

The use of Mobile Technology in the EFL Classroom: promoting lexical acquisition and oral interaction skills

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**Relatório de Estágio de Mestrado em Ensino de Inglês
no 3º ciclo do Ensino Básico e no Ensino Secundário**

Novembro, 2022

Relatório de Estágio apresentado para cumprimento dos requisitos necessários
à obtenção do grau de Mestre em Ensino de Inglês no 3º Ciclo do Ensino
Básico e no Ensino Secundário, realizado sob a orientação científica do Prof.
Doutor Marco Neves e da Prof.^a Doutora Lili Cavalheiro.

AGRADECIMENTOS

Ao Prof. Doutor Marco Neves, por toda a orientação, compreensão e constante disponibilidade. Obrigada pela sua gentileza e paciência!

À Prof.^a Doutora Ana Matos e à Prof.^a Doutora Lili Cavaleiro, por todo o acompanhamento ao longo do mestrado. Obrigada!

À Prof.^a Luz Baião, pelo seu profissionalismo e toda a orientação ao longo da PES. Mais uma vez, obrigada por me permitir aprender consigo!

Aos meus alunos da turma do 10º B1, a quem me foi permitido ensinar e aprender, levar-vos-ei para sempre na memória.

À minha Mãe e ao meu Pai, por todo o apoio e por fazerem sempre todos os possíveis e impossíveis para eu alcançar todos os meus objetivos. Obrigada! Devo-vos tudo.

Ao meu irmão Marco, que apesar de longe fisicamente nunca deixou que o seu apoio não fosse sentido. Obrigada por sempre acreditares em mim!

Ao meu namorado Gil, por toda a amizade, apoio e paciência ao longo desta jornada. Obrigada por acreditares em mim mesmo quando por vezes eu deixei de o fazer.

Ainda à minha Tia Salomé, que dedicou a sua vida a ser uma Professora excecional, obrigada pelo teu exemplo!

THE USE OF MOBILE TECHNOLOGY IN THE EFL CLASSROOM: PROMOTING LEXICAL ACQUISITION AND ORAL INTERACTION SKILLS

ANA RITA PEDRO RODRIGUES

ABSTRACT

KEYWORDS: Education, Technology, Smartphones, Mobile Assisted Language Learning (MALL), English as a Foreign Language (EFL), Mobile Technology, Generation Z, Oral skills, Communication.

Nowadays, it is impossible to think about education without it being allied to technology. We live in a world where we should undoubtedly use technology as an educational tool, not only as a recurring practice within the classroom, but also because it allows us to learn and connect with students outside the classroom. Considering the Covid-19 global pandemic, where traditional teaching practices had to be reinvented through the use of diverse technological devices, and in which digital platforms became accepted and normalized as a form of teaching, we have moved into a reality where mobile devices are unquestionably part of the daily life of the present generation of students in our schools. Generation Z, in which we can find the so called “Digital Natives”, a term coined by Marc Prensky (2001), refers to the generation that was the first to be born in a world where the Internet has always existed, resulting in a generation with greater comfort when it comes to the use of technology. It is in this context that it is necessary to understand the importance of the presence of mobile technology in the EFL classroom, therefore, teachers may take advantage of this reality and, in addition to other approaches, incorporate technology within the classroom, something which is familiar to the students, and that may contribute to increasing their motivation, thus resulting in lexical acquisition and communication skills.

Action-research was the methodology used throughout the supervised teaching practice, where the teacher observes, researches and explores a certain topic, and then reflects upon it with the aim of growing professionally and improving their teaching practices.

A UTILIZAÇÃO DAS TECNOLOGIAS MÓVEIS NA AULA DE INGLÊS PARA A PROMOÇÃO DA AQUISIÇÃO LEXICAL E DA INTERAÇÃO ORAL

ANA RITA PEDRO RODRIGUES

RESUMO

PALAVRAS-CHAVE: Educação, Tecnologia, Smartphones, Mobile Assisted Language Learning (MALL), Inglês Segunda Língua (EFL), Tecnologias móveis, Geração Z, Competências orais, Comunicação.

Atualmente é impossível pensar em educação sem que esta esteja aliada à tecnologia. Vivemos num mundo tecnológico, onde a devemos utilizar como uma ferramenta de ensino, não só como prática recorrente dentro da sala de aula, mas também porque nos permite a aprendizagem e a ligação aos alunos fora desta. Considerando o enquadramento histórico da pandemia mundial Covid-19, onde práticas tradicionais de ensino tiveram de se reinventar através do uso dos mais variados dispositivos tecnológicos e onde plataformas digitais passaram a ser aceites e normalizadas como forma de ensino, partimos para uma realidade onde os dispositivos móveis fazem, indiscutivelmente, parte do quotidiano da presente geração de alunos nas nossas escolas. A geração Z, onde se inserem os “Digital Natives”, termo estabelecido por Marc Prensky (2001), que se refere a uma geração que foi a primeira a nascer e crescer num mundo onde a Internet sempre existiu, é uma geração com maior conforto no que diz respeito à utilização da tecnologia. É neste contexto que é necessário entender a importância de incluir as tecnologias móveis no ensino, em particular do Inglês como língua estrangeira, cabendo ao professor tirar partido desta realidade que, para além de outras abordagens, pode incluir as tecnologias móveis dentro da sala de aula, algo que é familiar aos alunos e que pode contribuir para aumentar a motivação e as mais variadas competências, tomando como exemplo a aquisição lexical e a interação oral. A metodologia utilizada ao longo da Prática de Ensino Supervisionada foi a da investigação-ação, onde o professor observa, investiga e explora determinada temática através dos mais variados instrumentos, refletindo posteriormente e tendo como finalidade o seu crescimento profissional e o aperfeiçoamento das suas práticas.

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LIST OF ABBREVIATIONS

AR – Action Research

EFL – English as a Foreign Language

GEN Z – Generation Z

L2 – Second Language

MALL – Mobile Assisted Language Learning

SMS – Short message service

QR – Quick response

INTRODUCTION

The present paper is a critical report of the supervised teaching practice carried out in the school year of 2021/2022 at Escola Secundária Romeu Correia, in Almada. Thereby, this research paper will concentrate on how the use of mobile technology may help promote lexical acquisition and oral interaction skills between students in the English as a Foreign Language (EFL) classroom. The chosen topic resulted from the preconceived idea that the new generations only care about technology and technological devices. So, to what extent is that true? And in this sense, how can teachers use this to their advantage and as a learning tool in the classroom? In order to guide me as a research teacher, I based my study on the following questions: “Will the use of mobile technology in the classroom increase students’ motivation?” And “can it help to promote their lexical acquisition and oral interaction?” Therefore, the aim of this study is precisely to understand how the use of mobile technologies in the classroom increases the students’ motivation towards learning the English language, and how can it foster and promote lexical acquisition and communication skills. Regarding mobile technology, which includes various devices, my focus was specifically on the use of the students’ own smartphones. For the research to work, it was necessary to assure its viability in terms of school administration and the socio-economic context of the students.

With this in mind as a research subject, the lessons were planned to require the use of a mobile phones for at least one activity per lesson, with the goal of developing the students’ skills involving language learning as well as their digital competencies.

In terms of the organization of this report, the first chapter will address the literature review on the chosen topic, giving information and support. It is the basis for the study, as it contextualizes the whole concept of teaching with mobile technologies, from the evolution of technology to the digital era in which we live, showing the relevance and importance of using technology as a learning tool in the classroom, especially in language learning. In this sense, naturally I shall address and deepen the understanding of concepts such as Mobile Assisted Language Learning (MALL). As the study specifically concentrates on lexical acquisition and oral interaction, it is relevant to understand its importance in the EFL classroom. By studying other researchers in this field, it was possible to understand that it is indeed an area in expansion and what benefits and challenges are associated to it.

Moving on to chapter two, the focus will be on the action-research context, as well as the methodology carried out through the teaching practicum, which includes the observation, the planning, and the teaching practice. Moreover, in the third chapter, the results and reflections of the study will also be discussed as part of the development and progress of the trainee teacher.

CHAPTER I: LITERATURE REVIEW

I.1. Contextualization – “Digital Era” and “Digital Natives”

The world today, as we know it, is a result of all the technological advancements that have occurred over the years, and it is impossible to imagine our daily lives without technology. The Digital Age also often referred to as the Information Era, is defined as “the present time, in which many things are done by computer and large amounts of information are available because of computer technology” (Cambridge Dictionary, n.d.), reflecting an essential need for technology in all the different fields and areas of everyday life. Just in Portugal, in the year of 2020, around 85% of the population had internet connection at home, which has seen a growth of 3% between 2021 and the beginning of 2022. In this sense, it is relevant to mention that internet access via a smartphone leads the chart with a statistic of 93.7% of the population (Gomes, M.S., 2022). This makes it possible to observe that in fact, there is a greater ease and preference in the use of mobile technologies, and, as stated by Haris (2016), information has been developed promptly around the world and the invention of new technologies has made it easier for people and businesses. A lot of information migrated from physical to electronic format and modern devices such as smartphones, laptops and tablets were invented in the digital age and are vital for this generation.

Although there is a constant need to use technology for everything in the digital era, it is important to highlight that the Covid-19 pandemic contributed further to this change in the system. Whether it was for work, education or simply to communicate, the world demanded technology in order for daily life to continue. Considering this, we can say that the pandemic had a major impact on educational systems all around the world. The use of technology helped to minimize disruption in education, since it made it possible for learners to have access to online education, whether it was through learning Apps, online platforms that allowed for video conferencing, or virtual classes and tutoring, but most importantly it allowed people to stay connected to information and to continue communicating. Data from the Portuguese Statistics Institute (INE) shows this increase in technology and internet use in the year of 2020 compared to the previous year. It states that:

The population aged 16 to 74 who used the internet in the 3 months prior to the interview did so mostly to communicate and access information, but it was mainly the **learning-related activities that registered the largest increase in 2020**: both the proportion of users communicating with teachers and colleagues through

educational portals (from 14.5% in 2019 to 30.8% in 2020) and of those attending online courses (from 7.7% to 18.0%) more than doubled. (Instituto Nacional de Estatística, 2020).

Considering the Portuguese example and looking at education throughout the world, the use of technology became an even more fundamental part of education, since it allowed and continues to allow us to go beyond traditional learning methodologies, enabling educational progress. Additionally, “mobile technologies are also bringing education to populations that previously had no access to it at all, including rural areas of Africa, Australia and South America” (Robinson & Aronica, 2015, p.65). Therefore, it is of paramount importance that schools and teachers continue to take advantage of this, not only as a tool to promote various language skills, but also to promote digital literacy among learners.

Along with the advancements in technology came the change in the generation of students themselves. The term “Digital Natives” created by Marc Prensky appears in correlation to a new generation of students that were born into a world where technology and the Internet have always been a part of their reality. Consequently, as the same author defends, they will have different learning characteristics. In this sense, Prensky (2001) affirms that “Digital Natives’ brains are likely to be physically different as a result of the digital input they received when growing up” (p. 2).

Another important fact is that, in general, learners are naturally curious, and this leads to a constant pursuit of answers. This new generation has easier and faster access to a myriad of information. All the new technologies have allowed this ease of access to all kinds of content, and it is in this context that students have become “more knowledgeable, interrogative, competitive and more demanding of their teachers” (Sharma, 2017). Considering this, one of Prensky’s suggestions for easily reaching Digital Natives in their “native language” is by learning through the use of digital games. The author argues that Digital Natives “are native speakers of the digital language of computers, video games and the Internet.” In contrast, those who were born before this boom of technological devices are considered “Digital immigrants” in the sense that they had to “learn the digital language” instead of being natives in the matter. Evidently, it is important to understand the difference between both concepts. By using this metaphor of the “native” and the “immigrant”, the objective is to understand the difference in how the brain might be structured. It is from this perspective that Prensky (2001) defends both terms and refers

to the necessity for teachers to “learn to communicate in the language and style of their students. This does not mean changing the meaning of what is important, or of good thinking skills. But it does mean going faster, less step-by-step, more in parallel, with more random access, among other things” (p.4). In light of this, one can consider that mobile technologies are a very important tool for the present and future of the classroom.

Notwithstanding the Digital Native concept, is also important to bear in mind how things are non-linear and how, even though Digital Natives’ brains are shaped differently in terms of technology, it does not imply their preference to the constant use of technology. As authors such as Dudeney, Hockly & Pegrum (2014) defend, “paper and screen are not always interchangeable” (p.8), and despite all the considered facts, “empirical studies show that the notion of a homogeneous, digitally able generation is a myth” (Dudeney et al., 2014, p.10). Nevertheless, the ultimate goal is to work towards the development of digital literacy among learners, in order to “develop strategies to deal with each key area so they can make the most of the possibilities of digital media” (Dudeney et al., 2014, p.6), and therefore, the promotion of lexical acquisition and oral interaction skills through the use of mobile technologies, as the basis of this study, are undoubtedly interlinked, as technology plays an important role as a tool and a resource to support language and communication, as can be seen in Dudeney’s Framework of Digital Competencies (Appendix A).

1.2. Teaching with Mobile Technologies

Mobile technology refers to small electronic devices that are portable, as well as the technology connected with them, and as Klímová (2019) defends, “mobile learning is a well-established methodology thanks to its countless benefits such as accessing learning content anytime and anywhere, adjusting the content to students’ needs, and timely feedback.” Considering that language learning is a process that depends on various factors such as, for example, willingness and motivation, it is possible to facilitate these two factors through the use of mobile technologies, and as a result it can be a tool to promote vocabulary and communication.

Research by authors such as Agnes Kukulska-Hulme or Blanka Klímová has shown that the use of mobile devices and mobile applications has positive effects on foreign language learning, contributing to the development of the four language skills (reading, writing, listening, and speaking). Furthermore, there are endless possibilities for

using mobile devices inside the classroom, as well as the available resources focused on language content, grammar, and vocabulary. Taking this as an example, it is possible to consider that when “equipped with a mobile device, the learner can choose to consult a web page, access audio or video tutorials, send a query via text message to a friend, or phone an expert for practice or guidance” (Koole, 2009), demonstrating how mobile devices may “enable new ways of learning, emphasizing continuity or spontaneity of access and interaction across diverse contexts of use” (Kukulska-Hulme, 2013). Teaching in the digital era implies new challenges concerning the new generation of students, in terms of their needs and how to use technology in the best way possible to meet their developmental needs (Sharma, 2017).

Teachers nowadays, play an important role. It is more than just sharing and giving explicit information. To paraphrase Carvalho (2007), teachers are now learning facilitators in order to support student’s individual and collaborative knowledge. It is necessary to provide them with autonomy, to foster creativity and the development of critical thinking skills. Another important aspect is also the need to promote the student’s digital literacy and, in this context, according to Dudeney et al. (2014):

We need to level up our teaching and our students’ learning accordingly. For our language teaching to remain relevant, our lessons must encompass a wide variety of literacies which go well beyond traditional *print literacy*. To teach language solely through *print literacy* is, in the current era, to short-change our students on their present and future needs. (Dudeney et al., 2014, p.3)

Therefore, and considering the relevance of the teacher's role in learning with technology, it is vital to emphasize the increasing need for teachers to expand their knowledge and skills related to their own use of technology. Stockwell (2022) underlines that “teachers and designers need to have an eye on the future needs and contexts of the learners, in order to assist them in their lifelong learning which will likely be heavily supported by mobile devices” (Stockwell, 2022, p.178). Evidently, only a teacher with interest and advanced skills in the field of technology can promote and streamline lessons oriented towards the use of mobile technologies, which can lead to greater enthusiasm and successful learning achievements.

1.2.1 The concept of MALL

As mentioned before, the field of mobile learning saw a fast development due to the rapid evolution of mobile devices, although Stockwell (2022) defends that still “much of what we will need to understand about MALL is in the future and not in the past.” The truth is that despite some controversial issues regarding teaching with mobile technology, it is evident that it is now integral to our daily lives. “This rapid spread of mobile devices, especially mobile phones, led to their use in education, which resulted in the development of a new field – the so-called Mobile Assisted Language Learning (MALL)” (Klimova, 2019, p.1). Authors such as Glenn Stockwell refer to MALL in the context of learning a second language through the use of various mobile devices. Nowadays, these mobile devices include smartphones, tablets, PDAs, and some authors contend that laptop computers also have a place on the list. The reality is, as Stockwell (2022) defends, that it is possible to observe a merge between the different devices that we have access to, not only in their physical features but also in their software, as laptops nowadays have features that once belonged to tablets and consequently, tablets and now even smartphones have functions that “might have been in the realm of laptop and desktop computers – such as word processing, creating spreadsheets, or other office-related uses” (Stockwell, 2022, p.9). In addition, it is possible to understand that the use of these mobile devices in the classroom to carry out activities and tasks is therefore part of MALL.

The idea of MALL is not only to enrich activities in the classroom, but also to allow for learning to happen outside the classroom, in real-life contexts and in the world. Various authors such as Kukulska-Hulme and Stockwell defend that MALL activities can include more personalized learning. There is the possibility of interacting with the environment using wireless, GPS or QR code functions, and learners also have access to a myriad of resources and authentic materials which is also an advantage for teachers. Another important aspect is that teachers can also add to existing paper-based materials by providing links to multimedia which enable a more interactive experience (Solak & Cakir, 2015, mentioned by Stockwell, 2022, p.10).

Despite being a prominent field, mobile learning does not limit or imply its exclusive use. Activities and tasks carried out in the classroom can be balanced between the use of mobile technologies and perhaps some print or paper-based resources. Nevertheless, MALL can offer a variety of possibilities in terms of language use and it

“can be highly dynamic, creative and personalized if carefully planned and implemented” (Stockwell, 2022, p.10).

I.2.2 Advantages and possibilities of mobile learning

So far in the study, some of the advantages of mobile technologies have already been mentioned, but it seems relevant to consider the main advantages of their use in language learning in more detail. The fact that more than three-quarters of the world’s population owns a mobile device with access to the internet makes their impact on learning and teaching evident. Moreover, most learners have their own smartphones at the time they start studying (Stockwell, 2022). In order to take better advantage of this methodology, we must understand its influence and learn how to “adapt the contents methodologically and pedagogically” (Luque-Agulló, & Martos-Vallejo, 2015).

The physical aspects of mobile devices are indeed one of their main advantages. Their portability and their many functions such as SMS, camera and voice recording features, the different Applications that allow for communication and searching for information through web browsers, have a central position in language learning. Additionally, another important feature is the QR code reader which allows information to be shared and transferred, both inside the classroom and outside of it in real-world situations.

In this sense, mobile learning can be (Luque-Agulló, & Martos-Vallejo, 2015):

- Spontaneous and creative since it can happen at any time without any meticulous preparation and allows the production and sharing of content and materials.
- Private and personalized, meaning that the learning process is adaptable to learners’ diverse cognitive styles.
- Portable and informal, as it allows learning to happen anytime and anywhere.
- Located in real-world context as it can enable authentic learning environments.
- Adaptable to diverse learning materials, and it also fosters collaboration, communication, and interaction.
- Furthermore, technology’s ubiquitous nature enables different learning possibilities.

Bearing in mind the different possibilities of mobile devices, the same authors created a chart listing some of the functionalities within the features of mobile devices.

1. Use of audio to reproduce and record sounds	Listening to the radio, Listening to explanations, tales, stories, concerts, simultaneous reading and listening of texts. Revising exams, gathering opinions from the members of the community, taking audio notes from the lessons in class, recording the teacher's explanation, poems, plays, musical compositions, creating oral summaries of the lessons. Practicing oral expression through tales, poems, debates, creating a radio programme, creating a collection of natural sounds of the atmosphere around the student, making oral reports on works to do in the lessons.
2. Use of camera	Taking pictures or videos to make a slide-based presentation with PowerPoint afterwards, taking pictures on curricular and extra-curricular activities, recording experiments, create a photomontage based on previously read texts, making screenshots to make reports, recording specific aspects of the learning process of a student to gather feedback, taking pictures of an explanation on the blackboard, creating documentaries, carrying out photo contests.
3. Use of SMS (Short Message Service)	Sending marks to the students, reporting the family about their child's absence and proper or improper behavior, informing about the absence of a teacher, informing students about the presence of learning materials in the virtual platforms, notifying students about dates of exams, enrolment dates, fees, tutorials.
4. Usage of office tools	Mobile devices are smaller computers. They will allow students to access their learning materials in different formats such as Word, PDF, Powerpoint, Excel... They can download, edit and store information. Furthermore, they can access dictionaries, encyclopedias, novels...
5. Use of mobile Internet	The possibility to access the World Wide Web through cell phones will allow the students to make treasure hunts, webquests, access wikis, blogs, look for information of web browsers in order to solve doubts...
6. Participation in Social Networking Sites	These virtual platforms are quite widespread, especially among teenagers. Twitter, Facebook or Tuenti foster interaction, collaboration and creativity. Thanks to these sites, students can create content and not only be passive receptors of information.
7. Use of Apps	These applications became popular a couple of years ago. Both Apple and Android allow downloading several educational apps from which users can learn about different areas or fields. Among the most popular apps we can find games, which favor curiosity, experimentation and motivation or GPS (Global Positioning System), particularly relevant to carry out activities dealing with augmented reality or situated learning.

Table 1–Functionalities of Mobile Devices for developing language skills (Luque-Agulló & Martos-Vallejo, 2015, p.86)

By observing Table 1, one can understand how mobile technologies facilitate creativity and innovation, allowing the student to be more autonomous, but also collaborative, and it can also lead them to develop critical thinking skills. The advantages mentioned establish a connection with key factors for learning and also allow for the application of teaching methodologies such as *Task-Based Learning* or the *Communicative Approach*, where the teacher is also allowed to develop classes with authentic materials that correlate to the students' reality, which fosters their necessity in developing communication skills. Reinforcing all these ideas, Luque-Agulló, & Martos-

Vallejo (2015) underline that in terms of second language learning, mobile technologies “can be used to help learners develop skills, both receptively and productively, and reinforce other linguistic aspects, such as vocabulary, grammar and pronunciation” (p. 90), which also leads us to perceive how mobile technologies enable lifelong learning.

1.2.3 Issues and challenges of mobile learning

Notwithstanding all the aforementioned benefits and advantages of mobile learning, there is always the need to consider the challenges of using technology in education. In the context of MALL there are physical, psychological and pedagogical issues to consider. In her latest work, Stockwell (2022) explains that one of the most obvious controversial issues is around the pedagogical aspects – the confrontation between learning through the use of technology versus non-technological methods. On the one hand, technology is the only way to keep up with the times and this makes it an indispensable tool for learning and teaching, whereas on the other hand, it can still be seen simply as a gadget that does not add any real educational value. As the same author defends, the truth is that there must always be a real purpose for using technology in the classroom, and this requires thoughtful planning and implementation in order to observe the “potential to add elements to a teaching and learning environment that can enhance learning” (Stockwell, 2022, p.2). Regarding some of the challenges of mobile technology and learning with mobile devices, it is possible to observe the controversy related to the socioeconomic aspects. What is known as the Digital Divide refers to the disparity between students that may not have access to the different technological devices and the internet. As Stockwell (2022) defends, if technology is used properly then there is a greater chance for better learning opportunities to arise, as it is certain that where there is technology and internet access, learning will always take place. Even so, “requiring learners to use their own mobile devices for education can impart burdens upon those in less advantageous socioeconomic circumstances than their peers” (Stockwell, 2022, p.3). Bearing this in mind seems important, since on the psychological side it could lead to stress and demotivation regarding the whole experience of learning with mobile technologies.

Concerning the physical limitations of mobile learning, it seems relevant to consider features such as the size of the screen, the storage capacity, the processor speed or the battery life, which are still considered some challenges, but which with technological advancements are becoming less prominent.

Lastly, one of the issues falls upon the importance of the teacher's role, since "mobile devices may require a more vigilant approach" (Stockwell, 2022, p.13). The teacher's knowledge regarding technology use also plays an important role, but frameworks such as TPACK (Mishra & Koehler, 2006) "have been used as a model for teacher education, allowing teachers to see the position of technological knowledge as part of teaching practice" (Stockwell, 2022, p.189). It seems it is important to achieve the right balance between the benefits and the challenges of teaching with mobile technologies.

I. 3. Lexical acquisition and oral interaction skills

Considering that the present study is based on the use of mobile technologies in order to promote lexical acquisition and communicative skills, it seems relevant to refer to how the whole process of lexis and vocabulary develops and how significant it is in the field of language teaching.

Regarding the acquisition of a second language, one of its fundamental matters lies in the process responsible for linguistic knowledge. Considering this, different theories are contemplated in which the debate is between explicit and conscious learning of grammatical rules and, conversely, whether it is an acquisition process (Madeira, 2008).

As Madeira (2008) considers, acquisition and learning differentiate themselves in at least two domains:

(...) assume-se que o termo aprendizagem se refere a um processo activo de construção de conhecimento, que resulta na criação de representações **explícitas** e **conscientes** da gramática da L2, geralmente (mas não necessariamente) através de instrução formal. A aquisição, por seu turno, é definida como um processo passivo e **não-consciente**, que resulta na criação de um sistema de conhecimento implícito da gramática da L2 (...).

Being conscious of the difference between the two allows for a better understanding of how mobile technologies may affect lexical acquisition. Due to a more spontaneous and informal use of mobile technologies by learners, it consequently leads to an unintentional process of vocabulary acquisition.

Taking into consideration studies done in experimental groups by authors such as Neo (2014), Klímová (2019) or Wang et al. (2014), positive results were seen in terms of language acquisition, and the authors concluded that the use of mobile technologies can indeed increase motivation and positive attitudes towards vocabulary tasks.

CHAPTER II: THE ACTION-RESEARCH

II. 1. Context and orientation documents

The supervised teaching practice was carried out at *Escola Secundária com 3º ciclo Romeu Correia*, in Feijó, Almada. This school serves as the headquarters for the *Agrupamento de Escolas Romeu Correia*, which also includes *Escola Básica 2/3 da Alembrança*, *Escola Básica nº1 e nº2 do Feijó*, and *Escola básica Vale de Flores*.

The school is named after the Portuguese writer and athlete Romeu Correia, who was born and lived his life in Almada. It is a highly reputed school for students with visual impairments, which provides educational offers in the areas of Braille Literacy, orientation and mobility, curriculum access, daily life activities and the development of social skills. It is organized to support learning and inclusion and it provides a specialized educational offer in the area of vision, with specific equipment and materials that ensure accessibility to curriculum information and participation in school activities (Regulamento Interno AERC, 2021).

The research was conducted in a year 10 class (10B1), although a few lessons were taught in class 10A1 and observation was done in all three of the co-operating teacher's classes, as well as some classes from key stage 3. Class 10B1 started the year with 32 students on the register, but throughout the school year this number changed, and the class ended with 27 regular students. It was made up of 12 girls and 15 boys with an average age between 15 and 16 years. One of the girls only joined the class in February. She had just moved from Guinea-Bissau and had recently gone blind. She was enrolled in this school since it is a highly esteemed school in the area of vision. Her English level was of a beginner and since she was only now starting to learn Braille and how to use technology for the visually impaired, the work carried out with this student was done outside the scheduled lessons of class 10B1 and in a one-to-one context at beginner level.

Class 10B1's lessons took place twice a week, on Tuesday mornings and Wednesday afternoons. In general, the class was very social, which facilitated some participation. Even so, it was a somewhat heterogenous class in the sense that it was possible to find very good students and in contrast, some students with notable difficulties in terms of comprehension and oral interaction. There was a small group of students who participated regularly and showed interest in the activities and the topics of the lessons. Apart from this group, the rest of the students had to be encouraged to participate, and

still, there was another small group of students that regularly maintained a somewhat disinterested attitude regardless of the variety of activities brought to class.

Throughout the year and having had experience in the classroom, it became clearer that the need to foster digital literacy in schools and among students is very important, and it was in the light of some orientation documents that this research was also conducted, such as the ones published by the Council of Europe, which contemplates digital literacy's importance in the *Common European framework of reference for languages: Learning, teaching, assessment: Companion Volume (2020)*, which demonstrates the standards for language abilities, establishing the eight essential competencies for a lifelong learning environment. Another relevant orientation document is the *European Digital Competence Framework* (European commission, 2017), also known as DigComp, which identifies tools to improve citizen's digital competence, for education, work, and leisure. Another orientation document that was always kept in mind, as it is a guide in terms of students' competencies, was the *Perfil dos Alunos à Saída da Escolaridade Obrigatória (PASEO)*, which also contemplates digital literacy as part of the competencies that must be acquired by students throughout their academic career. Therefore, we must recognize the importance given to learning with technology and about technology.

II. 2. Methodology

II.2.1 Action Research

Action research was the methodology adopted during the Teaching Practicum. This approach allows teachers to be researchers in their own teaching environment. One of the main goals is for the teacher to identify an issue, research it and reflect upon an action plan for that subject matter. As Burns (2009) mentions, action research is related to a reflective practice where the teacher acts as a researcher. There are four different phases to consider in the action research methodology: planning, action, observation, and reflection. It is in this sense that this methodology gives teachers the opportunity to develop critical skills regarding their teaching practices, in order to reinforce this idea, and to quote Burns (2016), it allows teachers “to gain greater insights into their practices, to renew their pedagogical approaches in their local contexts, and to accommodate recent innovations or changes in teaching approaches” (Burns, 2016). Evidently, the possibility to follow this approach during the Teaching Practicum gives the trainee teacher a variety

of tools, starting now and continuing into the future, in order to evolve better as a professional.

II.2.2 Class observations

As part of the supervised teaching practice, observation was the first step, and it was done during the first semester of the academic year. Following the action research methodology previously mentioned, observation is an important phase in order for a critical reflection to be carried out afterwards, since it is part of the learning process as a teacher and serves as a strategy for improvement, as well as a tool for better learning and the implementation of pedagogical practices in the future. In-keeping with this idea, as Wajnryb (1992) states, observation in a classroom goes beyond just seeing what is happening. Instead, it is a deeper process and allows the teacher to follow-up on analysis, discussion and interpretation of the data collected and, on the experiences, lived inside the classroom (Wajnryb, 1992, p.1). Also, as the same author defends, observation is not an easy task, but it is a learning process that can improve with practice.

As a trainee teacher, I experienced some difficulties in the beginning of the observation phase, since it requires some background study and preparation on how to observe, but undoubtedly it provided a better understanding of the co-operating teacher's teaching approaches, the learning and interaction processes, as well as the environment of the class. Throughout the observation process and in order to take better advantage of this phase, a diary was kept with all the notes so that the observations could be discussed during the weekly meetings with the co-operating teacher and the internship colleagues. These meetings happened throughout the whole supervised teaching practice and allowed the trainee teacher to reflect and understand how to subsequently plan and execute lessons for the class. These meetings were valuable in the sense that it was an opportunity to discuss and debate the methods and the approaches used in the classroom, and it resulted in very useful and important learning moments in terms of self-awareness.

During the first lesson of class 10B1 – the introductory class – what was observed was a teacher-centered class which appeared to be due to the fact that it was a lesson designed to guide the students on what will be expected of them during the school year. In an assertive but polite manner, the teacher informs the students of the classroom rules, the rules for the assessments, and other general and important information such as expected behavior and evaluation. Reflecting upon this lesson, it is a crucial lesson as it establishes the expected context of the class from the very first day. All the observed

classes were related to a variety of activities which contemplated different strategies and tasks.

It was in this context of observation as a learning tool that I was able to identify some of the aspects that are hugely important to consider and to observe in the classroom, such as time management and the instructions given; the teacher's attitude and position in the classroom; the use of the board and the use of worksheets to guide students, since a course book was not used; the strategies regarding grammar lessons and how it was always taught in the context of the lesson; and the use of technology as a tool for learning. Considering this and after learning and reflecting on the observations made, classes were planned with balanced and innovative features in mind and were focused on the four main competencies of language learners: Speaking, listening, reading, and writing.

II. 2.3 Planning and teaching

Planning is a valuable and helpful step, and as mentioned by Scrivener (2005), "anything that you can do to learn and progress as a teacher is a kind of action research." Although every class is different and might have some unforeseen events, planning is necessary for a teacher's growth and development process. On the one hand, planning is essential, as it helps the teacher to think and be clear about what they want to do. On the other hand, teachers can never completely predict how students will respond to a lesson, but good preparation can result in a greater ability to deal with whatever might happen, as it increases the chances of a successful lesson (Scrivener, 2005). For trainee teachers it is undoubtedly a "safety net" that will guide and encourage their experiences and practices. Nevertheless, the lesson plan should not be a closed guide for the teacher to follow precisely. One must not forget that in the reality of the classroom, unexpected things happen and sometimes it will be necessary to change plans. Taking what was mentioned above in relation to the observation phase as an example, teaching grammar in the context of the lesson sometimes leads to changes in the lesson plan, but this does not mean that it is negative occurrence. On the contrary, it is perhaps the most beneficial way to teach and introduce grammatical knowledge.

The classes were taught following the Communicative Approach and *Task-based Learning*, and the lesson plans were designed to explore the use of technology and at least one of the activities on the plan would require, particularly, the use of mobile phones. In addition, class discussions were held in order to promote the students' lexis and oral interaction.

The action research plan contemplates the study of how the use of mobile technology in the EFL classroom can promote lexical and oral skills. It aims to understand to what extent the students would feel motivated and whether such motivation would additionally lead to greater involvement in the English classes, and therefore result in lexical development. Additionally, part of the trainee teacher's action research plan was for the students to understand that mobile technology can be used in the classroom for their benefit, and to use sociocultural knowledge on the topic to educate the students about the benefits, as well as to raise awareness regarding the use of technology.

In the first lessons, a questionnaire (appendix B and C) about the use of smartphones in class was answered by the students, not only to gather some data regarding the topic, but to understand whether every student owned a device and what their preferences were. Considering the General Data Protection Regulation, the names of the students will not be shared and instead they will be mentioned numerically as student 1, student 2 and so on. The questionnaire was done in both year 10 classes, as the idea was to collect data among a larger number of Gen Z's, with the aim of confirming or deconstructing some of the study from the theoretical framework.

Analyzing the activity, every student answered "yes" to the question "Do you own a smartphone?" Only one student out of the 50 that answered the questionnaire said that he did not like to use his mobile phone in class. When asked what type of activities they find important in their English class, the majority of the students said that activities involving oral interaction and discussion are the most important as they help them acquire vocabulary. Another aspect that students mentioned was that they would like to learn how to use the internet properly as an academic tool. Another relevant question was whether any of them had a learning App on their smartphone, to which 30 students responded "yes" and 20 responded "no", showing a small difference of only ten students. In spite of the fact that students do have learning apps and that they might use them when needed, when students had to choose the two main reasons why they use a mobile phone, not even one chose the option "to learn", which brings about the idea that even though it can be used to learn, the students mindset is not yet established to automatically think of a mobile phone as a learning tool. Another interesting answer to observe was the fact that in both classes more than half of the students answered "yes" when asked if they could live without their mobile phone. Assuming that the students were honest in their answers, it

is very interesting to observe that even though they are Digital Natives they consider themselves able to enjoy a life without their smartphones.

The aim of the questionnaire was to have direct responses regarding the subject matter of the study, and also to ensure that the necessary conditions for the use of smartphones in class were met, in the sense that it is necessary to ensure that no student is discriminated against due to lack of access to mobile devices. One of the controversial aspects regarding MALL is related to the socioeconomic circumstances that may contribute to feelings of inferiority between students, which instead of maximizing their learning engagement may have the opposite effect. In practical terms, the questionnaire was done using the platform Google Forms and it was shared with the students, in class, through a QR code (Appendix D) which was projected on the board so that the students could scan it and have access to it. Using QR codes to share the lesson's activities with students was a helpful tool, since it was the easiest way for the students to have access to the planned activities on their mobile phones. As defended by Stockwell (2022), "these interactive tools make it possible to link learning resources together with the real world, and hence, can give learners a greater sense of reality with regards to their language learning" (p.29). Therefore, it is easy to understand that the use of QR codes enables information to be quickly shared in class, in real time, and results in a more interactive activity.

The lessons were planned and created with the use of authentic materials following the national syllabus for year 10. In this sense, lesson 9 (Appendix E) explored the topic of cybercrime – specifically phishing scams. The students watched a video about the topic and, in order for the students to pay close attention to the video, they were required to scan a QR code that led them to a True or False Google Forms quiz (Appendix F). The idea of the activity was for the students to read the questions and then watch the video in order to answer. This activity was very well accomplished by the students. They were engaged and motivated while watching and completing the true or false quiz. It was a simple way to combine competencies such as listening and reading as the students were able to listen to the video and then read the questions about it. Some of the terms were consolidated due to the fact that they read it on the quiz, individually on their mobile phones, thus leading to vocabulary acquisition.

Lessons 12 and 13 were dedicated to extensive reading. In order to increase motivation, the teacher created a power point presentation. In it there was a game in which

the students were asked to guess the authors of the short stories to be studied, after being shown some images of the authors' different works. Considering the age of the students, the game was quite challenging, and because of this the trainee teacher then asked the students: "nowadays, when we don't know something, what do we do?" It was very interesting to watch how the students first reaction was precisely to take out their mobile phones and google it. The intention was exactly that – to analyze the students' behavior regarding this positive environment of using the mobile phone to instantly google something in the context of the lesson. Another planned task was for students, in groups, to quickly research about the authors. They were given the instructions on what to research for, and then proceeded to use their smartphones to do so. Afterwards the students presented their findings to the rest of the class. They worked in groups but were also able to be autonomous and research using their own devices. Meanwhile the teacher adopted the role of monitor by walking around the classroom and assisting each group that needed help, because during the task students would ask the teacher about new words they were reading online. Reflecting on this lesson afterwards, it was possible to understand how it contributed to the acquisition of new vocabulary.

The plans for lessons 21 and 22 were dedicated to the sociocultural content of the evolution of the Media. As can be seen on the lesson plan (Appendix G), the task was for the students to create their own piece of news. After some classes on the topic of technology, communication and Media and after studying the various concepts related to news formats, the plan was then for the students to, in groups, create a piece of news using their mobile phones. This activity was carried out in the classroom. There were 6 different groups, and each group had a different news format to create with the news topic given to them. The students created the different types of news using their smartphones, as they were able to have access to different platforms and apps to do so. For the television news format, students were able to use the camera to record and apps such as *iMovie* and *inshot* to edit the work. For the radio news format, the students used an app called *Anchor* which allows for voice recording and editing. For the written news format, students were able to use platforms such as *Google Docs* and *Microsoft Word*. As the activity took longer than expected to complete, the students were allowed to finish the assignment at home and email the trainee teacher the finished work to be corrected so that in the following class each group could present their piece of news to the class. As mentioned before in relation to the unforeseen circumstances that might happen in the context of the

classroom, this class was an example of this. Since the activity took longer, it was impossible to complete it in that same lesson, hence why it was changed to a homework activity. In the end, this turned out to be somewhat more comfortable for some of the students who expressed their preference of using a larger device, such as a tablet or a computer, to complete some details of the assignment. Overall, it was a positive activity in terms of motivation, autonomy, and discovery.

CHAPTER III: RESULTS AND REFLECTIONS

III. 1. Results and reflections on the teaching practice

Over the period of nine months of the supervised teaching practice, the opportunity to conduct research following an action plan was crucial in enabling personal and professional growth and evolving as a teacher.

The reflection phase of the action research methodology is very significant in the sense that plays a major role in the teacher's development in terms of self-awareness and critical skills. Furthermore, as Burns (2010) defends, reflection is not just the end of the action research cycle, but rather it is something that happens throughout the process, from the beginning until the end of the research, as it "involves creative insights, thoughts and understandings about what you have been doing and finding, and it happens right from the beginning. For action researchers, reflection flavours and moulds the whole AR experience" (Burns, 2010, p.141). As part of the experience and learning process, I faced some challenges not only regarding the topic of mobile technology in the classroom, but also in terms of my practical knowledge as a teacher. The weekly meetings with the cooperating teacher, the feedback from students and reflection time, where I tried to be critical with myself, were essential to my evolution in my teaching practices. Reflection after the observation and after the implementation of the action plan is fundamental, as it helps the teacher to understand and to be aware of the class environment, to think and to analyze the best approaches to take. All of this contributes to a thoughtful, attentive, and reflective teacher.

During the observation phase, I tried to understand how the cooperating teacher managed the use of mobile phones in the classroom, as it was also a practice that she followed. Having observed her teaching experience on the matter, I believe that her assertiveness encouraged a focused learning environment, and I noticed that because of this the students complied very well with the instructions given regarding the use of mobile phones in the classroom. Another important aspect that I tried to observe and understand was the difference between a student that is using the smartphone in the context of the lesson and the student that is using it for leisure. I came to understand and to be aware of the fact that most of the time the students' behavior, as well as their body language, changes when using the mobile phone for a purpose other than that planned for the lesson. As they are so used to not being allowed to use these devices inside the

classroom, they tend to, for example, hide the device when using it as a distraction rather than a working tool. By reflecting afterwards on what I had observed, it was possible for me to learn and to take with me new strategies and approaches worth following.

It was in this context that the use of mobile technology in the classroom had an outcome that was overall very positive. However, one could say it was also a challenge. Considering the planned activities, it is possible to conclude that the students were engaged and motivated when using their smartphones in the classroom. Even if at first they did not realize that the devices would be a tool for their learning, I could observe some positive results. Recalling one of the first tasks in which a QR code was shown, the students' first reaction was surprise and excitement, and this led me to believe and assume that it was one of the first times they were having access to this type of materials in the classroom. This clearly exemplifies the lack of use of technology by teachers and how students enjoy learning with it. In my opinion and from my experience, I cannot imagine planning and teaching classes without resorting to technology, and as I mentioned before, the use of QR codes to share some of the planned activities with students was beyond useful and allowed me to bring authentic materials to class, giving students access to work with technology and online platforms on their own devices. This allowed and contributed to a somewhat more active participation by the students.

Using Google Forms for the true or false quiz in the lesson about phishing worked very well. It was a certainly a helpful tool to consolidate the vocabulary from the video that the students watched. Not only did the learners show enthusiasm because it was a very interactive activity, but it was possible to observe that the students were more engaged in the task due to the fact that there was a practical purpose for what they were watching. As a result, I was able to later observe in other lessons, as well as in the written feedback¹, that some students were using new vocabulary which they had acquired in this lesson. Another relevant lesson was the one regarding the motivation for extensive reading. I observed very positive results in terms of the students' autonomy when conducting the research about the authors, as well as their enrichment in terms of learning new words and terms related to the life of the authors.

¹ To assess their written skills each semester, the students were required to write at least three pieces of feedback. This feedback would be about different lessons. Students were free to give their opinion and suggestions about the topics of the lessons, the approaches, and the teachers.

It was possible to analyze that, when the students were asked to use their mobile phones to research something specific, they regularly asked questions about new words they would encounter online, and they would then try to find out the meaning and proceed to use them orally. Overall, the use of mobile devices was indeed a motivational tool that led to some quite positive results concerning their lexical skills.

III. 2. Challenges and final considerations

Despite some challenges regarding the overall teaching practice and the action plan implemented, I can say that the results were positive overall. One of the biggest challenges as a trainee teacher was the balance between the development of the action plan regarding the chosen topic and my practical skills as a teacher. The beginning phase of teaching was very challenging for me because of my inexperience as a teacher, meaning that I spent extra time on the practice itself, and I realized that later I was lacking time to deepen the study as I could have used more online platforms or carried out more activities with the use of mobile technology. However, in this sense, and reflecting upon it, I accepted it as part of the whole learning experience, since it allows me to now be critical and to do better in the future.

After each lesson I would reflect and discuss my performance with the cooperating teacher to address my weaknesses and thus work on them so that I could evolve in my practices. The weekly meetings with the cooperating teacher and with my internship colleagues were crucial opportunities for conversation, discussion, and learning.

Using technology in the classroom is part of our reality as teachers, whether it is by using the computer to mark attendance and write down the plan, or to simply project an image or a power point presentation. In this sense, I became more aware that, even though technology is essential in education and specifically in the classroom, one of its negative features is that it still fails, because most of the time it is influenced by external factors. In general, I never encountered major technical difficulties regarding the school devices or the internet access. Ever since the beginning of the year, the cooperating teacher had suggested that I always carry a pen drive with my lesson plans and materials – advice that I followed and, in this sense, I was always prepared for unexpected situations that might occur.

Considering the practical use of mobile phones, one of the major challenges was to be able to successfully manage the whole class without having students becoming

substantially distracted from the topic or the activity. As I mentioned above, the class was very challenging since it was a large number of students and because of their very social behavior. Some students were extremely engaged in the tasks and others were easily distracted, which sometimes resulted in some students subtly trying to access social media instead of following the task instructions. These occasional situations were easily managed, and the students would respond well and proceeded with the task.

Overall, I would consider class management one of the most challenging circumstances regarding the use of mobile phones, as it depends on many factors such as, for example, the age and maturity of the students, the type of class, the engagement of the students, their knowledge on the matter and, most importantly, the teacher's experience and knowledge. In conclusion, the use of mobile technologies is undoubtedly necessary and important for the motivation and development of the students. Nonetheless, it requires an environment that is prepared for it, with easy access to the devices and qualified teachers at its core.

III. 2. Other school projects

Apart from the work conducted inside the classroom, other projects in the school context were developed. With the two year 10 classes, I arranged and organized a school trip to a theater in Lisbon. As a trainee teacher I coordinated all the logistics related to the school trip, such as the communication with the school administration, with the theater, with the bus rental company, as well as the permission slips and authorizations from the parents.

The students watched an interactive play in English, meaning that they were able to participate in the play and were therefore able to practice their speaking skills in a real-life context. As Scrivener (2005) defends, “language learners need more than to just listen to explanations, they need exposure to comprehensible samples of language and chances to play with and communicate with the language themselves” (p.19). This experience was exactly that – the students were given authentic conditions in which to practice their language skills. The feedback from the students was very positive. They were enthusiastic and expectant, considering the fact that for the past two years the students were not able to have any school trips due to the Covid-19 pandemic, so it was with great joy that this activity was conducted.

During the second school semester, I was also able to collaborate in the “Apoio” classes, which were 45-minute tutoring classes for the students that presented some difficulties in the English classes. These “Apoio” classes were given on Friday mornings to each year 10 class. As mentioned before, I also gave beginner level tutoring classes to the blind student from class 10B1. I decided autonomously and voluntarily to participate in these “Apoio” classes, as a way to develop my knowledge and practices as a teacher.

Another project I was involved in concerned the field of “Cidadania e Desenvolvimento” – part of the Ministry of Education curriculum in schools which contemplates the area of environmental and animal protection. I worked closer with a group of students and organized a visit to an animal shelter. Together we donated goods and participated in a day of volunteering.

In this sense, it was meaningful and rewarding to organize and be part of these small projects outside the classroom, which demonstrated that being a teacher goes beyond the four walls of the classroom. As a result of my experience, and since I am truly a believer of the fact that establishing relationships is immensely helpful for the students to easily engage and feel motivated in the teacher’s subject, I tried to implement this idea and, once again, to be a research teacher in order to explore the importance of this concept of building a relationship with students. Throughout the semester, as far as planning and teaching the lessons were concerned, I always kept in mind the idea shared by Robinson and Aronica (2016), whether it was by exploring the use of mobile technologies in the classroom or by taking part in these small projects that happened alongside the regular classes: “The basic prerequisite for effective education is to cultivate students’ enthusiasm for learning” (p. 231).

CONCLUSION

Using mobile technologies as part of my supervised teaching practice gave me and the students the ability to unlock a world of new opportunities and knowledge, and hopefully this study may demonstrate in some way the potential and the benefits of using mobile technologies in the classroom context. It is right to say that learning a new language is a process, which takes time and consistency. Mobile devices such as smartphones are an excellent tool in this process, as their presence in our daily lives is granted, and due to their ubiquitous nature, they can go beyond the physical space of the classroom. As Robinson and Aronica (2016) defend: “A great deal of learning – and education – goes on outside the formal setting of schools and national curricula. It happens anywhere there are willing learners and engaging teachers. The challenge is to create and sustain those experiences within schools” (p.72). It is in this sense that we can understand how relevant technology is and what a significant part it plays in language learning. Nowadays students are always surrounded by technology wherever they go. The possibility to take advantage of technology, mobile technologies and the internet is crucial and indispensable, as it makes it possible for us to involve students in a continuous learning environment.

By using mobile technology in the school context, the teacher is able to easily connect with the students, whether it is through the planned lessons that may be more dynamic and engaging, or through the possibility of using it outside the classroom in order to continue the learning process. Taking my experience as an example, in the conducted study, students had access to the lesson materials in Microsoft Teams, could send assignments and receive corrections and connect with the teacher through email anytime they needed to. The aim is to always bear in mind the purpose behind the use of mobile technologies in the classroom. As Stockwell (2022) suggests: “Mobile Technologies should take advantage of the affordances of the devices that enable learners to interact with their surroundings, but should do this in a way that has sustainable pedagogical goals in mind” (p.172).

Throughout the teaching practicum, it became clear to me that technology must be integrated in education and that it allows learning to happen in a more interactive and engaging manner. I realize that still not all schools have easy access to mobile technologies, either for economic reasons or due to administration rules, but I still consider it a path worth following, and the more qualified and technology-oriented

teachers are, the more this practice can continue. Therefore, I am certain that I will continue to use mobile technologies in my future professional life, just as I will maintain the action-research methodology to enhance my teaching practices and professional growth. I hope that the chosen topic and all the research done contributes in some way to broadening people's horizons with regard to the use of mobile technologies and MALL.

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APPENDIXES

APPENDIX A

Dudeney's Framework of Digital Competencies

	First focus: Language	Second focus: Information	Third focus: Connections	Fourth focus: (Re-)design
↓ increasing complexity ↓	* Print literacy Texting literacy			
	** Hypertext literacy	Tagging literacy		
	*** Multimedia literacy	Search literacy Information literacy Filtering literacy	Personal literacy Network literacy Participatory literacy	
	**** Gaming literacy Mobile literacy		Intercultural literacy	
	***** Code literacy			Remix literacy

APPENDIX B

Class 10A1- Questionnaire results

Name	Do you have a Smartphone?	What is the number one reason?	What is the second reason?	Which App/online platform?	Could you live without your smartphone?	Do you like to use your smartphone?	Do you have any learning app? If yes, which one(s)?	What type of activities do you think are important in the English classroom?	
Aluno 1	Yes	Social media	Communication	Instagram	No	Yes	Yes	Hey Japan	Pronunciation practice
Aluno 2	Yes	Social media	Learning	Instagram	Yes	Yes	Yes	Duolingo	Dicionário, trabalhos de pesquisa
Aluno 3	Yes	Communication	Social Media	Instagram	No	Yes	No		Trabalhos de grupo
Aluno 4	Yes	Social media	Communication	instagram	No	Yes	Yes		i think that it's important to have more listening activities
Aluno 5	Yes	Communication	Social Media	Instagram	No	Yes	Yes	Photomath	Group project
Aluno 6	Yes	Communication	Searching for information	Spotify	No	Yes	Yes	Duolingo	Discussing topics in English
Aluno 7	Yes	Communication	Social Media	Instagram	Yes	Yes	Yes	Oxford dictionary	Search information
Aluno 8	Yes	Playing Games	Searching for information	Youtube	Yes	Yes	Yes	Oxford dictionary	Search information
Aluno 9	Yes	Communication	Searching for information	Instagram	Yes	Yes	Yes	Dictionaries, teams and c	Interactive activities, group work and learning games
Aluno 10	Yes	Communication	Social Media	discord	No	Yes	Yes	Google	searching for info
Aluno 11	Yes	Communication	Listening to music	Instagram	No	Yes	Yes	Duolingo	Discussing topics
Aluno 12	Yes	Listening to music	Social Media	Spotify	No	Yes	Yes	Duolingo	Listening, worksheets, discussing topics in english
Aluno 13	Yes	Communication	Reading books or news	Whatsapp/twitter	Yes	Yes	Yes		Oxford dictionary
Aluno 13	Yes	Communication	Social Media	Tik tok	Yes	Yes	Yes	Duolingo	Discussing with classmates about the the topic
Aluno 14	Yes	Social media	Communication	Tiktok	Yes	Yes	Yes	StudySmarter	Activities where we can discuss the exercise with our colleagues.
Aluno 15	Yes	Communication	Social Media	Tik tok	Yes	Yes	Yes	Duolingo	Discussing with the classmates about the topic
Aluno 16	Yes	Communication	Searching for information	Instagram	Yes	Yes	No		something related to learning by listening
Aluno 17	Yes	Communication	Social Media	Instagram	No	Yes	No		Relacionadas com aprender mais sobre a lingua inglesa
Aluno 18	Yes	Social media	Listening to music	Instagram	No	Yes	No		Related to learning more about the language maybe with music
Aluno 19	Yes	Communication	Social Media	At this moment is blockpu	Yes	Yes	Yes	resumos and Photomath	Activities like kahoot or discussions about some theme with our classmates
Aluno 20	Yes	Communication	Social Media	YouTube	Yes	Yes	No		Debates
Aluno 21	Yes	Communication	Social Media	Youtube	Yes	Yes	Yes	Pons translator	Debates
Aluno 22	Yes	Communication	Searching for information	Instagram	Yes	Yes	Yes	Dictionary	Using the internet for good learning
Aluno 23	Yes	Communication	Listening to music	YouTube	Yes	Yes	Yes	English dictionaries	Interactive activities that we can use the internet for research.
Aluno 24	Yes	Social media	Games	Youtube	Yes	Yes	Yes	Oxford dictionary	Permission to use mobile phone for research

APPENDIX C

Class 10B1- Questionnaire results

Name	Do you have a smartphone?	What is the number one reason?	What is the second reason?	Which App/online platform?	Could you live without you?	Do you like to use your smartphone?	Do you have any learning app?	If yes, which one(s)?	What type of activities do you think are important in the English classroom?					
Aluno 1	Yes	Communication	Social Media	Instagram	No	Yes	No		Learn about other cultures, learn the English language					
Aluno 2	Yes	Communication	Listening to music	ESound	No	Yes	Yes	Resumos	Talking activities					
Aluno 3	Yes	Communication	Listening to music	Instagram	Yes	Yes	No		Debates on the various topics covered.					
Aluno 4	Yes	Communication	Social Media	whatsapp or spotify	No	Yes	Yes	youtube	Activities of listening					
Aluno 5	Yes	Communication	Social Media	Instagram :)	Yes	Yes	No		I think debates are very important to understand everyone's opinion, watching videos and listening to music is very good to learn as well, so I think that's important as to.					
Aluno 6	Yes	Communication	Listening to music	Spotify	Yes	Yes	No		Everything that includes oral communication					
Aluno 7	Yes	Communication	Listening to music	Youtube	Yes	Yes	No		Watch videos					
Aluno 8	Yes	Communication	Social Media	Whatsapp	No	Yes	No		I think it's important to see some videos and music and then comment on how we do during some classes and I also find it interesting to do some kahoot which is another interesting activity					
Aluno 9	Yes	Listening to music	Communication	Spotify	Yes	Yes	No		grammar activities					
Aluno 10	Yes	Communication	Listening to music	WhatsApp	Yes	Yes	No		Reading and comprehension activities.					
Aluno 11	Yes	Communication	Listening to music	Snapchat	Yes	Yes	Yes	Google	Oral activities					
Aluno 12	Yes	Communication	Social Media	YouTube	Yes	Yes	No		Oral activities (involving speech knowledge)					
Aluno 13	Yes	Communication	Social Media	YouTube	Yes	Yes	No		Dynamics activities					
Aluno 14	Yes	Social media	Reading books or news	instagram	Yes	Yes	Yes	"Resumos"	In line with opinion, the activities that are most important are the understanding and activities we do with games. Example: kahoot					
Aluno 15	Yes	Communication	Social Media	Tik tok	No	Yes	Yes	Google	comprehension activities					
Aluno 16	Yes	Communication	Social Media	Instagram	No	Yes	Yes	Duolingo	Acho que mais videos					
Aluno 17	Yes	Social media	Listening to music	Snapchat	Yes	Yes	Yes	Google	Ler mais					
Aluno 19	Yes	Communication	Social Media	Whatsapp	Yes	No	No		Vocabulary because my vocabulary is very scuffed					
Aluno 20	Yes	Communication	Listening to music	Netflix	Yes	Yes	No		Oral activities, grammar activities					
Aluno 21	Yes	Communication	Social Media	instagram	No	Yes	No		speaking and grammar activities					
Aluno 22	Yes	Communication	Social Media	Instagram	Yes	Yes	No		I think it's important when the teacher talks to us I think we learn the material better					
Aluno 23	Yes	Communication	Social Media	WhatsApp	Yes	Yes	Yes	Resumos	grammar activities					
Aluno 24	Yes	Communication	Social Media	WhatsApp	No	Yes	Yes	Duolingo	Comprehension activities					
Aluno 25	Yes	Communication	Social Media	Youtube	Yes	Yes	Yes	Theo app is called resum	Communication activities					
Aluno 26	Yes	Communication	Listening to music	Spotify	No	Yes	No		Learning english					

APPENDIX D

To facilitate access to the questionnaires

Questionnaire QR code - 10A1



Questionnaire QR code – 10B1



APPENDIX E

Lesson Plan



AGRUPAMENTO DE ESCOLAS ROMEU CORREIA ES C/ 3º CICLO DE ROMEU CORREIA

10º Ano
O Mundo Tecnológico
Turma 10ºB1

Ano Letivo: 2021-2022
Prof. Estagiária Rita Rodrigues
22 de março 2022

Learning objectives	Contents	Procedures	Interaction	Time	Materials and teaching aids
	Technology	Plan Class discussion about cybercrimes. Phishing and identity theft – reading comprehension.	Teacher ↔ Class	10min	Board Computer
To learn about cybercrimes	Digital citizenship	Introduction	Whole class	20 min	board Projector YouTube video
To learn about identity theft	Cybercrimes	Last class we talked about the things that can be stolen from you. We reached the idea of personal things – What identifies you? Someone pointed out “ID card” – An ID card identifies you; it contains your personal/private information. It is part of your identity .			
	Phishing	Nowadays we share a lot of information online, we are digital citizens as much as regular citizens, how easy is it to have your identity stolen?			
	Scam	-How can your identity be stolen? The teacher will ask the students to think for a minute and then answer the question. A video will be shown in order to discuss the topic.			
		https://www.youtube.com/watch?v=XsOWczwRVuc&list=PL-u7fn4KKhhhcMOUe_5xDcwlabsJsajsDX&index=6&t=122s		10 min	Google Forms questionnaire
		The teacher will share with the students a QR code that leads them to a true or false questionnaire, with the questions in mind students should pay attention to the video in order to answer the questionnaire afterwards. The questions will appear in random order, so that students pay attention throughout the whole video without memorizing the order of events in the video. Correction will be done together.			
		After watching the video students will try to answer the following question: -What can happen when someone's identity is stolen? Teacher will write the students' ideas on the board in order to match the 5 main ideas in the PowerPoint presentation. (What can happen if thieves steal your identity; cyberbullying someone, create false documents, catfish someone, steal money from you, get loans, a job or a driver's license).	Whole class	10 min	Board PowerPoint presentation
To recognize phishing scams		Task The students will read out loud the text and then each pair will complete the phishing worksheet. Correction will be done with the whole class, giving each pair the opportunity to share their answers.	Pairs	30 min	Phishing worksheet

		Post-task (if there is time) If there's time, the teacher will show a small part of a video from the comedian James Veitch, called "What happens when you answer spam email". https://www.youtube.com/watch?v=4o5hSxvN_-s&t=463s (from min 7:50 – until the end) -What was this small part of the video about? -What are the things that the comedian pointed out to be obvious? -What can we conclude? (As we've seen in the other video and now in this one, phishers are people on the other side of the computer trying to see if anyone bites the bait, even when the schemes are obvious. That's why it is very important to be aware of these types of situations.)	Whole class	10 min	YouTube Video Computer Projector
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Important Vocabulary: Phishing, spoofing, scams, cybercrime, identity theft, thief, thieves, theft

APPENDIX F

QR code for the phishing scams quiz



Results for the phishing scams quiz

Nomes	Pontuação	Phishing is one of the most common types of cyberattacks	Spear phishing are targeted attacks	In a 2015 study, 97% of people who clicked on a phishing email reported that they were not aware and vigilant	Phishing scams work all the time	Phishing emails are so common that you should always click on them	Seeing a padlock on a website means it is safe	Phishing is clicking on a link that you don't know	Part of the problem is people are not aware of the risks
Aluno 1	14 / 20	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	TRUE
Aluno 2	12 / 20	Not stated	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	Not stated
Aluno 3	14 / 20	TRUE	TRUE	FALSE	Not stated	FALSE	TRUE	FALSE	FALSE
Aluno 4	12 / 20	TRUE	TRUE	TRUE	TRUE	FALSE	TRUE	FALSE	TRUE
Aluno 5	14 / 20	TRUE	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	TRUE
Aluno 6	16 / 20	TRUE	TRUE	FALSE	TRUE	TRUE	TRUE	FALSE	FALSE
Aluno 7	14 / 20	TRUE	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	TRUE
Aluno 8	12 / 20	TRUE	TRUE	FALSE	TRUE	FALSE	Not stated	FALSE	TRUE
Aluno 9	10 / 20	TRUE	TRUE	TRUE	Not stated	TRUE	TRUE	FALSE	Not stated
Aluno 10	10 / 20	TRUE	TRUE	FALSE	Not stated	TRUE	Not stated	FALSE	TRUE
Aluno 11	18 / 20	TRUE	FALSE	FALSE	TRUE	Not stated	TRUE	FALSE	FALSE
Aluno 12	12 / 20	TRUE	TRUE	FALSE	FALSE	TRUE	TRUE	FALSE	TRUE
Aluno 13	18 / 20	TRUE	TRUE	FALSE	TRUE	Not stated	TRUE	FALSE	TRUE
Aluno 14	18 / 20	TRUE	TRUE	FALSE	TRUE	Not stated	TRUE	FALSE	TRUE
Aluno 15	16 / 20	TRUE	TRUE	FALSE	TRUE	Not stated	TRUE	FALSE	TRUE
Aluno 16	18 / 20	TRUE	TRUE	FALSE	TRUE	Not stated	TRUE	FALSE	FALSE
Aluno 17	20 / 20	TRUE	TRUE	FALSE	TRUE	Not stated	TRUE	FALSE	FALSE
Aluno 18	12 / 20	TRUE	TRUE	TRUE	TRUE	Not stated	TRUE	FALSE	TRUE
Aluno 19	8 / 20	TRUE	TRUE	TRUE	Not stated	FALSE	TRUE	TRUE	TRUE
Aluno 20	10 / 20	TRUE	TRUE	TRUE	FALSE	Not stated	Not stated	FALSE	FALSE
Aluno 21	8 / 20	TRUE	TRUE	TRUE	Not stated	FALSE	TRUE	TRUE	TRUE

APPENDIX G

Lesson Plan



AGRUPAMENTO DE ESCOLAS ROMEU CORREIA ES C/ 3º CICLO DE ROMEU CORREIA

10º Ano

Os Media e a comunicação global
Manual – Top Teen / Turma 10ºB1

Ano Letivo: 2021-2022

Prof. Estagiária Rita Rodrigues
24 de maio 2022

Learning objectives	Contents	Procedures	Interaction	Time	Materials and teaching aids
To identify different news format	Technology	Plan News in the different media sources – analysis. Creating a piece of news for the different types of media.	Student ↔ Class	10 min	Whiteboard
To learn about different news formats	News				
To learn about the different types of news	Media	Introduction In pairs, the students should ask each other the following questions and then share the answers with the teacher and the rest of the class.	Pair work	10 min	Whiteboard PowerPoint
To understand how the internet changed the concept of the news	Communication	1. Where do you usually read or watch the news? 2. How much time do you usually spend reading news articles and watching videos about news on TV or the Internet each week? Do you consider an important thing to do? 3. How much do you trust your news sources? What steps, if any, do you take to make sure you are getting a true and full picture of the events?			
To learn how to create a piece of news		Task The teacher will show a power point presentation with the news on different types of media and will ask the students to watch/read and analyze it in terms of format. -How is that piece of news written on each medium? -Why does it have that format? -How is the public relevant in terms of the format of the news? After students have analyzed the news in the different sources of “old media”, the teacher will ask them how the same news would be shared on social media platforms that use a short news format. The students should think for a minute and the teacher will show the last two slides of the ppt presentation which have images of news on social media platforms such as Instagram, Twitter and TikTok, and the teacher will ask questions and point out some relevant aspects of this format in order that the students can identify and understand the differences. The teacher will write the aspects of the short news format on the board.	Whole class	30 min	PowerPoint presentation
		Task 2 (to be carried-out next lesson) The next task is for students to create a piece of news about “President Zelensky’s visit to Portugal next weekend”. Each group will be assigned with a type of media in which the news should be delivered. When each group is done, they will present their news to the rest of the class.	6 Groups	40 min	Smartphones