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The Role of Smartphones in Enhancing English Language Learning: A Case Study of Second-Year EFL Students at the University of Ain-Temouchent

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Dedication

To my father whose quiet strength lives in me.

To my mother for her endless love and silent courage.

To my brothers my lifelong companions in laughter and resilience.

To my teachers and friends thank you for lighting the path with patience and care.

And to life uncertain, beautiful, and always moving.

Bahaa eddine

This work is gifted to To my parents

To my partner

And everyone who helped us on this work

Ouhcine

Abstract

As mobile technologies continue to permeate every aspect of modern life, smartphones have emerged as powerful educational tools capable of transforming traditional learning environments. In the context of language education, their integration offers new avenues for enhancing learner engagement, autonomy, and performance. The objective of this study is to examine the role of smartphones in enhancing English language learning among second-year students in the Department of Letters and English Language at BelhadjBouchaib University, Ain-Temouchent.This research addresses three main aspects:first, it explores the extent to which smartphones contribute to learners'motivation and improvement in language performance; second, it investigates students' perceptions and attitudes toward the integration of smartphones into their educational experience. Third, it evaluates how instructors perceive the impact of smartphone use on student engagement and learning outcomes in the EFL classroom. To achieve the aims of this study, a mixed-methods approach was employed, combining a questionnaire administered to second-year students with semi-structured interviews conducted with EFL instructors to gain professional insights into the educational implications of smartphone use. The findings indicate that students generally view the use of smartphones positively in the context of English language learning. Furthermore, the results suggest that smartphones, when used appropriately, can effectively promote motivation, vocabulary development, and learner autonomy. Instructors also acknowledged both the benefits and challenges of incorporating smartphones into language instruction. This study offers practical recommendations for leveraging smartphone technology to enhance EFL learning in Algerian higher education settings.

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List of Acronyms and Abbreviations

AI – Artificial Intelligence

CALL – Computer-Assisted Language Learning

EFL – English as a Foreign Language

ESP – English for Specific Purposes

GPA – Grade Point Average

GPU: Graphics Processing Unit.

GPS – Global Positioning System

ICT – Information and Communication Technology

IELTS – International English Language Testing System

L1 – First Language (Native Language)

L2 – Second Language

MALL – Mobile-Assisted Language Learning

MOOC – Massive Open Online Course

PDF – Portable Document Format

PERMA – Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment

SLA – Second Language Acquisition

SMS – Short Message Service

TOEFL – Test of English as a Foreign Language

UNESCO – United Nations Educational, Scientific and Cultural Organization

LCD: Liquid Crystal Display.

LED: Light Emitting Diode.

RAM: Random Access Memory.

Wi-Fi – Wireless Fidelity

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General Introduction

The field of English Language Teaching (ELT) has seen significant progress in recent decades, particularly with the integration of technological advancements that have reshaped instructional methods and learner engagement. Among the most transformative tools contributing to this shift is the smartphone a widely accessible, multifunctional device that has become increasingly prominent in language education. As part of the broader field of Mobile-Assisted Language Learning (MALL), smartphone use supports learning beyond traditional classroom settings, offering learners greater flexibility, interactivity, and autonomy. In English as a Foreign Language (EFL) contexts where exposure to authentic language input and communicative practice may be limited smartphones provide valuable resources such as language learning apps, online dictionaries, social media platforms, and multimedia content that cater to diverse learning preferences and needs.Recent research highlights the educational potential of smartphones, particularly in enhancing learner motivation, collaboration, and personalized learning experiences. However, the adoption of

these tools is not without challenges. Issues such as digital distractions, lack of instructional guidance, and varying levels of technological literacy can hinder the effectiveness of smartphone-assisted learning. In the Algerian higher education context, where the integration of Information and Communication Technology (ICT) remains inconsistent, the role of smartphones in EFL learning raises important questions about both their potential and limitations.This thesis, entitled "The Role of Smartphones in Enhancing English Language Learning: A Case Study of Second-Year Students at the Department of Letters and English Language, University of Ain-Temouchent, BelhadjBouchaib," seeks to explore the pedagogical, psychological, and technological dimensions of smartphone use in English language learning. It aims to assess how smartphones influence learners' motivation, engagement, and academic performance, as well as to examine students' attitudes toward incorporating these devices into their educational experiences.

Research Questions:

The study addresses the following key questions:

1. How do second-year EFL students at the Department of Letters and English Language at University of Ain Temouchent, use smartphones for English learning purposes?

2. How smartphones can be considered effective tools for supporting English language learning at the university level?

Research hypotheses:

1. Smartphones are commonly used by EFL students to access online dictionaries, educational apps, record lectures, take notes, and communicate with peers for academic purposes.

2. Smartphones can be effective learning tools, depending on how they are used and the extent of teacher guidance.

Research Objectives

The primary objective of this study is to investigate how second-year EFL students at the University of Ain Temouchent use smartphones in their English language learning. It seeks to explore the ways in which smartphones are integrated into students' academic activities and to identify the perceived benefits and drawbacks of their use in the EFL context. Additionally, the study aims to understand both students' and teachers' attitudes toward the incorporation of smartphones into language education. Finally, it examines the psychological effects associated with smartphone use, such as motivation, distraction, and anxiety, to provide a more comprehensive view of their impact on the learning process.

Review of Literature:

Mobile Learning, Smartphone Use, and Psychological Effects.

1.1 Introduction

This introductory chapter seeks to elucidate the primary concepts associated with mobile learning and the smartphone. In the initial section, the researchers will present concise definitions of information and communication technology, mobile learning, and smartphones. Subsequently, they will explore the components of smartphones, their applications, as well as their respective advantages and disadvantages. In the latter part of the chapter, the researchers will examine the psychological impacts of smartphone usage and ultimately provide an analysis of the smartphone's role in the educational process.

1.2 Smartphones definition

The smartphone plays a significant role in the acquisition of foreign or second languages, extending beyond mere facilitation of communication to encompass the essential knowledge required for constructing a new linguistic framework. It is a compact device that includes advanced and sophisticated features that go beyond just making phone calls and sending or receiving text messages; they generally include a touch screen, an interface, and an operating system, along with a means of internet access to download various applications. At its core, a smartphone is a portable computing device with a touch screen interface, which removes the limitations associated with being at home or in the office (Oxford dictionaries, com, 2015). Litchfield 2010 provided a definition of a smartphone as a device that operates on an open operating system and is consistently connected to the internet. Since smartphones offer a vast array of functionalities, they necessitate advanced software akin to that of a computer operating system; the smartphone's software manages phone calls, operates applications while also providing configuration options for users to synchronize data with their computers and update their smartphone's software.

- ## 1.2.1 Smartphones Components

Considering the vast array of smartphones available today, it revolves around various designs, features, cameras, display quality, performance, battery longevity, and many other elements that consumers seek. Nevertheless, what happens beneath these mobile computing devices is equally crucial, and understanding the fundamental layers of hardware that enable the device to operate is still vital. Thus, perhaps the most evident components of a contemporary smartphone are its display, and while every detail is visible on the exterior, it is, in fact, an internal part of the device. The display technologies found in today's smartphones fall into two primary categories:

•Those utilizing LCDs (IPS technology and its variations)

•Those utilizing LEDs (AMOLED or Super AMOLED and its variations)

(https://fossbytes.com/whats-inside-smartphone-depth-look-parts-poweringeveryday)

Typically, phone batteries employ lithium-ion technology, which can be either removable or non-removable in mobile devices. With these batteries, considered a significant component of a smartphone, owners need not be concerned about ‘calibration’ or ‘testing’ issues that plagued nickel-based cells. Nevertheless, this does not imply that current-generation batteries are devoid of their own challenges, and users must exercise great caution when handling and utilizing volatile components like these. The SoC is arguably the most critical component found in a smartphone, and some users might mistakenly identify it as merely the processor of the device. However, it encompasses much more; the SoC not only includes the smartphone’s CPU, but also the GPU, LTE modem, display processor, video processor, and other silicon elements that transform it into a functional ‘system’ within a phone.

No smartphone can operate without RAM (Random Access Memory) and storage memory (system storage). To begin with, the RAM; the majority of mobile devices are equipped with LPDDR3 or LPDDR4, while certain high-end smartphones come with LPDDR4X RAM. 'LP' signifies 'Low-Power,' which lowers the overall voltage of these chips, enhancing their efficiency and providing mobile phones with extended battery life. Regarding internal storage, it exists as flash memory, starting from 32GB and potentially reaching up to 256GB in some phones. Naturally, as user demands rapidly escalate in line with their storage needs, smartphone manufacturers will significantly increase the amount of RAM present in their devices. Since smartphones are fundamentally phones, they require communication components to send and receive text messages and calls. This is where modems play a role, and every SoC manufacturer offers their own brand of modems, including Qualcomm, Samsung, Huawei, and several more.

How do these devices function and what are their main components?

All smartphones come equipped with both rear-facing and front-shooting cameras. A smartphone consists of three main components:

The sensor detects light.

The lens refers to the element through which light enters.

•The image processor.

While the megapixels on the smartphone remain a significant aspect of the camera, they are less critical than they once were. Instead, the main limiting factor is the camera sensor of the phone and its sensitivity when light travels through the lens. There are five primary sensors in a smartphone that enable it to provide you with the functionality of a

'touch-enabled smart device'. The names of these sensors and their significance have been outlined below:

•Accelerometer: Utilized by applications to recognize the device's orientation and movements, in addition to facilitating features like shaking the phone to switch music.

•Gyroscope: Collaborates with the Accelerometer to identify the rotation of your phone, for functions such as tilting the phone to play racing games or to view a movie.

•Digital Compass: Assists the phone in determining the North direction, for mapping/navigation purposes.

•Ambient Light Sensor: This sensor automatically adjusts the screen brightness in accordance with the surrounding light and aids in conserving battery life. This also clarifies why your smartphone's brightness decreases in dimly lit environments, thereby helping to alleviate eye strain.

•Proximity Sensor: When a call is active and the device is brought close to your ears, it automatically locks the screen to prevent unintended touch commands.

(https://fossbytes.com/whats-inside-smartphone-depth-look-parts-poweringeveryday)

- ## 1.2.2. Some beneficial applications for Students

In today's world, with the remarkable advancement of technology, there seems to be an application for nearly everything, which can enhance student life by making it easier, more affordable, safer, and enjoyable. Whether students need assistance with note-taking, studying, waking up punctually, or staying fit, the following examples showcase several applications that students utilize. Not long ago, students in lectures had to dedicate all their

time to frantically writing on notepads to ensure they captured every critical piece of information. Then technology evolved, and now lecture capture applications are a fact.

While recording lectures has been a standard practice in universities for some time, lecture capture apps enable students to record and replay lectures without having to invest in pricey recording equipment. Sound Note is a well-known lecture capture application that serves as both a notepad and audio recorder, allowing students to save an entire lecture in both visual and audio formats. If there's a whiteboard to capture, students can do so easily. Additionally, Office Lens is another app that permits users to photograph a whiteboard, transform it into a PDF, Word, or PowerPoint file, and save all the data via One Drive—a virtual storage solution or locally on their devices for review and study purposes. Beyond Sound Note, one of the leading lecture capture applications—keeping its name straightforward—is Lecture Capture, but Notes Plus and Audio Memos Free – The Voice Recorder are also high-quality applications.

Revision applications are thriving in this century, and it appears that technology has accomplished what many believed was unattainable: making the study process enjoyable. Study Blue, an application for students, utilizes their course information to generate a variety of card sets for relevant revisions. Students can also create personalized flashcards and challenge themselves. Another beneficial revision application is GoConqr, which provides resources for creating revision charts, mind maps, flashcards, notes, and quizzes, as well as the capability to connect and collaborate with friends, classmates, or other students worldwide. Furthermore, various student applications are now available for exams, utilized by many graduate schools as part of the admissions process.

These tools incorporate social networking-style features, enabling users to connect with other test-takers and explore revision materials, including quizzes, notes, and more.

Organization is crucial for success and well-being at university, leading to the rising popularity of student planner applications. In addition to conserving paper, many student planner applications also deliver reminders and alerts directly to your phone or device. Notable student planner applications include Timetable (on Android devices), an app characterized by a sleek and tidy interface that allows for timetable mapping.

1.3 Advantages and disatvantages of smartphones in learning

The technology found in smartphones is advancing rapidly each day, which is why smartphones are increasingly utilized and gaining popularity. In this regard, Kevin Kimberlin, Chairman of Spencer Trask, states that "no other technology has affected us like mobile phones; it is the quickest manmade phenomenon ever."

• 1.3.1. Advantages of smartphones in learning

As smartphones become an indispensable device for learners, smartphone-based education is a crucial resource in generating fresh ideas in language classes and developing innovative learning methods. Numerous benefits for language learners offered by smartphones can be outlined as follows:

1. Smartphones offer the capability to obtain rapid answers.

2. The audio and video features of smartphones can enliven learning within the classroom

3. The utilization of smartphones aids students in connecting with peers worldwide, thereby broadening their learning environment.

4. The employment of smartphones facilitates social learning; they enable students to collaborate on projects and work towards a shared objective.

5. Smartphones can act as memory aids; students can capture their lessons through photos or videos to improve retention.

6. Engaging with smartphones for learning can also be more interactive and enjoyable.

7. Smartphones can replace traditional paper and pencil; students can employ their devices for taking notes and setting reminders.

8. Smartphones can complement laptops, tablets, and other educational technologies.

9. Students can reduce the time spent on data collection by leveraging their smartphones.

10. Accessing the internet becomes straightforward by connecting to a wireless access point.

11. Students can enhance their skills with the assistance of their smartphones.

- ### 1.3.2 Disadvantages of smartphones in learning

Currently, a majority of individuals depend on smartphones for both work and education because life is hectic, and everyone is trying to meet their needs in a limited amount of time. Nonetheless, it is clear that every technology possesses its own advantages and disadvantages. At present, students have reached a stage where the notion of living without smartphones feels unfeasible since this portable device enables them to send messages and engage on social networking platforms like Facebook, Twitter, and Viber, in addition to checking their emails and playing online games within the classroom, which proves to be extremely distracting for the student as they fail to concentrate and become more captivated by the phone rather than the subject of the lecture. Moreover, this can also disrupt other students nearby when the instructor interrupts the lesson and requests that the student turn off their phone, thus causing a distraction for the entire class.

Furthermore, students can utilize smartphones to cheat during examinations, which may occur through text conversations with fellow students or simply by accessing the Internet to easily find answers.

It is widely recognized that all smartphones have the capability to capture videos and photographs, meaning that students can effortlessly record anything occurring in the classroom at any moment and upload it to any platform that permits video sharing, such as YouTube and Facebook. Consequently, this would constitute an invasion of both the teacher's and students' privacy.

In summary, the vast majority of students own smartphones, which provide incredible functionalities to both students and teachers alike. There are numerous valuable tools at students' disposal to improve the teaching and learning experience; however, at the same time, these same tools could pose significant distractions and adversely affect students. Smartphones are excellent in and of themselves, but the manner in which they are employed in classroom environments should be considered and structured meticulously to ensure positive outcomes at all times.

1.4. The psychological effects of smartphones

The advancement of technology has transformed human life; utilizing computers, tablets, and smartphones have become crucial in daily life. The individuals go about their daily routines, engaging with smartphones is among the most significant and unavoidable activities to the extent that the first action everyone takes in the morning is checking their smartphones. It is widely recognized that smartphones provide numerous conveniences in life, yet every user must be conscious of the adverse effects associated with this smart device. The most alarming issue is smartphone addiction; according to Young in 1999, smartphone

addiction is a phenomenon that relates to the inability to control smartphone use, and individuals with this issue face social, psychological, and health difficulties.

Currently, most people struggle to be without their smartphones, as this compact device enables communication with anyone around the globe, provides internet access and browsing capabilities, and offers entertainment options such as listening to music, watching videos and movies, and gaming. Nonetheless, the challenge lies in determining whether someone is addicted, as the distinction between the necessities to use a smartphone and being addicted is extremely subtle. However, there are certain signs associated with smartphone addiction Users of this device should take note of the well-known phenomenon called "Phantom Smartphone Vibration," which many people have experienced when the human body becomes conditioned to anticipate a certain type of smartphone interaction to the extent that individuals visualize the feeling of vibration.

Because smartphones offer internet connectivity, many of the common issues and compulsive behaviours linked to internet usage can now also be observed in smartphone usage. Weinstein and Lejoyeux describe certain problematic internet usage as the "excessive or poorly controlled preoccupations, urges or behaviours regarding internet use that lead to impairment or distress" (Weinstein and Lejoyeux, 2010 P. 277). This contemporary era of smartphones with internet capabilities has prompted substantial research concerning smartphone addiction, giving rise to a new term in the English language that describes this smartphone dependency: Nomophobia, which is an abbreviation for no mobile phone phobia and refers to the anxiety associated with losing the smartphone or the apprehension of being out of mobile phone reach (Emanuel et al, 2015. P292). Additionally, as reported by Choi et al. 2014, the excessive use of smartphones can result in various psychological effects that encompass the disruption of real-life relationships, sleep patterns, education, and work;

certain issues arise regarding verbal memory and attention; heightened social isolation; alongside diminished wellbeing and increased stress, aggression, and hostility.

Smartphone addiction is characterized as "excessive use of smartphones that interferes with daily lives of the users" (Lee et al, 2014). In other terms, smartphone addiction interrupts established life routines. It can be classified as behavioural addiction (Toa et al. 2010) which states that behavioural addiction emerges when an individual struggles to manage the frequency of engaging in previously harmless activities like shopping, exercise, and work.

The excessive use of smartphones often indicates a range of issues such as stress, anxiety, depression, and loneliness.

Taylor (2012 P113) described stress as "A negative emotional experience accompanied by predictable biochemical, cognitive and behavioural changes that are directed either toward altering the stressful event or accommodating to it effect." In other words, stress refers to the negative emotions felt by an individual.

As noted by Thomee et al. 2011, smartphones have progressively been woven into both professional and social spheres, potentially creating an expectation to be accessible or reachable at any time and place.

Technostress is a recently coined term in the English language that refers to the stress one may experience due to the overuse of technology; moreover, technostress is defined by Weil and Rosen (1997 P05) as "any negative effect on human attitudes, thought, behaviours and psychology that directly or indirectly result from technology. "

Anxiety, as defined by Freud, is an emotional condition characterized by feelings of tension, nervousness, apprehension, and worry, which are accompanied by physiological arousal in the body (Spielberg. 2013). Individuals who rely on this form of communication to maintain

closeness with friends and family may sometimes focus excessively on responding to messages or the the absence of immediate replies.

If a response is not received, this may result in negative feelings of isolation and consequently increased anxiety about being excluded from their close-knit group (Lu, et al, 2011). As stated by Nataro 2015, for many individuals, it proves challenging to find the equilibrium between feeling disconnected from reality when submerged in the online environment and experiencing separation anxiety when the phone is absent from their grasp. Extensive smartphone usage can lead to heightened depression, which is characterized by the Encyclopaedia Britannica 2014 as an emotional condition characterized by feelings of diminished self-worth, guilt, and incapacity to derive pleasure from life. Additionally, psychiatrist Dr. Paul Bester asserts that excessive exposure to smartphone screens is contributing to mental disorders such as depression. As noted by Thomee et al, 2011, inadequate sleep has surfaced as a significant health issue in technologically advanced societies, since sleep is a biological process linked to mood regulation. Smartphone addiction adversely affects the user's social life, creating challenges in interpersonal relationships. The compulsion for social media and texting can escalate to the extent that virtual online friends take precedence over real-life connections, resulting in poor communication, dishonesty in relationships, conflict, and social isolation.

- ### 1.4.1. Smartphones and Learning

In recent years, there has been an increasing focus on the potential of smartphones as educational tools, particularly for learners of foreign languages. Chappelle (2001, p. 1) articulates in her work, "Computer Applications in Second Language Acquisition," that the integration of technology into daily language use has become so pervasive in the 21st century that the incorporation of learning technologies is now an essential aspect of life, with

significant implications for applied linguists. Numerous applications have been developed specifically for students, offering substantial benefits aimed at enhancing course organization and facilitating interaction with educators. Tools such as note-taking applications and cloud services enable students to convert their notes into structured study materials. Furthermore, learners can leverage their devices in various innovative ways to streamline their educational experiences. For instance, during a conference, a student may find it challenging to take notes quickly enough if the speaker presents information at a rapid pace. Instead of writing, a more efficient approach would be to utilize the smartphone's camera to capture images of the blackboard or presentation slides. By doing so, students can ensure they retain all the information displayed, which can be reviewed later. Additionally, video recording serves as an effective method for students to revisit entire sessions at their convenience. However, some educators may prohibit this practice in certain universities. In such cases, audio recording presents a viable alternative, allowing students to listen to comprehensive explanations at home. There are numerous strategies available to ensure that no valuable information shared in the classroom is overlooked

1.5 Conclusion

The literature review highlights the significance of smartphones in English as a Foreign Language (EFL) courses. Smartphones have the potential to introduce innovative elements into the learning process, necessitating their effective integration as educational tools within language classrooms. Consequently, the incorporation of smartphones fosters new pedagogical transformations, which in turn establish novel educational roles. This chapter aims to elucidate the impact of smartphone utilization on the acquisition of second or foreign languages. Furthermore, it emphasizes the influence of smartphones on English language learning, wherein students can leverage various effective applications to enhance their skills. The subsequent chapter will detail the case study, outline the research instruments employed

by the researchers, and present the primary findings derived from each tool, along with their analysis and discussion, ultimately interpreting these results in relation to the previously formulated research questions and hypotheses.

Chapter Two: Research Methodology and Data Collection

2.1 Introduction

In the previous chapter, we introduced the theoretical framework undergirding our research, which investigates the function of smartphones in facilitating English language learning. In this chapter, we delve into the research methodology employed in the current study. Explaining the research approach, setting and sample selected, it also provides information on data collection methods such as a student questionnaire and teacher interview. Furthermore, this chapter specifies the procedures implemented for data analysis, and discuss the reliability, validity, and ethical considerations relevant to our research. Through this methodological framework, the study seeks to explore the impact of smartphones on students' learning practices, engagement, and psychological experiences in the EFL classroom.

2.2. Research Methodology

Chapter one presents the theoretical part of the topic under study, while Chapter two presents thepractical part. This chapter details the research methodology, including the main reasons forusing a case study.This study was a case study conducted at the English Department of Ain TemouchentUniversity.The participants included teachers of English as a foreign language and second year students ofBelhadjBouchaib University. Yin (1994:13) defined a case study as an empirical inquiry that investigates a contemporary phenomenonwithin its real-life context, especially when the boundaries between phenomenonandcontext are not clearly evident and relies on multiple sources of evidence. Thus, the aim of this research understands the importance of smartphone inEFL classrooms, using both qualitative and quantitative approaches which help togather more reliable and valid results.

2.3 Research Approaches

Across different scientific fields, research is the main tool used to expand the boundaries of knowledge; it functions as a systematic approach to examining questions, resolving issues, and developing new insights. Marczyk and Festinger (2005) define research methodology as including the whole research process from planning to conduct the study to drawing conclusions to sharing findings.Creswell (2012) reinforces this by defining research as "a series of steps used to collect and analyze data in order to improve our understanding of a topic or situation" (p. 3).According to Kothari, research approach is:

Research methodology is a way to systematically solve the research problem. It may be defined as the science of examining how research is conducted scientifically. In it we look at the many phases that a researcher often takes when researching an issue as well as the reasoning behind them. (2004,p8)

This study examines the use of smartphones in English language learning among second-year EFL students at the Department of Letters and English Language, University of Ain Temouchent. To achieve this, a research approach was carefully chosen to investigate the educational and psychological implications of smartphone usage in academic settings. Research approaches refer to the methodologies and techniques utilized to examine a research issue, directing how data is gathered, analyzed, and interpreted. The selection of a research approach is contingent upon the nature of the investigation, research goals, and the data type needed. Generally, research approaches can be categorized into three principal types: qualitative, quantitative, and mixed methods. Since this study investigates the role of smartphones in English language learning, it adopts a **mixed-methods approach**, integrating both quantitative and qualitative techniques. This combination offers a comprehensive understanding of students' engagement, academic behaviours, and

psychological experiences related to mobile learning. The selected approach is based on the necessity to capture both quantitative trends and deeper personal insights from students and teachers.

- ## 2.3.1 Qualitative Approach

Flick (2014) defines qualitative research as a method that investigates the subjective significance or social creation of problems, events, or practices by collecting non-standardized data and analyzing images and texts rather than numbers and statistics.In this research, a qualitative method was utilized to examine instructors' perspectives on the use of smartphones in English as a Foreign Language (EFL) classrooms. Semi-structured interviews fostered open communication, allowing participants to provide insights into how smartphones affect learning behaviours, interaction in the classroom, and student motivation. This method was crucial for revealing contextual information that is difficult to quantify.

- ## 2.3.2 Quantitative Approach

Creswell (1994) describes quantitative research as: “An inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory hold true” (p. 2).Quantitative research emphasizes the quantification and analysis of numerical data to reveal patterns, relationships, and statistical trends. It facilitates objective and organized data collection, thereby proving to be invaluable for studying large populations and drawing generalizable conclusions (Bryman, 2012).In this research, a questionnaire was distributed to second-year English as Foreign Language (EFL) students to gather data regarding the frequency and purposes for which they utilize smartphones in their English studies. The responses were examined to identify trends in

usage habits, perceived advantages, and possible distractions. This quantitative analysis underpins the interpretation of more extensive learning patterns.

2.4 Research Sample

Sampling is a crucial statistical technique that entails selecting a specific number of observations from a larger population. This method enables researchers to efficiently examine a representative subset of the overall population, facilitating informed conclusions without the need to study every individual. According to Easton and McColl (2014), a sample is defined as a 3subset of the general population that is relevant to the research topic. Similarly, Polit (2001) described sampling as the process of selecting individuals, events, or other elements that are representative of the population being studied. Fraenkel, Wallen, and Hyun (2012) also define a sample as "the group on which information is obtained" (p. 91). This study employs qualitative and quantitative approaches through teacher interviews and questionnaires. The sample included 40 second-year EFL students from the University of Ain Temouchent BelhadjBouchaib at the Department of English Language and Letters. These students were chosen base on their ongoing academic engaged in learning English as a second language, especially in relation to their use of mobile technology and how it affects their learning.

Four EFL teachers were also interviewed to provide qualitative insights grounded in their teaching experience, in addition to the student participants. These teachers were selected due to their familiarity and knowledgeable about students' use of smartphones in the classroom and their ability to reflect on psychological effects and pedagogical impacts in real-time teaching environments. Since the sample is both representative of the university setting and relevant, combining student and teacher perspectives ensure a more thorough understanding of the effects of smartphone usage in EFL learning.

- **2.4.1 Teacher's profile**

The research sample included a group of instructors from the English Department at the University of AinTemouchent. Four (4) teachers specializing in language studies took part in the study through semi-structured interviews. The reason behind including EFL teachers was to gain insight into their opinions and experiences regarding the integration of smartphones in English language classrooms.

- **2.4.2. Student's profile**

The participant students in this study were second-year English language learners from the University of Ain Temouchent Department of Letters and English Language in BelhadjBouchaib. Forty (40) students were chosen at random to complete the questionnaire. These students have two years of English as a foreign language experience at the university level, their academic background allows them to critically analyze their learning experiences and offer relevant feedback on the use of smartphones in learning English. The majority of the participants are Arabic native speakers aged 18 to 24, who were chosen for their active use of mobile technologies both in and out of classrooms.

2.5 Instrumentation

The current study used two research instruments a questionnaire tailored for EFL students and a semi-structured interview with EFL teachers in order to gather reliable and relevant data. These instruments were chosen to provide a complete insight of both teachers' attitudes and students' behaviours about the use of smartphones in learning English as a second language.

Setting: refers to space and time or the two frams

Special: major steps of the study were in the classroom

- Students' questionnaire ⟶ using internet ⟶ informal space
- Interview ⟶ in the classrooms ⟶ formal space

Temporal

To collect data from the participants, time was calculated related to the instruments used regarding the nature and participants' point of views.

- The student questionnaire was taken 33 days to collect the data from students
- The interview has taken about two days (the average of two interviews a day)

Time duration of all interviews ⟶ 31 m 17s

This procedure has taken two days to allow the researcher to conduct high quality interviews with full focus and energy and on the other hand, the availability of the participants that is also another pertinent factor.

Time duration of interview no 1 ⟶ 8 m 08 s

Time duration of interview no 2 ⟶ 7 m 29 s

Time duration of interview no 3 ⟶ 8 m 24 s

Time duration of interview no 4 ⟶ 7 m 56 s

Time duration is a parameter that justified the responses of each participant was 7 m 34 s.

- **2.5.1 Questionnaire**

Richard (2005:60) defines the questionnaire as the following

"Questionnaire one of the most common instruments used, they arerelatively easy to prepare they can be used with large numbers of subjects and they obtain information that is relatively easy to tabulate and analyse, they can also be used to elicit information about many different kinds of issues such as language use, communication difficulties, preferred learning styles, preferred classroom activities and attitudes and beliefs".

According to Dörnyeib (2009 P9) there are several advantages concerning theuse of the questionnaire among them:

- ✓ Collect huge amount of information in less time
- ✓ Not time consuming
- ✓ Data collection can be fast and relatively straight forward
- ✓ cost - effectiveness
- ✓ it can be successfully used with a variety of people in a variety situation targeting a variety of topics

The purpose of the questionnaire was to gather quantitative information from University of Ain Temouchent second-year EFL students. Just 40 pupils answered the questionnaire, despite the fact that there are more than 200 students in this level overall. For the quantitative part of the study, their answers were regarded as the primary sample. There were fourteen items on the survey, which were divided into two primary sections: Background data, such as gender, level of English proficiency, smartphone ownership, and preferred operating systems, were collected in the first section. Students' actual use of smartphones for studying was the subject of the second part, which covered topics like:

- Frequency and purpose of use
- Types of applications and educational materials accessed
- Classroom behaviour and teacher policies
- Personal attitudes toward learning with smartphones
- Perceived benefits and potential distractions

For clarity, consistency, and convenience of analysis, a mix of multiple-choice and Likert-scale questions was employed.

(Dikilitaş and Bostancıoğlu, 2019). Research methodology experts have underlined seven basic categories to the questionnaire comprising: quantity or information category, list or MCQ, scale, ranking, complex grid or table, and open-ended. (Blaxter et al, 2006, cited in Benguerfi, 2017).

In this study, the student questionnaire has been structured using three types of questions, ensuring a well-rounded approach to data collection.

Multiple choices:

For example: Which operating system do you prefer?

Android ☐

iOS ☐

Others ☐

Yes or no questions:

For example: Do you own a smartphone with internet access?

Yes, with unlimited access ☐

Yes, with limited access ☐

No ☐

Open ended questions:

For example: Which of the following learning materials do you prefer accessing on your smartphone? (Select all that apply)

Interactive quizzes ☐

Online courses ☐

PowerPoint slides ☐

Audio lectures ☐

Educational videos ☐

eBOOKS/PDFsSample ☐

The participants involved in this research consisted of both second-year EFL students and English language teachers. This section outlines the background of the individuals who contributed to the study.

- ## 2.5.2 Interview

The goal of an interview, according to Flick (2006), is to collect data in the form of answers that may subsequently be grasped. The interview is a crucial method of gathering data that involves verbal exchanges between the person being interviewed and the researcher.Kval (1996:14) defines the interview as:

"An interchange between two or more people on a topic of mutual interest, sees the centrality of human interaction for knowledge production, and emphasizes the social situationless of research data"... In survey design, interviews are frequently used for both exploratory and descriptive research. Four EFL teachers from the same department participated in semi-structured interviews to enhance the student responds and offer further context. These educators were chosen on the basis of their direct contact with second-year students and their background using technology in language learning.The interview consisted of seven open-ended questions that explored:

- The role of technology and smartphones in the language classroom
- Teachers' perceptions of smartphone reliability as a learning tool
- The advantages and disadvantages of allowing smartphones in class
- Observations regarding student motivation and engagement

- Classroom distractions and policies, particularly during exams

Teachers were able to openly express their opinions, discuss their own classroom experiences, and provide professional insights and how cellphones affect teaching and learning in depth using this qualitative instrument.

2.6 Data Analysis Procedures

Data analysis is an essential part of any scholarly research since it enables the researcher to make sense of raw data and draw valuable insights. Two primary instruments were used to gather data in this study: a questionnaire for students and a semi-structured interview for teachers. These tools were chosen to assess students' behaviours and attitudes regarding the use of smartphones in language learning and to gain insight into teachers' professional views on the subject. The student questionnaire was distributed online through a special group on Facebook for second-year students in the English Department. It had multiple-choice questions, Likert-scale options, and "yes" or "no" answers, among other question forms. Students' opinions on the educational usage of smartphones, their daily smartphone learning habits, and their preferences in classroom settings were all intended to be gathered via the questionnaire. Only 40 students answered and provided comprehensive responses, despite the fact that over 200 students were the target audience.Four department teachers were chosen for the interview based on their familiarity with classroom technology and their direct contact with second-year students. There were seven open-ended questions in the interview. It concentrated on classroom management concerns, student motivation, teacher opinions of the educational usefulness of smartphones, and the advantages or disadvantages of using mobile devices in the classroom and for examinations.

2.7 Limitations of the study

While this study had been carefully organized to examine how second-year EFL students at the University of Ain Temouchent use smartphones to learn English, a number of challenges surfaced during the data gathering and analysis processes.To begin with, the study aimed to gather data from a sample of 200 students; however, only 40 valid responses were ultimately obtained. Due to the low response rate, this data was less representative and may have influenced its reliability. The factors contributing to the lack of participation could be linked to students' disinterest, academic pressures, or limited time availability during the data collection phase. Second, a significant obstacle was the three-month duration of the answer collection process. Students' irregular attendance and their unwillingness or lack of time to complete the questionnaire caused delays for the researcher despite every effort and numerous follow-ups. Additionally, this delay affected the research pace and increased pressure throughout the analysis phase.Furthermore, the study was restricted to a single department at a single university, which diminishes the generalizability of the results and limits the data application to a wider range of educational settings. It is not possible to infer that the results are representative of students in other academic fields or from other Algerian universities.An additional limitation pertains to the dependence on self-reported data via questionnaires and interviews. Even though participants were urged to provide honest answers, the chance of biased or socially preferable responses cannot be completely dismissed.Finally Classroom observation was not utilized due to time and administrative constraints, despite the potential benefits of having an objective view and serving as a triangulation method.Considering these difficulties, the study provides insightful information about how students use their smartphones for language learning, and it provides the foundation for deeper future research in this field.

2.8 Conclusion

This chapter describes the research methodology used in this study; starting with an overview of the mixed-methods approach.Then we explained the sample procedure, which included teachers from the University of Ain Temouchent at the Department of Letters and English Language as well as second-year EFL students. The chapter also described the research tools, which consisted of a semi-structured interview conducted with teachers and a questionnaire given to students.Lastly, we discussed the methods used for data analysis, both quantitative and qualitative. The next chapter will cover the results and analysis of this data collection.

Chapter Three: Data Analysis, Results Interpretation and Recommendation

3.1 Introduction

This concluding chapter is organized into three primary parts: data analysis, interpretation of the results, and concluding recommendations. The analysis will be displayed using graphs, tables, and descriptive summaries after gathering the necessary information from teachers and students through interviews and questionnaires. The chapter will begin with an analysis of students' answers to the questionnaire, and then it will turn to the analysis of teachers' interview responses. The findings will then be analyzed concerning the hypotheses and research questions. Ultimately, the chapter will offer guidance and perspectives founded on the data to support the improved and efficient use of smartphones in EFL learning.

3.2 Data Analysis and Interpretation

Collecting data is a crucial step in any research process and is often considered one of the more challenging phases. Although there are many tools available for gathering data, this study relied on two main instruments: a questionnaire which includes both open-ended and closed-ended questions, was given to a total of 200 second-year EFL students from the Department of Letters and English Language at the University of Ain Temouchent, BelhadjBouchaib Out of these, 40 students successfully completed the questionnaire, providing valuable insights into their experiences and opinions regarding the use of smartphones in their English language learning process.and a semi-structured interview with Four EFL teachers from the same department participated in addition to the questionnaire to gather qualitative information about their opinions regarding the use of smartphones in English instruction. Teachers' opinions regarding smartphone use in the classroom, the opportunities and problems it poses, and the strategies they have used to maximize its advantages for language learning was the primary subjects of these interviews.

The combination of quantitative and qualitative data and using multiple methods helped in collecting diverse information from different viewpoints, which allowed for a more complete understanding of the research problem.

- ## 3.2.1 The Examination of the Students' Questionnaire

Section 01: General information

1. Gender Male ☐ female ☐

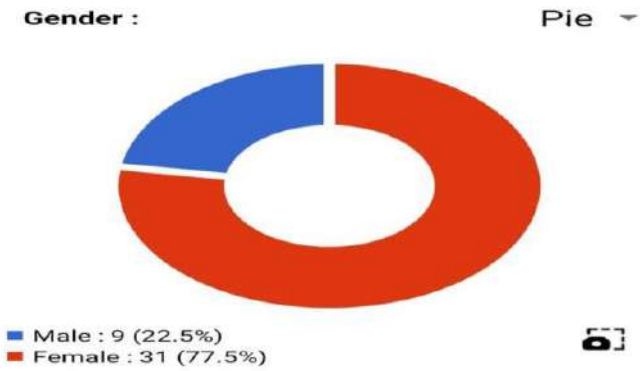

Figure 3.1 Students gender

This question aims to identify the gender distribution among the participants involved in the study. As illustrated in the corresponding pie chart, female students represent a significantly larger portion of the sample, accounting for 77.5%, while male students make up only 22.5%. Although this information does not directly impact the core findings of the research, it does highlight the predominance of female learners in the classroom setting.

2. Students level of English proficiency.

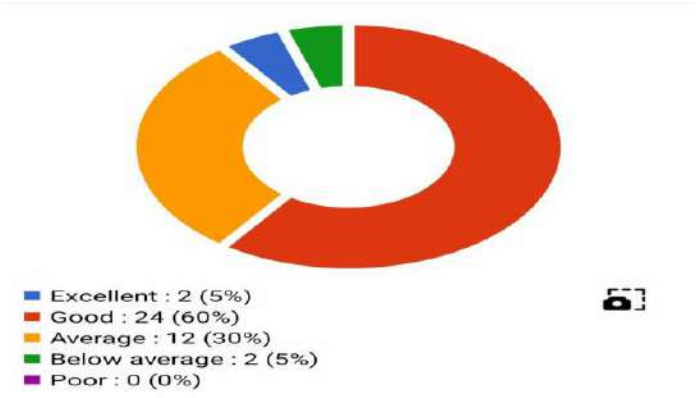

Figure 3.2 Students rate of English proficiency

The purpose of this question was to understand how students perceive their own level in English. According to the results, the majority of students (60%) believe they have a good level. Around 30% consider their level to be average, while a small percentage (5%) rated themselves as excellent. An equal percentage (5%) viewed their level as below average. Interestingly, none of the students identified their level as poor. These findings suggest that most students have a positive perception of their English proficiency, with only a few expressing low confidence in their abilities.

Section 02: Smartphone usage:

3. Do you own a smartphone with internet access?

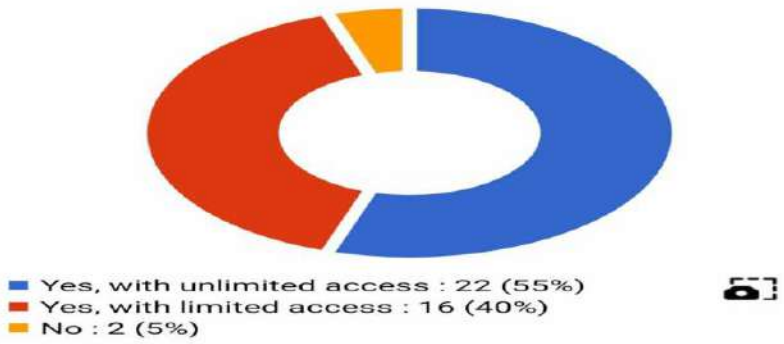

Figure 3.3 Students rate of smartphone with iternet acess.

This question aimed to determine whether students own smartphones with internet access. According to the results, 55% of the students reported having smartphones with unlimited internet access, while 40% stated they had limited access. Only 5% of the participants indicated that they do not have internet access on their smartphones. These findings reveal that almost all students have access to the internet through their smartphones, which suggests that mobile internet is widely available among the student population.

4. Which operating system do you prefer?

Table 3.1: Students preferred devices

Objectives	Subjects	Percentage(%)
Android	31	77.5%
iOS	09	22.5%
Others	00	00%
Total	40	100%

This question aimed to identify students' preferred smartphone operating systems. The results indicate that a significant majority, 31 students (77.5%), favor the Android operating system. In contrast, 9 students (22.5%) reported a preference for Apple's iOS. Notably, no participants indicated the use of any other types of operating systems

5. Which types of apps do you frequentlyuse? (Select all that apply)

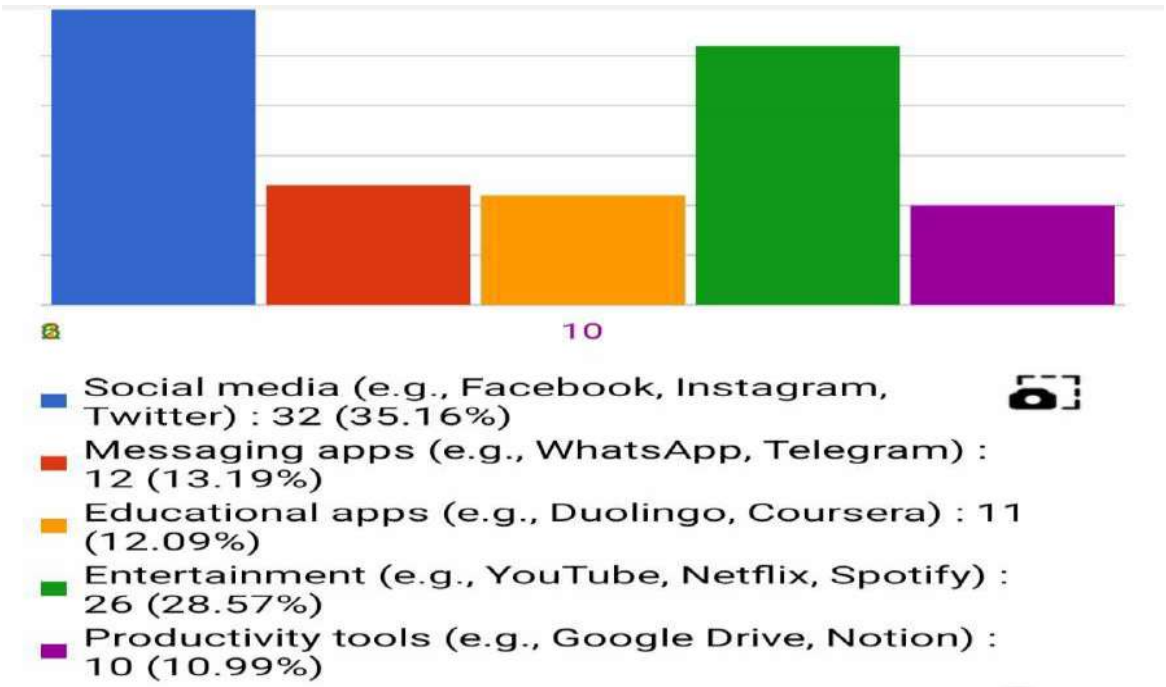

Figure 3.4 App frequently used by students.

This question aimed to examine the primary purposes for which students use their smartphones. The responses highlight a strong preference for social and entertainment activities. Social media platforms such as Facebook, Instagram, and Twitter were the most commonly used, with 32 students (35.16%) selecting them. Entertainment apps like YouTube and Netflix followed closely, cited by 26 students (28.57%). These results suggest that smartphones are mainly used for maintaining social connections. Messaging services (13.19%) and educational apps (12.09%) were less frequently mentioned, while productivity tools like Google Drive and Notion were used by only 10 students (10.99%). The data shows that students primarily engage with smartphones for non-academic purposes.

SECTION 03: Smartphone and learning.

1. **Do you use your smartphone for learning purposes?**

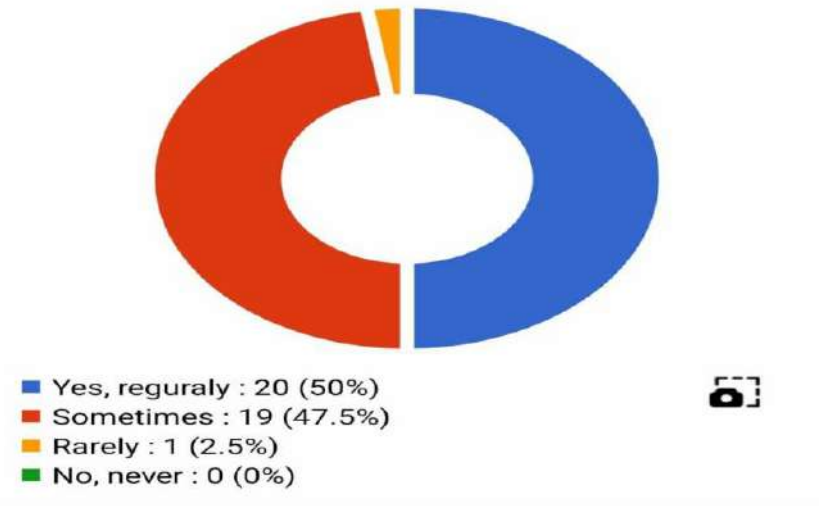

Figure 3.5 Students rate of using smartphones for learning purposes

The aim of this question was to examine how frequently students use their smartphones for educational purposes. As shown in the chart, 50% of the respondents reported using their smartphones regularly for learning. Meanwhile, 47.5% indicated that they use them occasionally, and only 2.5% stated that they rarely do so. Interestingly, none of the participants claimed to never use their smartphones for learning. These results suggest that the majority of students integrate smartphones into their educational practices to some extent, with regular and occasional use being the most common patterns.

7. How often do you use smartphones to study or review lessons?

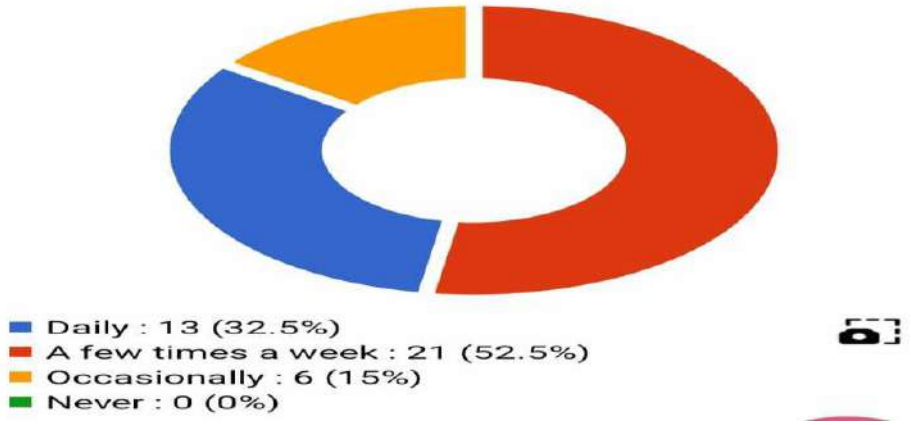

Figure 3.6 Frequency and patterns of Smartphones use in academic contexts

This question aimed to determine how frequently students use their smartphones for studying or reviewing lessons. The results show that over half of the respondents (52.5%) use their devices several times a week; while 32.5% do so daily, indicating smartphones are a key tool in students' study routines. Additionally, 15% reported occasional use, and none stated they never use their smartphones for academic purposes, emphasizing the widespread integration of digital devices in modern learning.

8. Which of the following learning materials do you prefer accessing on your smartphone?

(Select all that apply)

Interactive quizzes

Online courses

PowerPoint slides

Audio lectures

Educational videos

eBOOKS/PDFsSample

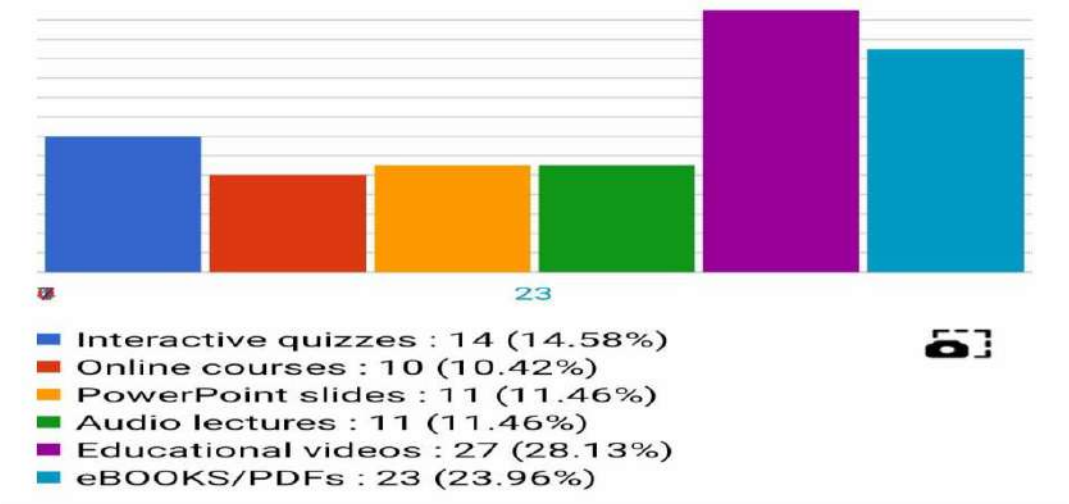

Figure 3.7 Student's engagement with smartphone devices for educational activities.

This question was intended to assess the degree to which students utilize different types of electronic learning resources on their smartphones. The data indicates that educational videos are the most frequently accessed, with 27 students (28.13%) reporting regular use. This suggests a strong preference for visual and auditory materials that support independent learning. Following closely, 23 respondents (23.96%) announced that they use eBooks or PDFs, reflecting a continued reliance on text-based resources. Interactive quizzes, chosen by 14 students (14.58%), show a notable engagement with active learning formats. PowerPoint slides and audio lectures were each used by 11 students (11.46%), suggesting a balanced interest in both visual summaries and audio-based content. Online courses were the least accessed resource, selected by 10 students (10.42%), potentially due to challenges such as time demands or limited availability.

9. Does your teacher allow smartphone use for learning during lectures?

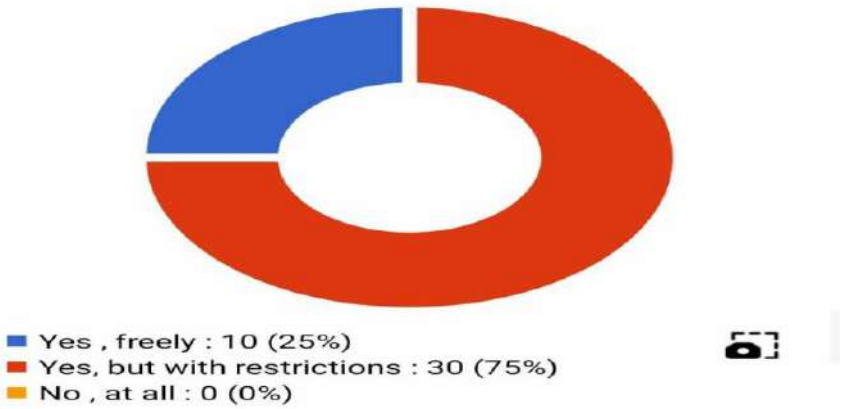

Figure 3.8 Smartphone usage permissions: A classroom perspective.

This question aimed to determine the level of permission students have to use smartphones for learning during lectures. The data shows that all participants (100%) are allowed to use their smartphones in class. Among them, 30 students (75%) reported using smartphones with certain restrictions, while 10 students (25%) indicated they can use them freely. No students reported a complete ban on smartphone use during lessons.

Section 04: Smartphones in the classroom.

10. Have you ever used a smartphone in the classroom for academic purposes?

Table 3.2: Students use of smartphone for academic purposes.

Options	Subjects	Percentage(%)
Yes, frequently	23	57.5%
Yes, occasionally	14	35%
No, never	03	7.5%
Total	40	100%

The purpose of this question is to find out how many students have actually used their smartphones for academic purposes during class. The results show that a large number of students, 23 (57.5%), use their smartphones frequently in class. Another 14 students (35%) said they use their phones occasionally for academic purposes. Only 3 students (7.5%) reported that they have never used their smartphones in the classroom. This indicates that smartphone use in academic settings is common among students, with most using them either regularly or from time to time.

11. How do you feel about learning with smartphone in the classroom?

Figure 3.9 Student s attitude toward learning with smartphones in the classroom .

The pie chart shows that a significant majority of students (82.5%) enjoy and find learning with smartphones helpful. Meanwhile, 17.5% of students prefer traditional learning methods, and notably, 0% reported disliking smartphone use for learning. This distribution clearly indicates that smartphones are generally well-accepted and positively perceived as effective learning tools among students.

12. Which type of classes do you prefer?

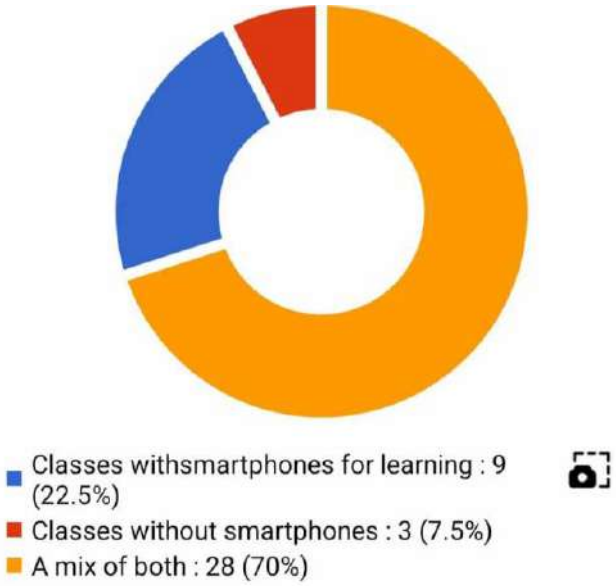

Figure 3.10 The use of smartphone in classes .

The purpose of this inquiry is to find out if students enjoy using cellphones in class or not. The aforementioned results suggest that while only three students (7.5%) prefer lessons without cellphones, the majority of participants—37 students, or 92.5%—are amenable to using smartphones in the classroom (either for educational purposes or in a mixed approach). Particularly, 28 students (70%) prefer a combination of both smartphone and classroom learning, while 9 students (22.5%) choose smartphone-based learning. Though a very tiny percentage still thinks that avoiding smartphones in class is more productive,

13. Do you think smartphones cause distraction during lectures?

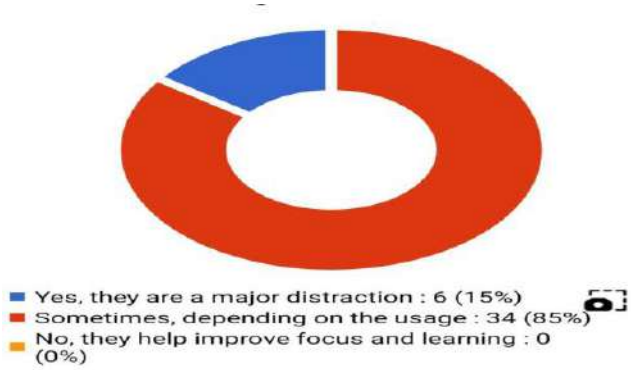

Figure 3.11 Impact of smartphones on students attention in classroom .

This inquiry aims to elucidate whether or not smartphones are a distraction during lectures. The findings indicate that the majority of participants—34, or 85%—think that, depending on how they are used, smartphones only occasionally create distraction. Six individuals, or 15%, believe that smartphones are a significant cause of distraction during lectures. Remarkably, not a single participant (0%), believes that smartphones enhance concentration and learning.

14. Do you believe that technology enhances learning in EFL classrooms?

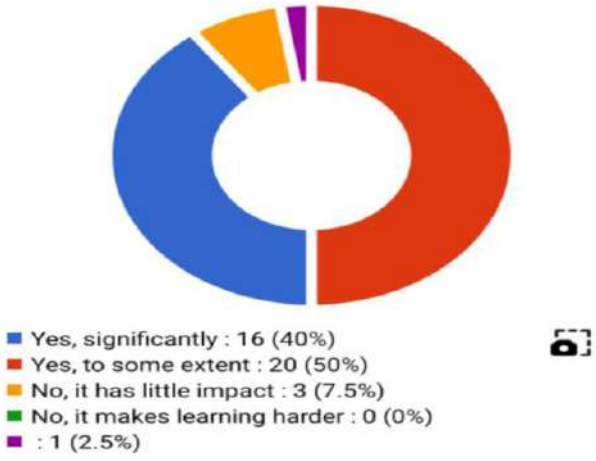

Figure 3.12 Perceptions of technology s impact on learning in EFL classrooms.

The aim of the question is investigating if technology is seen as a useful tool for improving learning in EFL (English as a Foreign Language) classrooms. The findings show

that while 16 participants (40%) say that technology greatly improves learning outcomes, the majority of participants (20, or 50%) think that technology improves learning to some degree. On the other hand, none of the participants (0%) said that technology makes learning more difficult, and only three people (7.5%) believe that technology has little effect on learning. Furthermore, one respondent (2.5%) provided an alternative or undefined response. According to these results, technology is generally seen favourably in EFL classes.

3.2.2 Examination of teachers' interview

In this study, four English instructors from Belhadj Bouchaib University in Ain-Temouchent participated in semi-structured, face-to-face interviews. These teachers were selected based on their experience integrating smartphone technology into their classrooms and their active roles in English as a Foreign Language (EFL) instruction. Meeting in person allowed for clearer communication, deeper insight, and immediate clarification of responses. The interviews aimed to explore the instructors' perspectives on smartphone use in language learning, highlighting both its pedagogical potential and its limitations.The questions addressed a range of topics, including the educational benefits of smartphones,challenges in classroom management, and the psychological effects on student motivation and discipline. Thematic analysis of the responses revealed several key insights, detailed below.

Item 1:

What is the main aim of using technology in EFL classrooms?

All four instructors agreed that technology especially smartphones plays a significant role in enhancing the teaching and learning process. They highlighted that smartphones can support a variety of learning styles (visual, auditory, kinesthetic) and increase student engagement.

One teacher noted, "Students are already attached to their phones; using them for learning feels natural to them." Another mentioned that smartphones make classes more dynamic and accessible, allowing learners to interact with material in multiple ways. Most agreed that integrating familiar tools can help learners feel more confident and motivated.

Item 2:

Can students use smartphones as reliable learning tools? Why or why not?

The majority of teachers acknowledged that smartphones can serve as effective learning tools especially for looking up vocabulary, using language-learning apps, or reviewing recorded lectures. However, they also expressed concerns about distractions. One teacher stated, "They might open a dictionary one moment and switch to Instagram the next." Another emphasized that student maturity and clear classroom rules are key to productive use. While some manage usage with active monitoring, one teacher reported banning smartphones entirely in class due to repeated misuse.

Item 3:

Do you think smartphones can be beneficial for EFL learning? Why?

All four instructors believed that smartphones offer strong educational value when used purposefully. They cited benefits like improved vocabulary, better access to resources, and enhanced opportunities for collaboration and presentations. "With the right apps, students can practice pronunciation, grammar, or even engage in real-time conversations," one teacher explained. However, they also stressed that the outcome depends on how students use their devices self-discipline and goal-directed behaviour are crucial. The consensus was

that smartphones can be very helpful, but only when learners are focused and teachers provide structure.

Item 4:

Do students seem motivated when using smartphones in learning?

Most teachers observed a clear boost in student motivation when smartphones are involved. Students tend to be more curious and active during lessons that incorporate technology. "They're already comfortable with the devices it makes participation feel less intimidating," one teacher noted. However, another added a cautionary perspective: "Just because they're engaged doesn't mean they're always learning. Sometimes the phone becomes a distraction disguised as interest." Motivation, they agreed, must be channeled toward clear learning goals.

Item 5:

Have you experienced any classroom distractions caused by smartphones?

All teachers confirmed that smartphone-related distractions are common. Examples included students listening to music, checking social media, or even watching videos during lessons. One teacher recalled having to ask a student to leave class due to repeated disruptions. These incidents not only affect individual learners but can also derail the overall classroom dynamic. For some instructors, the risk of distraction is serious enough to warrant limiting or banning smartphone use entirely during instructional time.

Item 6:

Why do teachers ask students to turn off smartphones before exams?

There was unanimous agreement that phones must be turned off or removed during exams to prevent cheating. Teachers expressed growing concern over students using AI-powered apps or online tools to generate answers during tests. One teacher shared, "Some students bring two or even three phones—we have to be vigilant." They also noted that reliance on smartphones could undermine students' critical thinking and creativity. Ensuring academic integrity was cited as a major reason for enforcing strict rules during assessments.

The interviews revealed a balanced and realistic view of smartphone use in the EFL classroom. Teachers acknowledged the educational benefits of smartphones, such as access to rich resources and increased learner engagement. However, they also highlighted significant challenges, especially distractions and ethical concerns during exams. Several educators stressed the importance of well-defined rules, close monitoring, and clear learning objectives to make smartphone use effective. Ultimately, teachers agreed that when integrated purposefully, and with student responsibility in mind, smartphones can be valuable tools for language learning.

3.3 discussion of th results

The results of this study show that smartphones play an important role in English language learning among second-year EFL students at Belhadj Bouchaib University. The data collected from both the questionnaire and interviews provided useful insights from both students and teachers.

From the student responses, it is clear that most of them own smartphones with internet access, which makes it easier for them to use these devices for learning. Many students said they use their smartphones regularly or occasionally for studying, especially to watch educational videos, read PDFs or eBooks, and do interactive quizzes. This shows that students prefer using digital tools that are easy to access and support independent learning.

However, the findings also show that students mostly use smartphones for social media and entertainment. Educational apps and productivity tools were used less often. This suggests that even though smartphones can help with learning, they are often used for non-academic purposes, which can reduce their educational benefit.

When it comes to using smartphones in class, most students said they are allowed to use them—either freely or with some rules. A large number of students reported using their phones in the classroom for academic purposes, and many preferred a mix of traditional teaching and smartphone use. Still, many students admitted that smartphones can be a distraction during lessons, especially if they are not used properly.

The interviews with teachers helped to understand the situation better. All four teachers agreed that smartphones can be useful for learning English, especially for vocabulary, listening practice, and increasing student motivation. They also said that students are usually more active and interested when smartphones are part of the lesson. However, they pointed out that smartphones often cause distractions, and some students use them for non-educational reasons during class. Teachers said that clear rules and supervision are necessary to avoid these problems.

Both students and teachers believe that smartphones can improve language learning if used correctly. But if there are no clear rules or if students lack self-discipline, smartphones can cause more harm than good. The results show that it is not the device itself that matters, but how it is used in the learning environment.

In summary, smartphones are already a part of students' daily academic life and have strong potential to support English learning. To make the most of them, teachers and students must work together to set clear goals and use smartphones responsibly.

3.4 Recommendations and suggestions

To address both the pedagogical opportunities and challenges associated with smartphone use in English as Foreign Language (EFL) classrooms, a set of structured strategies is recommended.First, it is essential to establish clear usage policies that define specific parameters for when and how smartphones may be used during instructional activities. Such policies help minimize distractions and set expectations for appropriate classroom behaviour.Active teacher monitoring and control are also crucial. Educators may employ measures such as designated usage areas or educational filtering applications to ensure that smartphones are used exclusively for academic purposes. This level of oversight helps maintain classroom focus and prevents misuse.Promoting student responsibility is equally important. Learners should be informed about both the potential benefits and drawbacks of smartphone use, fostering self-regulation and ethical digital behaviour.

Encouraging students to engage in reflective decision-making regarding technology supports the development of digital literacy and learner autonomy.Smartphones should be purposefully integrated into pedagogical practices. Activities such as mobile-based vocabulary exercises, interactive language games, and research tasks can enhance engagement and reinforce language skills when aligned with instructional objectives.To maintain academic integrity, particularly during assessments, proactive measures must be implemented. These may include stringent examination protocols that require devices to be switched off and placed in visible locations to prevent unauthorized use of artificial intelligence tools or internet access.In cases where students are particularly vulnerable to digital distractions, alternative learning resources should be provided. Options such as printed materials or supervised sessions in computer laboratories can offer equitable access to content without reliance on mobile devices.Finally, continuous professional development is necessary to equip educators with the skills to effectively manage and integrate mobile technologies. Training should emphasize both technological competence and classroom management techniques to maximize instructional benefits while mitigating potential disruptions.By adopting these strategies, EFL educators can leverage the instructional potential of smartphones while upholding academic standards and supporting meaningful language acquisition.

3.4 Conclusion

In this third chapter, we presented a comprehensive analysis of the data gathered through two main research tools: a structured questionnaire gave to second-year students and semi-structured interviews conducted with a chosen set of teachers. These resources were specifically selected to investigate the use of smartphones in English language instruction in the setting of Algerian universities. The study intended to examine students' attitudes, beliefs, and usage behaviours regarding smartphone-assisted language learning using both a

qualitative and quantitative method. The results showed that students frequently utilize smartphones for educational activities such vocabulary development, pronunciation practice, translation, and access to online English content. The majority of students had favorable opinions about using smartphones, emphasizing its accessibility, simplicity of use, and motivational advantages.The data did, however, also highlight a number of issues, such as the possibility of distraction, an excessive reliance on translation apps, and the absence of organized teacher guidance. The chapter ended with a critical analysis of these findings, highlighting how smartphones might be useful resources for improving language learning if used carefully. Practical suggestions were made in the last part to maximize smartphone use in EFL contexts, providing direction for future study in Algerian higher education as well as recommendations for teachers as well as learners.

General conclusion

General conclusion

This paper examined the role of smartphones in enhancing English language learning among second-year students at the University of Ain Temouchent, BelhadjBouchaib. The primary objective was to assess how smartphone use affects learners' motivation, engagement, and academic performance within the Algerian EFL context. In addition, the study explored students' attitudes toward using smartphones as educational tools and investigated teachers' perspectives on both the opportunities and challenges of integrating this technology into language instruction. Chapter One established the theoretical foundation for understanding the use of smartphones in education. It provided an overview of Mobile-Assisted Language Learning (MALL), highlighted the psychological and pedagogical dimensions of smartphone integration, and discussed potential benefits such as increased learner autonomy, access to authentic materials, and improved engagement. The chapter also addressed challenges, including distractions, lack of structured implementation, and disparities in digital literacy among students.Chapter Two detailed the research methodology, which employed a mixed-methods approach combining quantitative data from student surveys with qualitative insights gathered through semi-structured interviews with EFL instructors. This methodological blend enabled a more nuanced and reliable analysis, offering a balanced perspective from both students and educators. The study involved 40 second-year students and 4 instructors, whose experiences enriched the research findings.Chapter Three presented and analyzed the data, revealing that students generally held positive attitudes toward using smartphones in their English learning. They reported benefits such as improved vocabulary, increased motivation, and more flexible access to learning resources. Teachers also acknowledged the educational value of smartphones, noting their potential to enhance student engagement and facilitate more interactive lessons. However, concerns were raised regarding classroom management, potential misuse, and the

need for clear instructional strategies to fully harness the educational benefits of smartphones.In conclusion, the study supported the initial hypotheses: smartphone use has a positive impact on students' motivation and language learning performance, and both students and teachers recognize its value in EFL education. Despite limitations such as a relatively small sample size and limited geographic scope, the findings provide meaningful insights into technology-enhanced learning in Algerian higher education. The study recommends more structured integration of smartphones into the curriculum, digital literacy training for both students and teachers, and the development of pedagogical strategies that maximize learning benefits while minimizing distractions. Future research could explore long-term impacts, compare results across regions or educational levels, and examine the role of teacher training in optimizing mobile learning experiences.

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Appendices

- **Appendix A: Surdents' Questionnaire**

Dearstudents,

You are invited to take part in this research study which aims to explore the use of smartphones as a learning tool in EFL (English as a Foreign Language) classrooms. Your responses are highly valuable and will contribute significantly to the findings of this study. Please answer all questions honestly and carefully. All responses will be treated with strict confidentiality and used solely for academic purposes.

We appreciate your participation.

Section 1: General Information

- 1. Gender:

☐ Male

☐ Female

- 2. How would you rate your English proficiency:

☐ Excellent

☐ Good

☐ Average

☐ Below average

☐ Poor

Section 2: Smartphone Usage

- 1. Do you own a smartphone with internet access:

☐ Yes, with unlimited access

☐ Yes, with limited access

☐ No

- 2. Which operating system do you prefer:

☐ Android

☐ iOS

☐ Other (please specify)…….

- 3. Which types of apps do you frequently use? (Select all that apply):

☐ Social media (e.g., Facebook, Instagram, Twitter)

☐ Messaging apps (e.g., WhatsApp, Telegram

☐ Educational apps (e.g., Duolingo, Coursera)

☐ Entertainment (e.g., YouTube, Netflix, Spotify)

☐ Productivity tools (e.g., Google Drive, Notion)

Section 3: Smartphones and Learning

- 1. Do you use your smartphone for learning purposes:

☐ Yes, regularly

☐ Sometimes

☐ Rarely

☐ No, never

- 2. How often do you use your smartphone to study or review lessons:

☐ Daily

☐ A few times a week

☐ Occasionally

☐ Never

- 3. Which of the following learning materials do you prefer accessing on your smartphone? (Select all that apply):

☐ Interactive quizzes

☐ Online courses

☐ PowerPoint slides

☐ Audio lectures

☐ Educational videos

☐ eBooks/PDFs

- 4. Does your teacher allow smartphone use for learning during lectures:

☐ Yes, freely

☐ Yes, but with restrictions

☐ No, not at all

Section 4: Smartphones in the Classroom

- 1. Have you ever used a smartphone in the classroom for academic purposes:

☐ Yes, frequently

☐ Yes, occasionally

☐ No, never

- 2. How do you feel about learning with a smartphone in the classroom:

☐ I enjoy it and find it helpful

☐ I prefer traditional learning methods

☐ I dislike using smartphones for learning

- 3. Which type of classes do you prefer:

☐ Classes with smartphones for learning

☐ Classes without smartphones

☐ A mix of both

- 4. Do you think smartphones cause distractions during lectures:

☐ Yes, they are a major distraction

☐ Sometimes, depending on usage

☐ No, they help improve focus and learning

- 5. Do you believe technology enhances learning in EFL classrooms:

☐ Yes, significantly

☐ Yes, to some extent

☐ No, it has little impact

☐ No, it makes learning harder

Thank you for your time and valuable contribution to this research.

- **Appendix B: teachers' interview**

Item one: According to you what is the main aim of using technology in EFL classroom?

Item two: Would you allow and encourage students to use smartphones in classroom for learning purposes? State why?

Item three: do you think that the use of smartphone could be beneficial for EFL learners? State why?

Item four: do students seem motivated during the use of smartphone in learning?

Item five: Have you ever faced any distraction inside the classroom when a student used his or her smartphone? If yes Mentions some

Item six: We noticed that teachers ask students to turn off their smartphone before every exam, why?

Summary

This study examines the role of smartphones in supporting English language learning among second-year EFL students at BelhadjBouchaib University. Through questionnaires and teacher interviews, the research found that smartphones contribute positively to student motivation, vocabulary development, and flexible learning. While challenges such as distraction and misuse were noted, both students and instructors generally viewed smartphone use as beneficial. The study highlights the need for clear usage policies and teacher guidance to ensure effective integration in the classroom.

Key words: smartphone, English language, positive attitude.

Résumé

Cette étude examine le rôle des smartphones dans le soutien à l'apprentissage de l'anglais chez les étudiants en deuxième année d'EFL à l'université Belhadj Bouchaib. À l'aide de questionnaires et d'entretiens avec les enseignants, l'étude a montré que les smartphones contribuent positivement à la motivation des étudiants, au développement du vocabulaire et à la flexibilité de l'apprentissage. Bien que des problèmes tels que la distraction et l'utilisation abusive aient été relevés, les étudiants et les enseignants considèrent généralement que l'utilisation du smartphone est bénéfique. L'étude souligne la nécessité de politiques d'utilisation claires et de conseils aux enseignants pour garantir une intégration efficace dans la classe.

Mots clés : smartphone, langue anglaise, attitude positive.

ملخص

تسلّط هذه الدراسة الضوء على دور الهواتف الذكية في دعم تعلم اللغة الإنجليزية لدى طلبة السنة الثانية تخصص اللغة الإنجليزية كلغة أجنبية (EFL) بجامعة بلحاج بوشعيب. اعتمدت الدراسة على استبيانات موجهة للطلبة ومقابلات مع الأساتذة، وأظهرت النتائج أن للهواتف الذكية أثراً إيجابياً في تعزيز دافعية الطلبة، وتوسيع حصيلتهم اللغوية، وتوفير فرص تعلم مرنة تتجاوز حدود الفصل الدراسي التقليدي. ورغم التحديات المرتبطة بالتشتت وسوء الاستخدام، فإن الغالبية من الطلبة والأساتذة عبّروا عن مواقف إيجابية تجاه استخدام هذه التقنية. وتشير الدراسة إلى أهمية وضع سياسات واضحة لتنظيم استخدام الهواتف الذكية داخل المؤسسات التعليمية، مع ضرورة توفير التوجيه والإشراف من طرف الأساتذة لضمان توظيف فعّال ومفيد في البيئة التعليمية.