriers to ICT use in the EFL teaching context.

Table 5: Frequency Analysis of the Perceived Barriers

		SD	D	N	A	SA
Lack of Competence	N	4	7	7	11	11
	Percent	10.0%	17.5%	17.5%	27.5%	27.5%
Lack of Time	N	1	4	4	17	14
	Percent	2.5%	10.0%	10.0%	42.5%	35.0%
Lack of Effective	N	1	8	3	16	12
	Percent	2.5%	20.0%	7.5%	40.0%	30.0%
Training						
Lack of Motivation	N	6	3	4	16	11
	Percent	15.0%	7.5%	10.0%	40.0%	27.5%
		SD	D	N	A	SA
Lack of Accessibility	N	3	1	4	15	17
·	Percent	7.5%	2.5%	10.0%	37.5%	42.5%

SD= strongly disagree; D= disagree; N= neutral; A= agree; SA= strongly agree.

The descriptive analysis' means of this particular scale is significant in determining whether the hypothesized barriers are seen as impediments to ICT use or not by these participants. Scoring a mean ranging from 3.41 to 5 will support the hypothesized barrier while scoring a mean ranging between 1 and 3.40 will negate the hypothesized barrier.

Table 6: Descriptive Statistics on the Perceived Barriers and Hypotheses Test

Hypotheses	N	Mean	Decision
H1Lack of Digital Competence	40	3.45	Supported
H2 Lack of Time	40	3.98	Supported
H3 Lack of Effective Training	40	3.75	Supported
H4 Lack of Motivation	40	3.57	Supported
H5 Lack of Accessibility	40	4.05	Supported
Valid N (listwise)	40		

Data presented in Table 6 provide strong evidence for the factual validity of the hypothesized barriers to ICT espousal and used by the participants.

#### 4.5. Factors Influencing Attitudes

Before analyzing the factors that influence the teachers' attitudes towards ICT use, I deem it conducive to using descriptive statistics on the ATT construct to fathom the attitudes of the participants towards ICT use. Table 7 displays the mean and the values of the standard deviations of each indicator (ATT1, ATT2, and ATT3).

 Table 7: Descriptive Statistics on the Attitudes of EFL Teachers

	N	Mean	Std.Deviation	
ATT1	40	4.35	.834	
ATT2	40	4.40	.778	
ATT3	40	4.33	.829	
ValidN (listwise)	40			

Std. Deviation= standard deviation.

The positive attitudes of the participants towards ICT use are plainly discernible. The mean in all three indicators (ATT1, ATT2, and ATT3) is considerably high (ATT1 = 4.35; ATT2 = 4.40, and ATT3 = 4.33), while the standard deviation values are below .84, indicating that the teachers' responses are clustered around the mean, varying from a mean value of 3.5 to 5.

# 5. Reliability Validity of the Model

The Structural Equation Modelling (SEM) using AMOS 23 is applied to determine whether the hypothesized relationships among the Reduced TAM constructs (PEoU, PU, and ATT) are supported or refuted. The model, let us emphasize, consists of three constructs: two exogenous (PU and ATT) and one endogenous construct (PEoU).

Within this vein, Hair et.al (2010) specifies that if the measurement model's validation fails, the structural model's results would be biased. Therefore, Confirmatory Factor Analysis (CFA) is utilized to assess the reliability and validity of the scale. Figure 3 presents the CFA results, while Table 8 and Table 9 respectively display the Convergent Validity and the Discriminant Validity of the scale.

#### 5.1. Convergent Validity

Table 8

Constructs	Indicator	SL(≥.50)	CR(≥.60)	AVE(≥.50)
PEoU	PEoU1	.93	.938	.834
	PEoU2	.88		
	PEoU3	.93		
PU	PU1	.73	.864	.617
	PU2	.80		
	PU3	.89		
	PU4	.71		
ATT	ATT1	.72	.852	.662
	ATT2	.96		
	ATT3	.74		

SL = standardized loadings; CR = composite reliability; AVE = average variance extracted; PEoU= perceived ease of use; PU= perceived usefulness; ATT= attitudes toward use.

#### 5.2. Discriminant Validity

Table 9

	PEoU	PU	ATT
PEoU	0.913		
PU	0.542	0.786	
ATT	0.577	0.733	0.814

Construct diagonal value=  $\sqrt{AVE}$  of construct

Composite Reliability (CR) and Average Variance Extracted (AVE) are calculated to assess the convergent validity of the items within constructs. The extracted Standardized CFA Loadings values of the constructs' items surpass the 0.50 minimum loading requirement, whereas the CR of all constructs goes beyond the threshold of 0.60. Furthermore, the AVE of all constructs also exceeded the minimum threshold of 0.50. All the measurement model constructs have the required internal consistency reliability. Thus, this model fulfills construct reliability and convergent validity.

The discriminant validity test is a requisite for testing whether the model's constructs are distinct enough to collect information independently. In this respect, Kashif et al. (2015) concur that the discriminant validity is met when the correlations of constructs score a value less than 0.85. Table 8 illustrates the correlation between all constructs and the diagonal values that are the square root of the

average variance extracted from each of the three constructs. The discriminant validity is assured when each diagonal value exceeds the correlation values within its column and row. As it is evident in Table 8, all the values have met the requirements. Consequently, discriminant validity is met.

Hence, the measurement model reached the appropriate levels of reliability in tandem with convergent and discriminant validity.

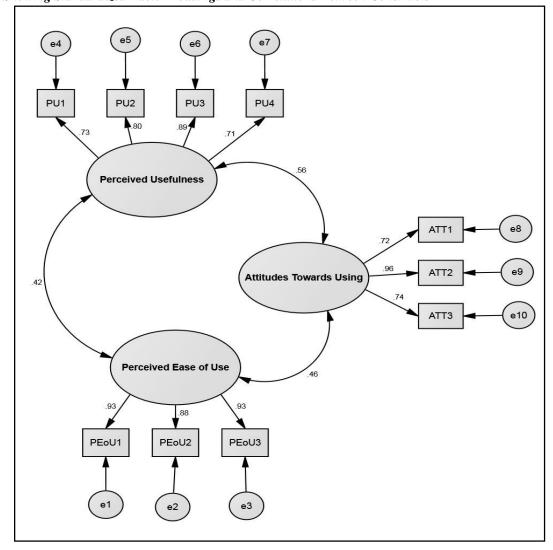


Figure 3: CFA Showing Standardized Factor Loadings and Correlations Between Constructs

#### 5.3. Confirmatory Factor Analysis

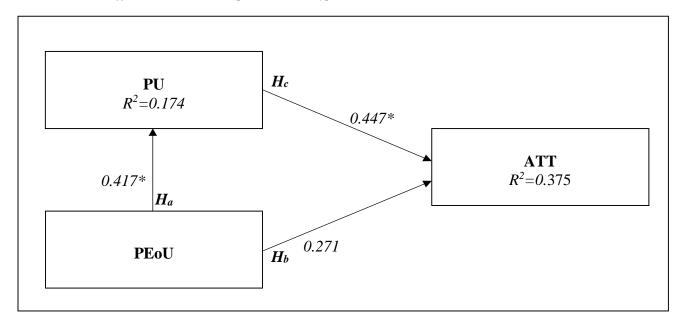
As a follow-up to validating the measurement model, it is quite sensical to check whether the utilized model is a good fit for the collected data or not. With this end in mind, the CFA with maximum likelihood estimation is applied. The aim is to assess the extent to which the reduced TAM fits the sample data. Some indices are used to assess the fit of the measurement model: the  $\chi 2$  to its degree of freedom ( $\chi 2$ /df) ratio, Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI) and the Root Mean Square Residual (RMSR).

Table 10: The Fitting Indices Results

Name of Index	Level of Acceptable Fit	TAM	Decision
Chi-square/degree of freedom (χ²/df)	≤3.00	.552	Accepted
Goodness-of-fit index (GFI)	≥.90	.918	Accepted
Adjusted goodness-of-fit index (AGFI)	≥.80	.860	Accepted
Comparative fit index (CFI)	≥.90	1	Accepted
Root mean square residual (RMSR)	≤.08	.00	Accepted

As shown in Table10, the CFA confirms the consistency between the proposed measurement model TAM— and the sample data. Verifiably, the reduced TAM has reached the required level to be an ideal fit for the sample data. The related hypotheses are tested using the SEM path analysis model, which determines three values for each hypothesized relationship, namely path coefficient, path significance, and variance explained (R2).

Figure 4: Model Path Coefficients, Variance Explained, and Hypotheses



PEoU= perceived ease of use; PU= perceived usefulness; ATT= attitudes towards use.

#### \*p < 0.05

Of the three hypotheses, Ha and Hc are supported, while Hb is not. The findings illustrated in Figure 4 reveal that PEoU significantly influences PU ( $\beta$ =0.417, p < 0.05) but not ATT ( $\beta$ =0.271, p = 0.101, which is not significant due to its higher

value than the threshold of (0.05), hence supporting hypothesis Ha but not Hb. Furthermore, PU is significant in influencing ATT ( $\beta$ =0.447, p < 0.05), thus, Hc is supported. The findings further indicate that the exogenous variable PU is notably determined by the direct effect of the endogenous variable PEoU, engendering a variance explained R2-value of 0.174. Accordingly, the PEoU explains 17.4% of the variance in PU. Similarly, the findings show that the exogenous variable ATT is significantly determined by the exogenous variable PU, engendering an R2-value of 0.375; hence, the PU explains a significant 37.5% of the variance in ATT. These findings are shown in Table 11.

Table 11: Path Analysis and Hypotheses' Results

Hypotheses	Relationship	Path Coefficient	Results
На	$PEoU \rightarrow PU$	.417*	Supported
Hb	PEoU →ATT	.271	Not Supported
Нс	$PU \rightarrow ATT$	.447*	Supported

PEoU= perceived ease of use; PU = perceived usefulness; ATT= attitudes towards use.

#### 6. Discussion

This research explored the use of ICT among private school EFL teachers following three research avenues: identifying the different tools used by these teachers in their daily teaching processes, specifying the barriers that may prevent these EFL teachers from using ICT efficiently, and coming to terms with the attitudes of the teachers towards the use of ICT.

#### 6.1. EFL Teachers and ICT Use

The findings reveal the participants' rising awareness about the utility of ICT in the EFL teaching endeavor. Constant use of the laptop, IWB, PowerPoint, and speakers, to name just a few, are part and parcel of the participants' educational life. Among the sample population (N = 40), small though it is, a total of 19 different ICT resources are reportedly used more than once in EFL teaching processes. The laptop and speakers are reported to be "Always" used with 70%, while data projectors received "always" 67.5%, and PowerPoint is constantly used with a percentage of 57.5%.

These results do not support previous research findings, such as the ones reported by Al-Zaidiyeen et al. (2010), which point to a general poor ICT use among teachers. The findings also put in the limelight the use of virtual teaching platforms, namely Zoom, Google Meet, Microsoft Teams, and WhatsApp Groups, which are subjects of frequent use by the participants. I did not seek to investigate the reasons for adopting these distance teaching technologies, among others, because this paradigm is beyond the scope of this study. The findings provide telling answers to the research questions and sub-questions relating to the use as well as the frequency of ICT use by private school EFL teachers in the Marrakech Directorate.

#### **6.2.** Hypotheses Veracity

The findings point to the veracity of the hypothesized barriers that hamper ICT espousal, specifically lack of digital competence, time constraints, lack of effective training, reduced motivation, and accessibility. All the hypothesized barriers scored a mean higher than 3.41 (3.45; 3.98;3.75; 3.57; 4.05), with lack of digital competence having the lowest mean (3.45) and both lack of time and lack of accessibility getting the highest means (3.98 and 4.05) respectively. These findings denote that the lack of accessibility to ICT tools is perceived as the most critical obstruction along with the time constraint variable, while lack of digital competence scored the lowest mean (3.45); yet, this value is still above 3.41. These findings are starkly consistent with burgeoning research outcomes related to this research axis.

#### 6.3. Attitudes and Gratifications

The Moroccan private school EFL teachers' attitudes towards ICT use and, eventually, their gratification by ICT usage in ELT are examined through the reduced TAM. The findings reveal that the participants' perceptions regarding ICT usefulness predict the teachers' attitudes and gratification ratio. Before using the SEM on the reduced TAM, the mean values of the attitudes scale are tested, and according to Table 11, significant positive attitudes towards ICT use are confirmed by the participants. This finding is in line with the prior research results of Zaidiyeen et al. (2010).

The results of the TAM reveal that PEoU has a significant favorable influence on the PU (Ha) ( $\beta$ =0.417, p < 0.05), akin to the findings of Teo et al. (2017), and explains 17.4% of its variance. That is to say, the teachers' perceptions regarding the ease of ICT tools usage do influence their perceptions of how valuable these ICT tools can be in their teaching undertakings.

This finding is consistent with a previous study by Davis (1989). Similarly, the PU has a significant favorable influence on the ATT (Hc) ( $\beta$ =0.447, p < 0.05), and a considerable 37.5% of the variance in ATT is explained by PU only. This finding is consistent with previous research results (Sivo et al., 2007; Lau and Woods, 2008; Teo et al., 2017). In other words, the EFL teachers' perceptions of the utility of ICT resources significantly influence their attitudes, as it can predict up to 37.5% of their attitudes towards using ICT. In Contrast Sime and Priestley's (2005), findings indicate that the ease of use of the ICT tool influences attitudes towards its use. The findings of this research show no significant relationship between the PEoU and ATT ( $\beta$ = 0.271, p = 0.101), which is compatible with

<sup>\*</sup>p < 0.05

the findings from the research of Teo et al. (2017). The obtained p-value for the PU and ATT relationship was higher than the maximum requirement, which is 0.05. Far from being rudimentary, the participants' use of ICT, perceived utility of ICT, Attitudes, and relevant gratifications find their roots in the participants' outspoken stance towards ICT as an empowering, go-ahead factor for the EFL teaching Practice.

#### **CONCLUSION**

This study is geared towards exploring private high school teachers' ICT use and related parameters, such as attitudes and barriers. Based on quantitative analysis, it turns out that EFL practitioners in Marrakech Directorate are endowed with a visible awareness of ICT as an asset for promoting the EFL teaching endeavor. Far from being challenge-free, ICT espousal, in tune with the outcome of this study, entails coping seriously with a whole range of context-bound impediments, including lack of digital competence, time-related constraints, lack of effective training, lack of motivation, and lack of accessibility to ICT resources. These variables are blocking stones for a full ICT-specific gratification for the EFL teachers. Regardless of the actual existence of potential barriers, the findings point to the participants' positive attitudes towards the use of ICT- an asset that educational decision-makers are supposed to capitalize on for installing an ICT-faithful teaching environment.

This investigation, let us emphasize, is not immune from limitations. Reaching private school EFL teachers for data collection was one of the paramount challenges, especially with the COVID-19-imposed safety measures. Additionally, the sample size is not sufficiently representative of all the Moroccan private schools' EFL teachers. Furthermore, this particular study did not use in-depth interviews or classroom observations, COVID-19 obliged, which could have generated more substantial data that might have called for the use of a Mixed-Method of analysis. This said, the merits of this study far outweigh its demerits in the sense that it is the first of its nature to go into a "Road Not Taken", namely EFL teaching and ICT espousal in the private education sector in Morocco. Besides, the researcher is to be credited for having taken the challenge to conduct this study at a time of COVID19-dictated, multi-layered insecurity.

Future research may be directed toward testing the influence of Constructivist Teaching Beliefs (CTB) and Facilitating Conditions (CF) variables, which research avenue is tapped into by Teo et al. (2017). Additionally, future studies may work on the modified TAM model and compare its workability with the initial model examined in this study. In addition to the variables used in this research, (PEoU), (PU, and (ATT), it could be worth investigating some of the variables related to the reasons why some digital teaching platforms are more in use than others. Last, but not least, the EFL teachers' future ICT-related behavior and intent remain a luring area of investigation.

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# Appendix

# **QUESTIONNAIRE**

Re: The Use of ICT in English Language Teaching Among Moroccan EFL Teachers.

School:	Date:					
SECTION A Demographic Information						
Kindly tick the proper ovals below $()$						
1. Gender						
MaleFemale						
2. Age						
19-25						
26-32						
33-39						
40 years and above						
3. Academic Qualifications						
Bachelor's Degree						
Master's Degree						
PhD						
Other:						
4. Years of EFL Teaching Experience						
Less than 1 year						
1-3 years						
4-6 years						
7 years and above						

# **ICT Tools Use Rate in EFL Teaching**

5. How often do you use the following ICT tools in your EFL teaching?

Mark only one oval per row.

	Always	Usually	Sometimes	Rarely	Never
Laptop					
Interactive Whiteboard (IWB)					
IWB Software					
Data Projector					
Digital Camera					
CD Player					
Speakers					
Desktop					
Word Processors					
PowerPoint					
Video Editors					
Email					
Google Classroom					
Google Meet					
WhatsApp Groups					
Zoom					
Google Drive					
Skype					
Microsoft Teams					

\*Note. Your use of ICT is taken into account when teaching and preparing teaching materials.

# **Barriers & Constraints**

#### 6. I consider the following as barriers and constraints that could impede my use of ICT in English Language Teaching. Mark only one oval per row. Strongly Strongly Disagree Neutral Agree Agree Disagree Being a digital non-native can make using ICT a rather daunting task. The lack of sufficient time to use ICT tools can impede my ICT use. The lack of effective training can impede my ICT use. My ICT use can be hampered by a lack of motivation to use ICT tools. The inability to access ICT tools when I need them can stymie my ICT use.

# **SECTION B**

1. Perceived Ease of Use							
Mark only one oval per row.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
My interaction with ICT is clear and understandable.							
I find it easy to get ICT tools to do what I want them to do.							
It is easy to use ICT when teaching.							
2. Perceived Usefulness							
Mark only one oval per row.	Strongly Disagree	Disagree	e Neutra	I Agree	Strongly Agre		
ICT improves my teaching.		<del></del>		<del></del>			
ICT enhances my effectiveness.							
ICT increases my productivity.							
ICT is important in English language teaching.							
3. Attitude towards using ICT tools in English Language teaching  Mark only one oval per row.							
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
Using ICT in EFL classroom is good.  Using ICT in EFL classroom is beneficial.							
My experience with ICT use in EFL class	sroom is positive.						

\*Note. Your use of ICT is taken into account when teaching and preparing teaching materials