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**| RESEARCH ARTICLE**

**EFL Teachers' Perceptions and Use of ICT in the Skhirat-Témara Provincial Directorate, Morocco: An Exploratory Correlational Study of Perceived Student Engagement**

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**| ABSTRACT**

This exploratory quantitative correlational study investigates the use of Information and Communication Technology (ICT) among English as a Foreign Language (EFL) teachers in the Skhirat-Témara Provincial Directorate, Morocco. It examines the ICT tools most frequently used, the challenges associated with their integration, and the relationship between effective ICT integration and perceived student engagement. Data were collected through an online questionnaire administered to 22 high school EFL teachers via Google Forms and analyzed using SPSS. Descriptive statistics were used to examine ICT usage patterns and implementation challenges, while Pearson's correlation coefficient was employed to examine the relationship between effective ICT integration and perceived student engagement. The findings show that teachers use a range of ICT tools, with educational websites and online resources being among the most frequently used. Participants reported challenges related to infrastructure, financial constraints, and the accessibility and availability of ICT resources and support services. The correlation analysis revealed a moderate, positive, and statistically significant relationship between effective ICT integration and perceived student engagement ( $r = .533$ ,  $p = .011$ ). The study concludes that effective ICT integration is positively associated with perceived student engagement in EFL classrooms. It highlights the importance of adequate ICT resources and continued professional development for teachers. Given the small sample size, the findings are exploratory and context-specific and should not be generalized beyond the study setting.

**| KEYWORDS**

EFL teachers, ICT integration, teacher perceptions, ICT tools, student engagement, English language teaching, Morocco

**| ARTICLE INFORMATION**

**ACCEPTED:** 10 July 2026

**PUBLISHED:** 28 August 2026

**DOI:** 10.32996/bjtep.2026.5.9.1

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**1. Introduction**

Information and Communication Technology (ICT) has become an important component of contemporary education. It provides teachers with digital tools and resources that can support teaching and learning. In English as a Foreign Language (EFL) contexts, ICT can facilitate access to multimedia materials, online resources, language-learning applications, assessment tools, and interactive learning activities (Golonka et al., 2014). However, effective ICT integration involves more than the availability of technology. It also depends on teachers' knowledge, perceptions, and ability to use digital resources for pedagogical purposes. Teachers therefore play a central role in determining how technology is incorporated into classroom practice (Maru et al., 2021). In Morocco, ICT integration has been promoted as part of broader efforts to modernize the education system. One significant initiative is the GENIE programme, launched in 2005 to support the incorporation of ICT into primary and secondary education. The programme has focused on several areas, including technological infrastructure, teacher training, digital educational resources, and the development of technology-supported teaching practices (UNESCO, 2018). Such initiatives reflect the growing importance of digital technologies in Moroccan education. There is also a need to equip teachers with the resources and competencies required for their effective pedagogical use.

Within English language education, previous studies have examined how Moroccan EFL teachers use and perceive ICT. Elfatihi and Ait Hammou (2019), for example, investigated ICT integration among secondary-school EFL teachers and found variation in teachers' levels of technology use. Their findings also emphasized the important role teachers play in integrating digital technologies into language instruction. Similarly, Ismaili (2022) examined ICT use among Moroccan EFL teachers and reported that technology integration is influenced by both teacher-related and contextual factors, including attitudes, ICT competence, training, and the availability of technological resources. These findings suggest that effective ICT integration cannot be understood solely in terms of access to technology but should also be considered in relation to teachers' experiences and the conditions in which they work.

Despite the potential of ICT to support English language teaching, its classroom integration may be accompanied by several challenges. Inadequate access to ICT resources, insufficient training, technological difficulties, and infrastructural limitations can affect teachers' ability to use digital tools effectively (Ismaili, 2022; Maru et al., 2021). At the same time, teachers' perceptions of the usefulness of ICT and their experiences with different digital tools can influence how frequently and effectively these technologies are incorporated into instruction. The examination of teachers' reported patterns of ICT use, together with the challenges they encounter, can therefore provide a more context-sensitive understanding of technology integration in EFL classrooms.

Another relevant aspect of ICT-supported teaching is student engagement. Digital technologies can provide teachers with opportunities to diversify classroom activities and create more interactive learning experiences (Schindler et al., 2017). However, the present study does not directly measure student engagement through student self-reports or classroom observations. Instead, it examines teachers' perceptions of student engagement and investigates whether these perceptions are associated with effective ICT integration. The study also does not assess students' academic achievement. This distinction is important because the study focuses on teachers' reported experiences rather than making direct claims about objectively measured student outcomes.

Building on previous research conducted in Moroccan secondary EFL contexts, the present study extends the investigation of ICT integration to the Skhirat-Témara Provincial Directorate, Morocco. It adopts an exploratory quantitative correlational approach to examine how EFL teachers use ICT in English language teaching and the challenges associated with its integration. It also investigates the relationship between effective ICT integration and teachers' perceptions of student engagement. Given the localized context and the sample of 22 EFL teachers, the study seeks to provide exploratory, context-specific evidence rather than findings that can be generalized to EFL teachers across Morocco.

### **1.1 Research Problem**

The integration of Information and Communication Technology (ICT) into English as a Foreign Language (EFL) teaching offers opportunities to enrich classroom instruction. It can diversify learning resources and support student engagement. However, the effectiveness of ICT integration depends on several factors, including teachers' perceptions, their patterns of technology use, access to digital resources, infrastructure, and opportunities for professional training. Although previous studies have examined ICT use among EFL teachers in Morocco, limited context-specific evidence is available on ICT integration in the Skhirat-Témara Provincial Directorate. In particular, further research is needed to understand how EFL teachers use ICT, the challenges they encounter, and the relationship between effective ICT integration and perceived student engagement. Addressing this gap may provide locally relevant evidence to inform future research, teacher professional development, and ICT-supported English language teaching.

### **1.2 Research Questions**

Based on the research problem outlined above, this study addresses the following research questions:

RQ1: How do EFL teachers in the Skhirat-Témara Provincial Directorate use ICT in English language teaching, and what challenges do they report regarding its integration?

RQ2: What is the relationship between effective ICT integration and EFL teachers' perceptions of student engagement in the Skhirat-Témara Provincial Directorate?

### **1.3. Hypothesis**

Based on the second research question, the study proposes the following hypothesis:

H1: There is a positive relationship between effective ICT integration and EFL teachers' perceptions of student engagement. This hypothesis reflects the assumption that more effective ICT integration may be associated with higher levels of perceived student engagement. Pearson's correlation coefficient was used to examine the strength and direction of this relationship.

## 2. Background

### 2.1. Historical Context and Educational Reforms

The integration of Information and Communication Technology (ICT) into Moroccan education has developed within broader national efforts to modernize the education system and improve the quality of teaching and learning. A significant step was taken in 2005 with the introduction of the GENIE programme, a national initiative designed to promote ICT integration in primary and secondary education. The programme focused on technological infrastructure, teacher training, digital educational resources, and the development of pedagogical uses of ICT (National Telecommunications Regulatory Agency [ANRT], n.d.; UNESCO, 2018). This initiative reflected Morocco's growing commitment to incorporating digital technologies into classroom practices and strengthening teachers' capacity to use them effectively.

Teacher preparation has been a particularly important component of ICT integration. Access to technological equipment alone does not ensure its effective pedagogical use. Teachers require both technical competencies and appropriate training to integrate digital resources meaningfully into their instructional practices. In the Moroccan EFL context, previous research has shown that the extent of ICT integration varies among secondary-school teachers. It may be influenced by factors such as technological competence, training, access to resources, and teachers' attitudes toward technology (Elfatihi & Ait Hammou, 2019; Ismaili, 2022).

The promotion of ICT has also been reinforced through Morocco's broader educational reform agenda. The *Strategic Vision of Reform 2015–2030*, developed by the Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique, identifies equity, quality, and the advancement of individuals and society as central principles of educational reform. The Vision emphasizes the modernization of teaching and learning practices and the development of learners' competencies. It also highlights the need for schools to respond to technological and societal changes (Conseil Supérieur de l'Éducation, de la Formation et de la Recherche Scientifique, 2015).

These national reforms have established an institutional framework that supports the increasing use of digital technologies in Moroccan schools. Nevertheless, ICT integration may differ considerably across educational settings because of variations in infrastructure, access to resources, teacher preparation, and local conditions. Examining teachers' experiences within specific contexts is therefore necessary to understand how national ICT policies are reflected in classroom practice. These contextual variations highlight the importance of examining ICT integration within specific local educational settings, including the Skhirat-Témara Provincial Directorate.

### 2.2. Theoretical Framework

The present study is informed by the Technology Acceptance Model (TAM), developed by Davis (1989) to explain individuals' acceptance and use of information technology. TAM proposes that technology acceptance is primarily influenced by two key beliefs: perceived usefulness (PU) and perceived ease of use (PEOU). Perceived usefulness refers to the extent to which individuals believe that using a particular technology will enhance their performance. Perceived ease of use refers to the extent to which they believe that using the technology will require little effort (Davis, 1989). These two perceptions influence users' attitudes toward technology and their willingness to adopt and use it (Davis et al., 1989). In educational contexts, TAM has also been applied to examine teachers' acceptance of technology. Teo (2009), for example, demonstrated the relevance of perceived usefulness and perceived ease of use in explaining pre-service teachers' technology acceptance. More broadly, a meta-analytic study by Scherer et al. (2019) confirmed the usefulness of TAM for explaining teachers' adoption of digital technologies in education.

TAM provides a relevant framework for examining ICT integration among EFL teachers. Teachers' decisions to use digital technologies may depend partly on whether they perceive these tools as useful for their teaching and sufficiently accessible and manageable for classroom use (Ertmer et al., 2012). In an EFL context, perceived usefulness may relate to teachers' beliefs that ICT can support instructional practices, provide access to diverse learning resources, and facilitate classroom activities. Perceived ease of use concerns teachers' perceptions of how easily ICT tools can be incorporated into their existing teaching practices. Research involving EFL teachers has demonstrated that attitudes toward ICT are associated with factors such as perceptions of technology, computer competence, and contextual conditions surrounding its use (Albirini, 2006).

The model is also relevant to the present study's examination of teachers' ICT usage patterns. Within TAM, favorable perceptions of usefulness and ease of use can contribute to positive attitudes and greater acceptance of technology, which may ultimately be reflected in actual technology use (Davis et al., 1989). In this study, teachers' reported use of different ICT tools provides an indication of how digital technologies are incorporated into EFL classroom practices. At the same time, contextual factors such as access to ICT resources, infrastructure, and training are considered because they may facilitate or constrain teachers' ability to integrate technology effectively.

TAM is used in this study as a theoretical lens rather than as a complete structural model to be statistically tested. The study does not examine all causal relationships proposed within TAM. Instead, the framework supports the interpretation of teachers'

perceptions and use of ICT. Perceived student engagement is not a component of TAM; it is examined separately as an educational variable that may be associated with effective ICT integration. This distinction allows the theoretical framework to remain consistent with the study's exploratory quantitative correlational design and research questions.

### **2.3. Empirical Evidence**

Empirical research on ICT integration in Moroccan EFL contexts has generally shown positive perceptions of technology among teachers and learners. It also reveals considerable variation in its actual classroom use. Soussi (2016), in a study involving Moroccan high school EFL teachers and learners, found that participants generally viewed ICT positively. They associated its use with increased motivation, facilitated learning, and richer classroom interaction. However, the study also identified administrative, technical, and human challenges that could limit effective ICT integration.

A similar distinction between positive perceptions and actual practices emerges in research on technology-supported assessment. Menyani and Laabidi (2020) investigated Moroccan EFL high school teachers' attitudes toward and use of ICT for assessing students' learning. Although teachers expressed positive attitudes toward the use of ICT as an assessment tool, its actual use for assessment was limited. This finding suggests that favorable perceptions of technology do not necessarily translate into consistent classroom implementation.

Other studies have focused more directly on teachers' ICT integration practices and the factors influencing them. Elfathi and Ait Hammou (2019) examined ICT integration among 80 EFL teachers in Moroccan public secondary schools. Their findings showed no statistically significant difference between male and female teachers in their overall use of ICT, although levels of technology integration varied among participants. Similarly, Ismaili (2022) found that ICT use among Moroccan high school EFL teachers was influenced by both teacher-related and contextual factors. Teachers' attitudes toward technology represented an important internal factor, while limited ICT facilities and equipment constituted significant external constraints.

Research has also highlighted the barriers affecting effective ICT integration. Ait Hammou and Elfathi (2021) identified inadequate ICT facilities, limited time, insufficient continuous training, technical difficulties, and lack of technical support as major challenges encountered by Moroccan secondary-school EFL teachers. Likewise, Zanzoun (2021) reported generally positive attitudes toward ICT among Moroccan EFL teachers, who perceived technology as potentially beneficial for teaching and student motivation. Even so, participants identified several obstacles, such as inadequate training, limited access to technological equipment, technical difficulties, and time constraints. These findings indicate that teachers' willingness to use ICT needs to be supported by appropriate infrastructure, resources, training, and institutional conditions.

Taken together, previous studies demonstrate that Moroccan EFL teachers generally recognize the pedagogical potential of ICT, although its integration remains shaped by differences in access, training, competence, and school conditions. Much of the existing research has focused on teachers' attitudes, ICT-use patterns, and barriers to technology integration. The present study extends this literature by providing context-specific evidence from the Skhirat-Témara Provincial Directorate and by examining the relationship between effective ICT integration and perceived student engagement.

## **3. Methodology**

### **3.1. Research Design**

This study adopted an exploratory quantitative correlational research design to investigate ICT integration among EFL teachers in the Skhirat-Témara Provincial Directorate, Morocco. The quantitative approach enabled the collection and analysis of numerical data concerning teachers' ICT use, the challenges associated with its integration, and perceived student engagement. The correlational component examined the relationship between effective ICT integration and EFL teachers' perceptions of student engagement. As the study was non-experimental, no variables were manipulated; therefore, the design permits the examination of associations between variables rather than causal inference.

### **3.2. Population and Sampling**

The target population for this study consisted of EFL teachers working in high schools within the Skhirat-Témara Provincial Directorate, Morocco. A non-probability convenience sampling technique was used to recruit participants who were accessible to the researcher through professional networks. Participation was voluntary, and the final sample comprised 22 EFL teachers who completed the questionnaire. The participants represented different levels of teaching experience and included teachers with and without formal ICT training. Given the relatively small and geographically specific sample and the use of convenience sampling, the study is exploratory in nature. The findings are therefore interpreted within the context of the Skhirat-Témara Provincial Directorate and are not intended to be generalized to EFL teachers across Morocco.

### 3.3. Data Collection Instrument

#### 3.3.1. Questionnaire Structure and Content

Data were collected using a researcher-developed structured questionnaire designed to examine ICT integration among EFL teachers. The questionnaire included items on participants' demographic and professional characteristics, frequency of ICT-tool use, ICT-related challenges and resource accessibility, effective ICT integration, and perceived student engagement. The demographic variables reported in the present study included gender, teaching experience, and formal ICT training. ICT use was assessed across six categories: interactive whiteboards, learning management systems, online quizzes and assessments, educational websites and online resources, language-learning software and applications, and Google Apps for Education. The closed-ended items used five-point Likert-type response formats. ICT-use frequency ranged from 1 (always) to 5 (never), with lower scores indicating more frequent use. Infrastructure-related and financial constraints ranged from 1 (significantly) to 5 (not at all), with lower scores indicating greater perceived challenges, while ICT resource accessibility ranged from 1 (very limited) to 5 (very accessible and available). The questionnaire also included measures of effective ICT integration and perceived student engagement for the correlational analysis.

#### 3.3.2. Survey Procedures

The questionnaire was administered online using Google Forms, and the survey link was distributed to EFL teachers in the Skhirat-Témara Provincial Directorate through email and WhatsApp. Participation was voluntary, and informed consent was obtained electronically before participants proceeded to the questionnaire. Participants were informed about the purpose of the study and the confidentiality of their responses, and all 22 respondents provided consent to participate. The responses were subsequently exported and analyzed using SPSS.

### 3.4. Data Analysis

The questionnaire data were analyzed using the Statistical Package for the Social Sciences (SPSS). Both descriptive and inferential statistics were employed in accordance with the research questions. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize participants' demographic and professional characteristics. They were also used to examine patterns of ICT use and perceived challenges associated with ICT integration. Frequencies and percentages were used to describe gender, teaching experience, and ICT training. Moreover, means and standard deviations were calculated for the questionnaire items related to the use of different ICT tools and implementation challenges. For the ICT-use items, responses were measured on a five-point scale ranging from 1 (always) to 5 (never), with lower mean scores indicating more frequent use. The items concerning ICT-related conditions were measured on five-point scales. For infrastructure-related and financial constraints, responses ranged from 1 (significantly) to 5 (not at all), with lower scores indicating greater perceived challenges. For the accessibility of ICT resources and support services, responses ranged from 1 (very limited) to 5 (very accessible and available), with lower scores indicating more limited accessibility. To address the second research question, Pearson's product-moment correlation coefficient was used to examine the relationship between effective ICT integration and EFL teachers' perceptions of student engagement. A two-tailed significance level of  $p < .05$  was used to determine statistical significance. Given the small sample size and the use of Likert-type measures, the correlation results were interpreted cautiously as exploratory evidence of association. Because of the correlational design, the analysis was not used to establish causal relationships.

## 4. Results

The results are presented in four parts. The first describes the participants' demographic and professional characteristics. The second reports patterns of ICT tool use. The third examines the relationship between effective ICT integration and perceived student engagement. The final part presents ICT-related challenges and resource accessibility.

#### 4.1. Participant Characteristics

A total of 22 EFL teachers participated in the study. The sample was evenly distributed by gender, with 11 male teachers (50%) and 11 female teachers (50%).

**Table 1. Gender Distribution of Participants**

|       |        | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | Male   | 11        | 50,0    | 50,0          | 50,0               |
|       | Female | 11        | 50,0    | 50,0          | 100,0              |
|       | Total  | 22        | 100,0   | 100,0         |                    |

Regarding teaching experience, 5 participants (22.7%) reported between 1 and 5 years of experience, 12 participants (54.5%) reported between 11 and 20 years, and 5 participants (22.7%) had more than 21 years of teaching experience. Thus, more than half of the participants had between 11 and 20 years of professional experience.

**Table 2. Distribution of Participants by Teaching Experience**

| Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------|---------|---------------|--------------------|
| 5         | 22,7    | 22,7          | 22,7               |
| 12        | 54,5    | 54,5          | 77,3               |
| 5         | 22,7    | 22,7          | 100,0              |
| 22        | 100,0   | 100,0         |                    |

The participants were also asked whether they had received formal ICT training. Seventeen teachers (77.3%) reported having received formal ICT training, whereas 5 teachers (22.7%) reported that they had not. This indicates that most participants had some formal preparation related to the use of ICT.

**Table 3. Distribution of Participants by Formal ICT Training**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes   | 17        | 77,3    | 77,3          | 77,3               |
|       | No    | 5         | 22,7    | 22,7          | 100,0              |
|       | Total | 22        | 100,0   | 100,0         |                    |

#### **4.2. ICT Tool Usage Patterns**

To examine patterns of ICT use, participants were asked to indicate how frequently they used six types of ICT tools in their English language classrooms. Responses were measured on a five-point scale ranging from 1 (always) to 5 (never). Therefore, lower mean scores indicate more frequent use.

**Table 4. Descriptive Statistics for EFL Teachers' Use of ICT Tools**

|                                           | N  | Minimum | Maximum | Mean | Std. Deviation |
|-------------------------------------------|----|---------|---------|------|----------------|
| Interactive whiteboards                   | 22 | 1       | 5       | 3,82 | 1,368          |
| Learning management systems               | 22 | 1       | 5       | 3,18 | 1,181          |
| Online quizzes and assessments            | 22 | 1       | 5       | 3,64 | 1,399          |
| Educational websites and online resources | 22 | 1       | 5       | 2,86 | 1,356          |
| Language learning software and apps       | 22 | 1       | 5       | 2,95 | 1,362          |
| Google Apps for Education                 | 22 | 1       | 5       | 3,00 | 1,345          |
| Valid N (listwise)                        | 22 |         |         |      |                |

The results showed that educational websites and online resources were the most frequently used tools among those examined ( $M = 2.86$ ,  $SD = 1.356$ ), followed by language-learning software and applications ( $M = 2.95$ ,  $SD = 1.362$ ) and Google Apps for Education ( $M = 3.00$ ,  $SD = 1.345$ ).

Learning management systems were used less frequently ( $M = 3.18$ ,  $SD = 1.181$ ). Online quizzes and assessments ( $M = 3.64$ ,  $SD = 1.399$ ) and interactive whiteboards ( $M = 3.82$ ,  $SD = 1.368$ ) recorded the highest mean scores, indicating that they were the least frequently used tools among the six categories examined.

Overall, the findings indicated variation in the frequency with which EFL teachers used different ICT tools. Educational websites, online resources, language-learning applications, and Google Apps were used relatively more often than interactive whiteboards, online assessment tools, and learning management systems.

#### **4.3. Relationship between Effective ICT Integration and Perceived Student Engagement**

To address the second research question, Pearson's product-moment correlation coefficient was used to examine the relationship between effective ICT integration and EFL teachers' perceptions of student engagement.

**Table 5. Pearson Correlation Between Effective ICT Integration and Perceived Student Engagement**

|                                 |                                   | Effective Integration of ICT Tools | Students' engagement |
|---------------------------------|-----------------------------------|------------------------------------|----------------------|
| Effective ICT Tools Integration | Pearson Correlation               | 1                                  | ,533*                |
|                                 | Sig. (2-tailed)                   |                                    | ,011                 |
|                                 | Sum of Squares and Cross-products | 9,500                              | 4,500                |
|                                 | Covariance                        | ,452                               | ,214                 |
|                                 | N                                 | 22                                 | 22                   |
| Students' engagement            | Pearson Correlation               | ,533*                              | 1                    |

|                                   |       |       |
|-----------------------------------|-------|-------|
| Sig. (2-tailed)                   | ,011  |       |
| Sum of Squares and Cross-products | 4,500 | 7,500 |
| Covariance                        | ,214  | ,357  |
| N                                 | 22    | 22    |

\*. Correlation is significant at the 0.05 level (2-tailed).

The analysis revealed a moderate, positive, and statistically significant correlation between effective ICT integration and perceived student engagement,  $r = .533$ ,  $p = .011$ ,  $N = 22$ . Higher levels of effective ICT integration were associated with higher levels of perceived student engagement. The finding therefore supports H1. However, because the study is correlational, it indicates an association rather than a causal effect.

#### 4.4. ICT-Related Challenges and Resource Accessibility

Participants were also asked about challenges associated with ICT integration in their teaching context. The analysis focused on three areas: infrastructure-related challenges, accessibility and availability of ICT resources, and financial constraints or resource limitations.

**Table 6. Descriptive Statistics for ICT-Related Challenges and Resource Accessibility**

|                                                                      | N  | Minimum | Maximum | Mean | Std. Deviation |
|----------------------------------------------------------------------|----|---------|---------|------|----------------|
| Infrastructure-related challenges                                    | 22 | 1       | 5       | 2,14 | 1,246          |
| Accessibility and Availability of ICT Resources and Support Services | 22 | 1       | 5       | 2,82 | 1,296          |
| Financial constraints or resource limitations                        | 22 | 1       | 5       | 2,05 | 1,253          |
| Valid N (listwise)                                                   | 22 |         |         |      |                |

The mean score for infrastructure-related challenges was 2.14 ( $SD = 1.246$ ), while financial constraints or resource limitations recorded a mean of 2.05 ( $SD = 1.253$ ). Given that lower scores indicate a greater perceived impact of these challenges, the results suggest that both infrastructure-related and financial constraints represented notable concerns for the participants. Accessibility and availability of ICT resources and support services produced a mean score of 2.82 ( $SD = 1.296$ ). As lower scores on this item indicate more limited accessibility, this result suggests a moderate level of concern regarding access to ICT resources and support services.

Overall, the findings indicated variation across the three ICT-related conditions examined. Financial constraints and infrastructure-related challenges appeared relatively more pronounced, while accessibility and availability of ICT resources and support services represented a moderate concern.

## 5. Discussion

I. This study examined EFL teachers' ICT use and the challenges associated with its integration and investigated the relationship between effective ICT integration and perceived student engagement in the Skhirat-Témara Provincial Directorate. The findings are discussed in relation to previous research and the Technology Acceptance Model.

### 5.1. ICT Use and Challenges in EFL Teaching

The findings indicate that the participating teachers used a range of ICT tools, although their frequency of use varied considerably. Educational websites and online resources were used more frequently than the other tools examined, followed by language-learning software and applications and Google Apps for Education. In contrast, interactive whiteboards, online quizzes and assessments, and learning management systems were used less frequently. These patterns suggest that teachers may rely more on digital resources that are readily accessible and can be incorporated into existing classroom practices than on technologies that require specialized equipment, platforms, or institutional support. This finding is broadly consistent with previous research in the Moroccan EFL context. Elfathi and Ait Hammou (2019) found variation in the level of ICT integration among Moroccan secondary-school EFL teachers. Ismaili (2022) also found that ICT use among Moroccan high school EFL teachers was shaped by both teacher-related and technology-related factors. The present findings therefore reinforce the importance of examining ICT integration as a context-dependent practice rather than assuming that access to digital technologies necessarily leads to consistent classroom use.

The analysis of implementation challenges provides further insight into these usage patterns. Financial constraints and infrastructure-related challenges emerged as relatively more pronounced concerns among the areas examined, while accessibility and availability of ICT resources and support services represented a moderate concern. These results indicate that contextual conditions may constrain teachers' integration of ICT into classroom practice and are consistent with previous

Moroccan research identifying access to resources, technological facilities, training, technical support, and contextual conditions as important factors in ICT integration (Ait Hammou & Elfathi, 2021; Ismaili, 2022).

From the perspective of the Technology Acceptance Model, these patterns can be interpreted in relation to the conditions surrounding technology use. TAM proposes that perceptions of usefulness and ease of use contribute to technology acceptance and subsequent use (Davis, 1989). Although the present study did not directly test all TAM constructs, differences in the frequency with which ICT tools were used, together with reported resource-related challenges, suggest that both teachers' perceptions and their teaching environments may influence actual ICT integration. TAM therefore provides a useful interpretive framework rather than a model directly tested by the present data.

### **5.2. ICT Integration and Perceived Student Engagement**

The second research question examined the relationship between effective ICT integration and teachers' perceptions of student engagement. The analysis revealed a moderate, positive, and statistically significant association between the two variables, suggesting that higher levels of effective ICT integration were associated with higher levels of perceived student engagement. This result is consistent with previous research suggesting that technology-supported learning environments can contribute to more interactive and engaging educational experiences (Bond & Bedenlier, 2019). Soussi (2016), for example, found generally positive perceptions of ICT among Moroccan EFL teachers and learners. The study identified motivation and classroom interaction among the perceived benefits of ICT. However, the present finding should be interpreted cautiously because student engagement was assessed through teachers' perceptions rather than direct student measures. The results demonstrate an association between teachers' reported ICT integration and their perceptions of engagement rather than an objectively measured effect on students.

The correlational design also prevents causal conclusions. Although effective ICT integration was positively associated with perceived student engagement, the findings do not demonstrate that ICT integration caused increased engagement. Other factors, including teachers' pedagogical practices, technological competence, classroom conditions, and students' characteristics, may also contribute to the observed relationship. Consequently, H1 is supported in terms of a positive association, but the result should not be interpreted as evidence of a causal effect.

Overall, the findings suggest that ICT integration in the participating EFL classrooms is characterized by varied patterns of technology use and differing experiences of resource availability. They also provide exploratory evidence of a positive relationship between effective ICT integration and perceived student engagement. Given the small sample of 22 teachers and the localized setting of the Skhirat-Témara Provincial Directorate, these findings should be interpreted as context-specific rather than generalized to Moroccan EFL teachers as a whole.

## **6. Conclusion**

This exploratory quantitative correlational study examined EFL teachers' ICT use, the challenges associated with its integration, and the relationship between effective ICT integration and teachers' perceptions of student engagement in the Skhirat-Témara Provincial Directorate, Morocco. The findings from 22 high school EFL teachers provide context-specific evidence concerning ICT integration in English language classrooms.

The findings showed that teachers used a variety of ICT tools, although the frequency of use differed across technologies. Educational websites and online resources were the most frequently used among the tools examined, whereas interactive whiteboards, online quizzes and assessments, and learning management systems were used less frequently. The results also indicated variation in ICT-related challenges. Financial constraints and infrastructure-related challenges appeared relatively more pronounced, while accessibility and availability of ICT resources and support services represented a moderate concern. These findings underscore the importance of the contextual conditions surrounding ICT integration.

The correlational analysis revealed a moderate, positive, and statistically significant relationship between effective ICT integration and perceived student engagement ( $r = .533$ ,  $p = .011$ ). However, because the study employed a correlational design and student engagement was assessed from teachers' perspectives, the findings should not be interpreted as evidence that ICT integration directly causes greater student engagement.

The study highlights the importance of supporting EFL teachers with adequate access to ICT resources and continued professional development that addresses both technological and pedagogical competencies. Schools and educational authorities may also benefit from considering differences in teachers' technological contexts when planning ICT-related initiatives rather than adopting uniform approaches to implementation.

Several limitations should be acknowledged. The study involved a relatively small convenience sample of 22 EFL teachers from one provincial directorate, which limits the generalizability of the findings and may have introduced selection bias. In addition, the study relied on self-reported teacher data and did not directly measure students' engagement or academic achievement. The correlational analysis was also based on Likert-type responses and should therefore be interpreted cautiously. Future research could involve larger and more diverse samples from different regions of Morocco and incorporate students' perspectives, classroom observations, or direct measures of engagement and achievement. Such research could provide a more comprehensive understanding of ICT integration in Moroccan EFL education.

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no conflict of interest.

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