



EXPLORING PRE-SERVICE TEACHERS' EXPERIENCE WITH THE USE OF SMARTPHONES DURING THE INTERNSHIP PERIOD - CASE STUDY: CRMEF OF RABAT, MOROCCO

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Abstract:

This study intends to explore Moroccan English pre-service teachers' experience with using cell phones during their internships. Nineteen instructors were picked at random from the CRMEF of Rabat (Regional Center for Education and Training Professions). Interviews were conducted with all nineteen participants. The results displayed that trainees' preconception on the complexity of using smartphones may affect their tendency on employing this mobile tool as an instructional medium. The findings also revealed that pre-service teachers are not ready to integrate smartphones in EFL classrooms due to the lack of ICT training, distractions that smartphones bring about, and schools' policies banning the use of this gadget.

Keywords: technology, smartphones, readiness, teaching, pre-service teachers in Morocco, concerns, Moroccan education

1. Introduction

In the 21st century, the rise of ICT has changed the way people learn (Harendita, 2013). The use of ICT in the educational process can provide teachers and students with the possibility to study educationally relevant information (Kee & Samsudin, 2014). It enables them to access educational content from a variety of internet-connected resources. Nonetheless, teachers and students must have access to internet-based learning resources. According to Fu (2013), the use of ICT in the teaching-learning process can be accomplished with a variety of technologies, including PCs and mobile devices.

The usage of mobile devices for educational purposes is known as mobile learning. According to Kukulska-Hulme and Shield (2008), mobile learning is the ability to learn

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anywhere and at any time using a handheld device. According to Dehkordi (2018), mobile learning (M-learning) is a technology that is gaining significance in the teaching-learning process, particularly in language acquisition. The evidence indicates that Mobile learning is a way to learn that can be done anywhere and at any time with the help of a handheld device. Mobile Assisted Language Learning (MALL) is an extension of the term mobile learning in relation to language learning.

In this era of technological evolution, mobile learning has become a growing trend for educational use. Prospect teachers, to transform learning and cope with the technological evolution, need the adaptation to new teaching apparatuses that can shape learning and drive change. One of those devices, with the potential to transform education and cater to millennial learners' expectations, is the cellphone. The employment of cell phones in streamlined education though might be seen as a luxury by some and a tool for destruction by others; it does have useful methodological and social dimensions. Moving away from a narrative that perceives cell phones as a destructive tool in the classroom to a new thought that sees useful implications of this digital tool needs primarily the establishment of a solid theoretical and practical foundation of this digital practice in teachers' colleges. Indeed, the internship phase is seen as a determining factor for teachers' trainees to gradually get used to instructional technology practice, particularly cell phones. Regardless of the increasing call for adopting cell phones in classrooms, it is still debatable how teacher trainees are ready to deploy this novel pedagogical tool, particularly during their internship.

The current study aims to explore pre-service teachers' experience with using smartphones during their internship period by examining their attitudes, skills, and experiences related to using this technology in their teaching practices. Although the use of smartphones and ICT, in general, has matured ominously in the past decade, most teachers are unwilling or have yet to integrate smartphones into the classroom (Hsu et al., 2021). The pre-service teachers' willingness to use smartphones during their internship phase is a significant study area as it highlights teacher trainees' acceptance towards this digital pedagogical tool. The research findings will be valuable and of great help to training programs at the College of Teachers (CRMEF) in Morocco with particular details on smartphone' use in the classroom.

2. Literature Review

2.1 Uses of Smartphones in EFL Classrooms

The development of mobile devices and apps has led to new mobile learning opportunities that have grown significantly in the past few years (Al-Awidi & Aldhfeeri, 2017). In the past 20 years, there has been a significant rise in the use and acceptance of mobile devices for learning and teaching. Students and teachers worldwide use smartphones more than any other mobile tool. Also, smartphones now have more advanced features like cameras and sensors that make detecting motion, location, access to social networks, web searching, and augmented reality easier. This makes it more

likely that the device could be used as a teaching tool, changing how people teach and learn (Al-Awidi & Aldhafeer, 2017).

While most students are familiar with technology owing to their upbringing, the use of cellphones during the internship phase can be advantageous for both teachers and students (Iqbal, 2017). Additionally, Duncan, Hoekstra, and Wilcox (2012) highlight that smartphones can facilitate learning in numerous ways during internships.

It is crucial to highlight, however, that the usage of technology in educational settings can have both beneficial and bad impacts. For example, a Stanford University research revealed that giving students with one-on-one access to gadgets in the classroom can improve learning results, particularly for at-risk kids (Barnwell, 2016). On the other hand, the presence of smartphones in a study area, even when they are not in use, can impair learning and problem-solving [4].

In conclusion, while the usage of cellphones during internships can be beneficial, it is essential to carefully weigh the advantages and disadvantages of integrating technology into educational settings. It is essential to strike a balance between harnessing the advantages of technology and avoiding its potential distractions and bad impacts on learning.

2.2 Benefits of Using Smartphones in EFL Classrooms

Smartphones' use can be useful during the internship phase, particularly for students who grew up with technology (Devices in the Classroom, n.d.). Here are some examples of smartphone usage during internships:

Students can use apps such as Remind101 to stay on top of their assignments and due dates (Graham, 2020). This can help them accomplish their assignment on time and avoid scrambling at the last minute. Teacher trainees for example can deploy their smartphones to make short videos and other content with the potential to exhibit their digital skills in performing teaching tasks during their internship. Interns can also use their cell phones to access important documents, presentations, and other materials related to their internships. This is a creative way for novice teachers to keep track of their progress and growth. Yet, many students on the other hand prefer to view course materials on their smartphones rather than laptops or desktop PCs. Smartphones in a nutshell are a useful tool for students during their internship phase, so long as they are used in a manner that promotes meaningful learning and growth.

2.3 Drawbacks of Using Smartphones in EFL Classrooms

Mobile learning's vivid integration into teaching depends much on teachers' willingness and preparedness. Al-Furaih and Al-Awidi (2020) argued that teachers must be more willing to use mobile learning as with no prior motivation makes this novel pedagogical paradigm is ineffective. Without a doubt, teachers encounter multiple challenges in the course of integrating smartphones as an educational device. These challenges include the need for arrangements concerning the adoption of smartphones in learning and teaching. In other words, the integration requires substantial changes and transformation in the

learning institutions and instructors' mindset and dispositions. Alghazi et al. (2020) added that a teacher who does not know the benefits of using new technologies in the classroom may need to understand the benefits of the above tools or learn how to use them to open up new teaching opportunities. Alzubi (2019) hence suggested incorporating mobile technology in tertiary education, with the aim to equip teachers with the necessary skills to champion this novel paradigm of teaching.

In 2022, the article titled "Cell phone use among students: Two sides of the same coin." was published in the Indian Journal of Forensic and Community Medicine. The article looks at both the pros and cons of students using cell phones. It shows all sides of the issue. The research indicates that, despite the fact that mobile phones are a beneficial teaching tool, they also have downsides that must be effectively handled to prevent their negative influence.

2.4 Impediments to the Use of Smartphones in Schools

The integration of smartphones in EFL/ESL learning environment is a debatable topic. Some advocate these integrations thanks to the fruitful gains this digital tool brings to the teaching and learning context. However, several schools, especially in Morocco ban the use of smartphones in EFL classrooms for several reasons. Students' use of smartphones for activities other than learning, such as social networking and messaging, is a major source of disruption in the classroom. They may have trouble paying attention in class as a result, which can have a detrimental effect on their grades (Ophir et al., 2009).

One more is that kids can use their phones to cheat on tests by communicating with each other or by seeking answers online. This is confirmed by three studies conducted by McAfee (2012), Pickett and Thomas (2006), and St. Gerard (2006). The authors reported that several students used their cellphone to cheat in school. This can give certain pupils an unfair advantage and compromise the validity of the evaluation procedure. Moreover, EFL teachers may find it challenging to manage their classes when students use cellphones. Students may be disengaging from the lesson because they are using their phones for activities other than taking notes. This can make it difficult for educators to provide a conducive learning atmosphere for their students (Rosen et al., 2013; Willcocks & Redmond, 2014).

According to the research conducted by Beland and Murphy in 2016, there is a correlation between cell phone use and academic performance. The study found that when cell phones were banned from classrooms, children' standardised test scores increased by an average of 6 percent, and by more than 14 percent for low-achieving pupils. In addition, the study indicated that limiting mobile phone use in schools could dramatically narrow the achievement gap between kids with high and low academic performance.

In conclusion, the study by Beland and Murphy emphasises the harmful impact of cell phone use in the classroom on students' academic performance, particularly for low-achieving students. Mobile phone bans in schools might substantially raise

standardised test scores and narrow the performance gap between high- and low-achieving kids.

Overall, there are a number of good reasons why some schools ban the use of smartphones in English as a Foreign Language (EFL) classrooms, such as reducing distractions, stopping cheating, making the classroom a more welcoming place to learn, and giving teachers more control over how the class works.

3. Research Methodology

This study adopted a qualitative research design. It aims at understanding in-depth teacher trainees' experience of using smartphones as a digital pedagogy in their internship stage (Croswell, 2007).

3.1 Target Population

The participants in this qualitative study are 19 pre-service teachers (twelve females and seven males, aged between 21 and 28) from Rabat's College of Teachers (CRMEF). The participants were selected randomly.

3.2 Research Questions

- 1) What are the most common uses of smartphones among trainee teachers during their internship period?
- 2) How does the use of smartphones, by trainee teachers, as a tool for language teaching during the internship period impact students' learning outcomes in EFL classroom?
- 3) What barriers do trainee teachers encounter when integrating smartphones in EFL classrooms?

3.3 Data Collection

The study used semi-structured interviews that lasted 20 minutes at the participant's convenience. The researchers took into consideration all the necessary ethical procedures including validity and reliability standards.

3.4 Data Analysis

Initially, interviews with 19 participants were conducted. The responses were first recorded, and transcribed. Then, a thematic analysis was conducted. To improve the reliability of the findings, the research followed the coding strategy which resulted in almost similar themes guaranteeing the reliability of the results. The study followed the six main steps of the coding strategy. These steps are:

- A. Extensive coding of the responses;
- B. Establish a better understanding of responses;
- C. Assigning of preliminary codes to the data to define the content;
- D. Identifying different themes;

- E. Reviewing the identified patterns;
- F. Naming of prominent themes, and recording the findings of the research (Terry et al., 2017).

To identify themes from the coded data, the researchers deployed strategies based on words, word repetitions, and key-words-in-contexts (KWIC) (Terry et al., 2017). By using the above techniques, the study identified key words and then systematically searched a series of texts to identify all the times the identified word or phrase was mentioned. Every time a keyword was identified, a copy of the word and its context was made. Themes were thus identified by physically grouping the illustrations into classes of like meaning (Terry et al., 2017).

4. Results and Discussion

This study aims to explore pre-service teachers' experience and if they are ready to use smartphones in their classes. The study assessed future teachers' apprehensions regarding the integration of smartphones. The results indicated that the trainee teachers who knew about the adoption of smartphones and their impact on teaching thought that integrating smartphones as a teaching tool could improve their practices. This shows that teachers' willingness to use smartphones as an innovative method is tied to their worries.

4.1 Demographics

Table 1 represents the number of surveyed respondents for the current study, which showed that there were 19 respondents in total, out of which 7 were males and 12 were females, with their ages varying from 21 to 28 years old. For their educational degrees, 11 participants held bachelor's degrees, while 8 participants got master's degrees.

Table 1: Demographics

No of Responses	Gender	Age	Education Degree
1	Female	25	Master
2	Female	24	Master
3	Male	25	Master
4	Female	21	Master
5	Female	28	Master
6	Male	21	B.A
7	Female	23	B.A
8	Male	26	B.A
9	Female	26	B.A
10	Female	22	B.A
11	Female	24	Master
12	Female	25	B.A
13	Female	22	B.A
14	Female	22	B.A
15	Female	24	Master
16	Male	27	Master
17	Male	22	B.A

18	Male	25	B.A
19	Male	24	BA

RQ1: What are the most common uses of smartphones among trainee teachers during their internship period?

The majority of respondents indicated that they use cell phones to access information and files, send and receive emails, take notes and prepare for presentations, surf the internet, etc. during their internships. Obtaining information was the activity respondents performed most frequently throughout their practicum period. The majority of respondents stated that smartphones offer a quick and convenient way to obtain information from various locations. For example, one participant reflected on this saying:

"Yes. Mostly receiving documents from my host teacher to prepare my lessons via WhatsApp chat, and also creating and sending my own lesson documents and sending them to my host teacher again via WhatsApp chat to check if they're appropriate for the students in advance"

Meanwhile, another respondent said:

"No, I have never used it as an essential tool in the internship. However, sometimes I may use it to share with the coordinator of the class some materials to share them later on with his/her classmates."

The third respondent made it clear with his statement as:

"If you mean using the mobile phone at the training of the CRMEF, yes, I do use the mobile phone as a means of communication with the professors. I also use it to receive and share materials, to send emails, and sometimes to attend an online session or event. you mean using the mobile phone at the practicum, the answer is no. I don't use it"

Similarly, another participant indicated:

"Yes, I use it for making presentations."

It has been determined that during the practicum phase, most students use their smartphones to do various jobs, communicate with their class and teachers, access files, and share resources. According to previous research (Iqbal, Khan, and Malik, 2017; Iqbal & Qureshi, 2012; Kibona & Rugina, 2015), smartphones are helpful during the internship phase, and most students use them since most of them grew up with technology. The findings obtained are also in line with a study by Carr (2011) that demonstrates how heavily today's university students rely on technology. In other words, people prefer to read on the internet rather than in a book and operate as "talented hunters" when

searching for information on the web. Compared to their host instructors, the learning and teaching needs of these young teacher candidates, who are digital natives, are polar opposites. So, their host teachers need training on how to use ICT to improve innovative teaching methods and meet the critical learning needs of digital natives.

According to the study's findings, the majority of respondents claim that their host teachers do not engage students with smartphones. Instead, they choose to conduct lessons via laptop or projector. As stated by one of the respondents:

"No, my host teacher mainly uses a PC and a projector."

Several trainees claimed that their host teachers use mobile devices to help them teach classes and share information like class notes through social apps, as one respondent said.

"Not really. As far as my knowledge goes, they mostly used it to send lessons, worksheets, and homework via WhatsApp"

Even so, teachers who have taught for a long time use smartphones sparingly to engage students and teach lessons. However, this lack of interest might be because most teachers have never used smartphones in the classroom or are digital immigrants. Duncan, Hoekstra, and Wilcox (2012) argued that it is of importance to encourage all teachers to use mobile devices and apps in the classroom because they can help students work well on their own and in groups and increase productivity and interaction between learners while allowing teachers (Manuguerra & Petocz, 2011) to enhance their classroom management skills.

RQ2: How does the use of smartphones, by trainee teachers, as a tool for language teaching during the internship period impact students' learning outcomes in EFL classroom?

A. Benefits of Using Smartphones in EFL Classrooms

There are a number of advantages that could come out of using smartphones in education. According to the current survey results, they can give students a more interesting and interactive experience. This is due to the fact that many smartphone applications are designed with this specific purpose in mind and offer features such as touch-screen control and voice input, which allow teachers to create more dynamic lessons. One of the respondents reflected on this:

"Yes, I believe it is essential as it can be fun and a break from traditional ways of learning it can be used to improve students' listening skills and also using programs like kahoot etc. can be seen as productive for a lesson closure."

Another advantage is that teachers can use smartphones to monitor student progress. Software like Learning Management Systems (LMS) makes this possible by letting teachers manage and keep track of their student's progress and engagement in real-time. In addition, smartphone apps can be used for quizzes and assessments, making them more efficient for evaluating students' knowledge than traditional paper exams. In short, smartphone technology is a useful tool for students and teachers, with the creativity to make digital materials for their students. As stated by one of the respondents:

"Smartphones have various advantages in the learning/teaching process, they are an effective tool that helps ease the learning and ameliorate students' level. Besides, integrating smartphones in learning is important as it shows that smartphones can also be used for educational purposes."

Using smartphones in EFL classes could be suitable for both students and teachers in a lot of ways. Most of those who answered think smartphone technology can help students learn and improve their understanding. Incorporating smartphones into traditional classroom activities enhances enjoyment, motivation, and student engagement. Also, it works with different ways of learning by giving different tasks for visual learners, auditory learners, etc. When another respondent thought about the benefits of using smartphones in EFL classes, he stated:

"I noticed that it proves to be more effective with common core students as they like the idea and they pay attention more. At the start of class, when they are still talking or moving around when they see me grabbing my phone or playing something on it they pay attention faster. Also, my host high school does not have equipment such as projector, speakers... so my smartphone proves to be an easy way to use those visual and auditory aids without the hassle."

Overall, using smartphones in EFL classrooms has many rewards. Some of these benefits are trouble-free and can be added to regular classroom activities without extra tools. However, these results support the claims made in the literature. In their study, Bere and Rambe (2019) looked at how ready pre-service teachers at a college of teachers were for mobile learning. The findings revealed that future teachers' readiness did not change by gender and that they used digital devices frequently for several purposes, such as communication, learning, getting information, and making plans. Brown (2018), who looked at how teachers in higher education see mobile learning, came to the same conclusions as the present study. He concluded that mobile learning techniques and tools were good for teaching and learning, helped frame classroom instruction strategies, were helpful for professional learning, and made it easier for teachers and students to talk to each other.

Since smartphones are so accessible, they can help substitute for more traditional educational materials like pen and paper. Writing on the phone may be easier and faster than using a pen and paper. This is especially true for tasks that require quick responses or creativity. Generally, smartphones have potential gains in boosting student learning outcomes. However, more research is needed to determine the exact effects of smartphone use on EFL classroom activities.

Another respondent said while reflecting on the advantages of smartphones in education:

"Because they add more diversity and open the doors for more possibilities when teaching a lesson."

B. Drawbacks of Using Smartphones in EFL Classrooms

What has been said earlier is just one side of the picture! In fact, our current study tries to display different perspectives on using smartphones in teaching and learning. One concern is the increased distraction that smartphones can cause.

As was already said, using smartphones in EFL classes has been shown to be one of the main reasons why students do not pay attention and miss classes. Another problem is that most smartphones only have a little storage space, which can limit how much information students can store and use while studying. Furthermore, one of the participants who answered the survey made it clear in his statement that students can lose focus when they use smartphones:

"Students can deviate from the initial task and end up accessing other things"

There is no correct answer to this question because everyone has a different way of learning and different interests, preferences, and habits. Some students might look for new information or find other tasks more interesting than the original task, while others might do things, they know how to do to pass the time. Ultimately, it is up to each individual student to learn how to approach and interact with their work. The finding of the present research is consistent with some past studies that suggested using smartphones in educational activities can lead to lower grades. For example, Felisoni D.D. and Godoi A.S. (2018) found a negative relationship between mobile phone usage and students' academic performance. The study shows that when students consistently use their phones, they lose interest in school, which leads to lower grades. Meanwhile, a respondent said:

"Yes, there are some disadvantages of using smartphones in education-related activities for example when we overuse them or when we use them without a clear objective or purpose."

On the other hand, distractions, lack of focus, less interest in learning materials, and a lower retention level are the main issues with using smartphones in education. In this respect, if a student is looking at their phone while they are reading or listening to a lesson, it can be challenging to focus on the material. This distraction can lead to poor grades and decreased learning skills. Additionally, when students are trying to learn something new, social media and games can be very distracting. If a student spends all of their time playing games or scrolling through their social media feeds instead of studying for an exam, it will likely have negative consequences on their lives. These results match up well with studies that have already been done on how smartphones distract students and make them less interested in schools. For instance, Tindell and Bohlander (2012) surveyed 269 college students and claimed that using the cell phone in the classroom leads to distraction. The authors found that if learners spend so much time in sending messages to their peers or friends, they will lose focus in class. Similarly, Campbell conducted research in 2006 on the use of mobile phones in a college learning context, which explored some of the issues related to the use of mobile phones in this setting. The author concluded that while mobile phones have become an integral part of young people's lives and can have positive impacts on maintaining social connections, their use can be distracting in college learning contexts and may bother both students and teachers. This displayed how essential it is to have formal rules that limit the use of technology in EFL classrooms.

In general, several shortcomings are linked to using smartphones in the teaching and learning process. Yet, there are also some advantages to using smartphones in education. For example, they can help access information quickly, keep track of appointments, and communicate with friends and family, adding fun and variety to learning. Ultimately, it is up to each student to decide how they will approach their studies using smartphones or other technological devices.

RQ3: What barriers do trainee teachers encounter when integrating smartphones in EFL classrooms?

The results of this study help us understand how pre-service teachers feel and what they think about using smartphones in their classrooms. The trainees and host teachers were not worried about controlling the use of smartphones in the classroom. On the contrary, they expressed significant personal and institutional concerns. The above means that the teachers were more concerned about their own apprehensions since the schools had not formally launched the use of smartphones as a project in the institutions.

As one of the respondents said:

"My host teacher will not allow me to use the smartphone in the classroom because the school bans its use."

Future teachers wanted to learn more about the smartphone, its impacts, and the requirements for its adoption. They needed to know about the available resources if they

decided to use smartphones in their teaching practices. Furthermore, teachers were concerned that many students either do not have smartphones or, if they do, they may not have an internet connection.

As one of the respondents listed several challenges such as:

“Host teachers might oppose allowing teacher trainees to use their smartphones inside the class. Also, students might not be responsive to the trainee teacher while using the smartphone. Another challenge is that students might not have their own smartphones which can hinder the whole process. Finally, teacher trainees might not be experienced with using smartphones while teaching.”

The above findings is compatible with different studies. For example, Beland and Murphy (2016)'s study on how cell phones affect students' academic performance found that when schools banned cell phone use in the classroom, standardized test scores went up by about 6% on average and by more than 14% for low-achieving students. The same might be applied to (Wilmer et al., 2017) reporting that the reasons behind students' low academic performance are associated with the higher-level use of smartphones for different purposes such as sending messages excessively, watching and sharing videos, etc.

Another research conducted by Al-Awidi and Aldhafeeri in 2017 indicated that when teachers used technology, they were more concerned with their status, incentives, and actual or possible teaching results. Based on this, the authors highlighted that learning institutions that support 'Bring Your Own Device' (BYOD) may be prevalent. Simply put, the most significant benefit of the Bring Your Own Device (BYOD) initiative is that it makes teachers more productive and happier by reducing problems and giving them the freedom to find their own way to innovate.

Further, the current study's results reveal that teachers have a solid aspiration to integrate mobile phones into their teaching practices and possess ideas on how to foster the above transformations appropriately. On the other hand, teachers are aware of how smartphones can be used and even think about how this new technology might affect how well their students do in school. Most instructors claimed they would love to make their learners happy and improve their contentment concerning their anticipated responsibilities when applying smartphone technology in the classroom.

The findings of the current research show that there are notable concerns regarding the impact of adopting smartphones. In this sense, schools need to establish a creative pedagogy while allowing for instructors to air their apprehensions regarding the effects of using mobile phones in the classroom approach (Nikolopoulou et al., 2021). Moreover, the results demonstrate that the pre-service teachers were mostly concerned about how to use cell phones in their lessons. In other words, they raised questions about how such a tool might enable them as teachers to reach teaching excellence and meet students' different learning needs.

5. Conclusion

The present study is qualitative research seeking to investigate Moroccan English trainee teachers' experience with the use of cell phones. Though the findings indicate that most participants agreed that integrating smartphones into instruction is an excellent idea, they are still confused about approaching this digital pedagogical tool. As can be deduced from the results, trainee teachers are reluctant to use smartphones due to the fact that they lacked the necessary skills and training to use mobile devices effectively in the classroom. Therefore, pre-service teachers must be equipped with technological skills in order to succeed in modern classrooms. In order to address the issue of pre-service teachers lacking the necessary skills, one solution could be to involve them in blended learning contexts to allow for opportunities to develop technological skills through experiential modeling and reflective practice. Another reason for the trainees' hesitancy to use smartphones is the policies of schools that ban the use of this gadget in EFL classrooms. Finally, pre-service trainees are not ready since smartphones can cause distractions and lead to a lack of focus among students, which can negatively affect the learning outcome.

It is recommended that careful consideration and planning are necessary before integrating smartphones into EFL classrooms. Teachers need to be trained in the effective use of technology in the classroom, and policies regarding smartphone use in schools may need to be revised. Additionally, educators should be aware of the potential negative effects of smartphone use on student learning and should take steps to minimize these effects.

In brief, the current study has a few restrictions that future research should consider. First, the research used randomly selected teachers from one college of teachers, CRMEF of Rabat. Hence, the outcomes may only apply to colleges. In addition, the survey focused only on the period of the internship stage and not the whole academic year. Moreover, the results of this study are based on interviews with 19 pre-service teachers from the English department only, excluding other departments.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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References

- Al-Awidi, H., & Aldhafeeri, F. (2017). Teachers' Readiness to Implement Digital Curriculum in Kuwaiti Schools. *Journal of Information Technology Education, 16*(1).
- Al-Furaih, S. A., & Al-Awidi, H. M. (2020). Teachers' change readiness for the adoption of smartphone technology: Personal concerns and technological competency. *Technology, Knowledge and Learning, 25*(2), 409-432.
- Alghazi, S. S., Wong, S. Y., Kamsin, A., Yadegaridehkordi, E., & Shuib, L. (2020). Towards sustainable mobile learning: A brief review of the factors influencing acceptance of the use of mobile phones as learning tools. *Sustainability, 12*(24), 10527.
- Alzubi, A. (2019). Teachers' perceptions on using smartphones in English as a foreign language context. *Research in Social Sciences and Technology, 4*(1), 92-104.
- Barnwell, P. (2016, April 27). Should Smartphones Be Banned from Classrooms? Do Smartphones Help or Hurt Students' Academic Achievement? - the Atlantic. <https://www.theatlantic.com/education/archive/2016/04/do-smartphones-have-a-place-in-the-classroom/480231/>
- Beland, L. P., & Murphy, R. (2016). Ill communication: Technology, distraction & student performance. *Labour Economics, 41*, 61-76.
- Bere, A., and Rambe, P. (2019). Understanding mobile learning using a social embeddedness approach: a case of instant messaging. *Int. J. Educ. Dev. Using Inf. Commun. Technol. 15*, 132-153.
- Brown, S. (2018). An investigation of faculty perceptions about mobile learning in higher education (Doctoral dissertation). Nova Southeastern University. Retrieved from NSUWorks, Abraham S. Fischler College of Education.
- Campbell, S. (2006). Perceptions of Mobile Phones in College Classrooms: Ringing, Cheating, and Classroom Policies. *Communication Education, 55*(3), 280-294.
- Carr, N. (2011). *The shallows: What the internet is doing to our brains*. WW Norton & Company, New York/London.
- Christensen, R., & Knezek, G. (2017). Validating a mobile learning readiness survey: Assessing teachers' dispositions toward adoption. *Journal of Digital Learning in Teacher Education, 33*(4), 148-159.

- Dehkordi, M. E. (2018). Iranian Male and Female EFL Learners' Perceptions toward the Use of Mobile Assisted Language Learning. *Journal of Applied Linguistics and Language Research*, 5(3), 56–66.
- Devices in the Classroom. (n.d.). *Devices in the Classroom* | Derek Bok Center, Harvard University. <https://bokcenter.harvard.edu/technology-and-studentdistraction>
- Duncan, D. K., Hoekstra, A. R., & Wilcox, B. R. (2012). Digital devices, distraction and student performance-does cell phone use reduce learning? In *American astronomical society meeting abstracts# 219* (Vol. 219).
- Felisoni D. D., Godoi A.S. (2018). Cell phone usage and academic performance: An experiment *Computers and Education*, 117, pp. 175-187.
- Fu, J. S. (2013). ICT in Education: A Critical Literature Review and Its Implications. *International Journal of Education and Development Using Information and Communication Technology*, 9(1), 112–125. <https://doi.org/http://ijedict.dec.uwi.edu/viewarticle.php?id=1541>
- Graham, E. (2020, June 19). *Using Smartphones in the Classroom* | NEA. <https://www.nea.org/professionalexcellence/student-engagement/tools-tips/using-smartphones-classroom>
- Hao, Y., & Lee, K. S. (2017). Inquiry of pre-service teachers' concern about integrating Web 2.0 into instruction. *European Journal of Teacher Education*, 40(2), 191-209.
- Harendita, M. E. (2013). Why resist? A closer look at Indonesian teachers' resistance to ICT. *International Journal of Indonesian Studies*, 1(2), 79–109. Retrieved from <http://artsonline.monash.edu.au/indonesian-studiesjournal/files/2013/11/3-Monica.pdf>
- Hsu, C. Y., Liang, J. C., Chuang, T. Y., Chai, C. S., & Tsai, C. C. (2021). Probing in-service elementary school teachers' perceptions of TPACK for games, attitudes towards games, and actual teaching usage: a study of their structural models and teaching experiences. *Educational Studies*, 47(6), 734-750.
- Iqbal, S., Khan, M. N., & Malik, I. R. (2017). Mobile phone usage and students' perception towards M-learning: A case of undergraduate students in Pakistan. *International Journal of E-Learning & Distance Education*, 32(1). 1–16.
- Kee, C. L., & Samsudin, D. Z. (2014). Mobile Devices: Toys or Learning Tools for the 21 Century Teenagers. *The Turkish International Journal of language Education*, Vol. 4 No.1, March 2020 pp. 38-47 *Online Journal of Educational Technology*, 13(3), 107–122.
- Kukulka-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3). <https://doi.org/10.1017/S0958344008000335>
- Manuguerra, M., & Petocz, P. (2011). Promoting student engagement by integrating new technology into tertiary education: The role of the iPad. *Asian Social Science*, 7(11), 61.

- McAfee. (2012, June 25). The digital divide: How the online behavior of teens is getting past parents. <https://docplayer.net/16377547-The-digital-divide-how-the-online-behavior-of-teens-is-getting-past-parents.html>
- Nikolopoulou, K., Gialamas, V., Lavidas, K., & Komis, V. (2021). Teachers' readiness to adopt mobile learning in classrooms: A study in Greece. *Technology, Knowledge and Learning*, 26(1), 53-77.
- Ophir, E., Nass, C., & Wagner, A. D. (2009). Cognitive control in media multitaskers. *Proceedings of the National Academy of Sciences*, 106(37), 15583-15587.
- Pickett, A. D., & Thomas, C. (2006). Turn off that phone. *American School Board Journal*, 193(4), 40-44.
- Rosen, L. D., Lim, A., Carrier, M., & Cheever, N. A. (2011). An empirical examination of the educational impact of text message-induced task switching in the classroom: Educational implications and strategies to enhance learning. *Psicologia Educativa*, 29(2), 163-177.
- Seifert, T. (2018, March). Smartphone implementation from lecturers, teachers, students and pupils' perspectives. In *Society for Information Technology & Teacher Education International Conference* (pp. 795-801). Association for the Advancement of Computing in Education (AACE).
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. *The SAGE handbook of qualitative research in psychology*, 2, 17-37.
- Tindell, D., & Bohlander, R. (2012). The use and abuse of cell phones and text messaging in the classroom: a survey of college students. *College Teaching*, 60(1), 1-9.
- Wahyuni, S. (2019, September). Examining Pre-Service Teachers' Use of Technology: Implications for Curriculum Development. In *UNNES International Conference on ELTTL* (pp. 278-284).
- Wilmer, H. H., Sherman, L. E., & Chein, J. M. (2017). Smartphones and cognition: A review of research exploring the links between mobile technology habits and Cognitive functioning. *Frontiers in Psychology*, 8(605), 1-16.

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