# Master's Degree <br> in Language Sciences 

Final Thesis

# Smartphones and Foreign Language Learning: an Explanatory Study 

Supervisor<br>Ch. Prof. Mary Carmel Coonan

Assistant supervisor
Ch. Prof. Marcella Menegale

Graduand
Greta Moron
841707

Academic Year
2018/2019


#### Abstract

This research investigates how mobiles and in particular smartphones have influenced the language learning process by focussing attention on learner's habits, preferences, and opinions. This study puts its basis on European Union's policies, in favour of the use of technology and language learning, and previous studies on new digital language learning methods. In order to conduct this research, quantitative and qualitative data were collected through a questionnaire. On the whole, the study has confirmed previous studies' findings by discovering that young learners who have a high level of education already use digital tools such as smartphones to enhance their language skills and they do not despise the use of technology in institutional contexts. Moreover, participants would be either interested in using applications which allow them to improve all aspects of learning a language and they would include the possibility of having face-to-face calls and forum discussions on themes of their interest. Finally, this study could be interesting for educators who would like to add new sources to their teaching methods.


## Table of Contents

INTRODUCTION ..... 1
CHAPTER 1- LITERATURE REVIEW: THE IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGIES ON LANGUAGE LEARNER ..... 3
Introduction ..... 3
1.1 Policies of the European Union concerning Technologies and Language Learning ..... 4
1.2 Changes in Language Education Methods ..... 6
1.3 Changes in Language Education Technologies ..... 8
1.3.1 Computer Assisted Language Learning (CALL) ..... 8
1.3.2 Mobile-Assisted Language Learning (MALL) ..... 9
1.4 Smartphones ..... 11
1.5 Massive Open Online Courses (MOOCs) ..... 12
1.6 Learner Autonomy ..... 14
1.7 Previous Studies ..... 16
CHAPTER 2- METHODOLOGY ..... 20
Introduction ..... 20
2.1 Participants ..... 21
2.2 Data Collection Tools ..... 22
2.3 Design and Procedure ..... 29
CHAPTER 3- FINDINGS AND DISCUSSION ..... 31
Introduction ..... 31
3.1 Quantitative Data Analysis ..... 32
3.2 Qualitative Data Analysis ..... 44
3.3 Discussion ..... 54
CONCLUSIONS ..... 59

## References

Appendixes

## Introduction

The $20^{\text {th }}$ and $21^{\text {st }}$ centuries have brought with them one of the biggest revolutions since the Second Industrial Revolution. In these years the invention of technological devices has changed everybody's life to the point that nowadays the use of technologies of all types seems fundamental. The use of technology has reached many fields of utilisation, including education, forcing political institutions to make policies on it. The European Union, following the changing habits in everyday life, has taken in charge the objective of making its citizens able to access the use of technology and enhancing citizens' digital skills. Furthermore, digital tools have allowed people to be in contact in an instant way but also the problem of communication between people from different countries has arisen -especially in Europe where many languages are spoken. Along this line, the EU has felt the need to make its citizens not only able to use technologies but also to speak with others by knowing more than one community language. It is at this point that educating people has become crucial and some changes in educational methods have occurred. As far as language education is concerned, some educational methods, where the use of technology is involved, have been developed, for instance, Computer and Mobile Assisted Language Learning (CALL and MALL).

Mobile devices are the tools that influence recent years the most. Mobiles usually are economically accessible devices which can be easily brought anywhere and anytime with you. They perfectly fit the growing rhythms of today's life. Moreover, they seem to have attracted language learners' attention. Some mobile devices such as smartphones connect students to the World Wide Web and offer the possibility to use language applications anytime they want or have time to do so. Furthermore, the MALL educational method has also given learners the possibility of accessing free online courses provided by Universities on the Net such as MOOCs (Massive Open Online Courses). On the whole, Mobile devices have freed language learners from institutional obligations and have put the attention on the learners' ability to manage their educational and linguistic growth, becoming more and more autonomous in their learning process.

The combination of the use of mobile devices and learner autonomy has reached the interests of many scholars who have tested whether mobile technologies enhance students language skills (for instance Barrs, 2011; Cavus, Ibrahim, 2008) and what kind of mobiles learners use and how they use them (for example Steel, 2012; Muhammed, 2014).

It is along this line that this research has been conducted. This study has the aim to verify how language students spontaneously exploit their mobile technologies, focusing on smartphones - which are the most common mobiles nowadays - for educational purposes beyond institutional contexts and teachers' instructions. This research has been mainly centred on language learner's familiarity with mobiles and their habits.

Nevertheless, what is innovative about this research is the fact that it does not only investigate learners' habits and their relationship with the technological world but also it highlights learners' opinions about smartphones - or at least mobiles in general, as a means for enhancing their language proficiency. This study has tried to readdress the attention on learners as beneficiaries of the mobile learning process focussing more on their opinions than on tests as previous studies have done.

On the whole, this research has followed three main questions asking whether students use their smartphones for language learning, how they perceive using their smartphones in language learning and how they would like to use their smartphones to improve their proficiency in foreign languages.

Finally, the research is presented as follows: chapter 1 is a historical and methodological overview on the political, educational and instrumental changes that language education has faced; chapter 2 explains who the participants to this study are and how it was conducted, focusing on the instruments used to gather data; chapter 3 presents the data collected and puts them in relation to previous studies in this field.

## Chapter 1

## Literature Review: The Impact of Information and Communication

## Technologies on Language Learners

## Introduction

In this chapter, the spread of technology and its implications for language learning are presented. The chapter initially introduces the European Union's policies promoting the use of technology and language learning, briefly presenting the Digital Agenda for Europe and the Mother Tongue +2 objectives (section 1.1). The discussion then focuses on the changes that educational methods have had to face with the advent of new devices at the point that Computer-Assisted and Mobile-Assisted learning methods were established (sections 1.2 and 1.3). These learning methods led to the creation of new learning dimensions such as Massive Open Online Courses (section 1.5). On the whole, new methods in language education have led to the learning process being focussed more on the learner and their autonomy in selfregulating while learning a language than on the resources or the knowledge of the teacher (section 1.6). The chapter ends presenting some previous studies conducted by scholars on the use of mobile technologies as a means to accessing language resources and improving language learning (section 1.7).

### 1.1 Policies of the European Union concerning Technologies and Language Learning

In recent years, everybody has been able to witness how much technology has had a primary role in the development of modern society. Evidence of the spread of technology is the fact that all of us - from children to adults - use digital communication technologies such as computers or portable devices - for example, smartphones and tablets - daily. The advent of technology has deeply changed the World by making lots of processes quicker and easier (Calvo, Arbiol, Inglesias, 2014). The low cost of modern communication technologies has also favoured the spread of their use making them much more affordable and accessible than in the past years (Stockwell, Hubbard, 2013).

The use of technology has also become an important point for the European Union due to the fact that the digital economy has grown seven times the rate of other economies (European Commission Directorate-General for Communication Citizens Information, 2014) and that, today, it is at the basis of business and private lives. The EU published in 2010 the Digital Agenda for Europe with the purpose of making the use of technology accessible by every citizen in its territory and enhancing citizens' digital skills by the 2020 (European Commission Directorate-General for Communication Citizens Information, 2014).

As a result, the use of technology has become an essential part of everyday life and of the educational environment (Han, Keskin, 2016). Many studies have been carried out in order to explain and solve some issues related to the fact that technology has put high pressure on the way the learning process happens (Bansal, Joshi, 2014).

Recently, the use of technology has been linked to the need to learn foreign languages. Language learning is a focal point for the European Union, where 24 official languages and 60 other minority languages are spoken. As an objective fixed by the EU's multilingualism policy, every European citizen should be able to learn and speak their mother tongue and two other languages of the community in a life-long learning perspective. This "mother tongue +2 " goal was established in Barcelona in 2002 by the European Council and is still valid today (Saville, Gutierrez, 2016). There are some main reasons why EU supports this goal: for instance, the knowledge of more languages enables people to widen their work or study prospects;
secondly, people from different cultures can understand each other; thirdly, because of economic and legal reasons, and finally because the language industry is one of the fastest growing ones in the economical context (Eurobarometer survey, 2012). A Eurobarometer's survey on Europeans and their languages (2012) has particularly shown an increase in some areas of regular use of a foreign language (henceforth also FL) or more than one FL from 2005 to 2012 as shown in the graph (figure 1.1) which are: on the Internet ( $+10 \%$ ), while watching films, television or listening to the radio ( $+8 \%$ ) and while communicating with friends ( $+4 \%$ ).

SD4T. When do you regularly use (FIRST OTHER LANGUAGE)(SECOND OTHER LANGUAGE)? -TOTAL


Figure 1.1: Graphic on the use of foreign languages by European citizen between 2005 and 2012 provided by Eurobarometer's survey (2012).

Eurobarometer's research also stated that the population which uses the most languages in their lives are younger people with an age range which goes from 15 to about 40 years of age. Furthermore, $50 \%$ of young people from 15 to 24 use languages while on the Internet; $41 \%$ of people from 25 to 39 use languages while watching TV, films or listening to the radio; finally, young people, who have finished their full time education and are aged over 20 , have shown high rates of using languages especially if compared with those who have left school at 15 years of age or below. These percentages state that young and educated people have a bias for using technologies and languages nowadays. Moreover, what motivates Europeans to learn a FL is: the availability of good Internet courses, free lessons and better career prospects. Whereas, what demotivates EU's citizens from FL learning is: not having reasons to do so, the lack of time and the high costs of doing so (Eurobarometer survey, 2012). Because of these reasons, the use of mobile devices to increase language learning skills, has, in some way, fitted learners' needs. Especially because on smartphones people can find free language applications which can fit their educational needs and which can be used anywhere and anytime they want (Muhammed, 2014).

### 1.2 Changes in Language Education methods

According to Fattah (2015), language teaching has faced four stages so far which are: the face-to-face stage, the distance learning one, the blended learning stage and the mobile learning one. All these stages follow an increasing involvement of the use of technology. Here they are briefly described.

Firstly, face-to-face learning is what traditionally happens in classrooms where students listen to their teachers' lessons daily. However, this typology of learning environment has been criticized due to the fact that scholars have discovered that students attend classes and learn in a much more passive way, which is not that relevant for their knowledge, than while directly involved in the learning process. This means that face-to-face learning ignores all
the peculiarities and needs of the students and does not enhance major thinking skills such as critical thinking or problem-solving (Johnson et al., 2000).

Secondly, distance education is defined by Simonson (1999) as a formal way of teaching where the students are separated from one another and from the teacher too. The interaction between the members of the class group happens through telecommunication systems which allow the members to share the resources for their learning. Nowadays, distance learning is widespread and a lot of tools are provided, in such a way so as to learn a language, such as: websites, digital libraries, emails, social networks, and so on (Fattah, 2015).

Thirdly, blended learning is a way of learning which takes advantage from both face-toface and distance methods due to the fact that it involves different contexts (for instance, at school, at home, etc.) and technologies (for instance smartphones, notebooks etc.). It is a mixture of traditional classroom lessons and online experiences but it is also a reorganization of the concept of the two previous methods because it is fully based on the class's needs (Garrison, Kanuka, 2004).

Finally, mobile learning method is an educational method which has been proposed in recent years - especially during the twenty-first century with the advent of portable devices such as laptops, smartphones, tablets, etc. This method has had a huge success due to the fact that it allows learners to study anytime and anywhere or rather every time and everywhere perfectly fitting the rhythms of today's society (Fattah, 2015).

According to the Eurobarometer's survey (2012), in Europe learning a language at school through classroom lessons still remains the most widely used method. $68 \%$ of people in Europe have learnt a foreign language at school; $16 \%$ of Europeans by interacting with native speakers; 15\% with a teacher in small groups beyond scholar education; finally, 15\% by frequently going to foreign countries. This survey also states that for the majority of the Europeans to study a language at school is the most effective method so far.

Despite most people still preferring learning a language with classroom lessons, the use of technology appears as a social and cultural fact from which the language learning process cannot be detached. Therefore, scholars have introduced the concept of normalisation of the use of technology (Bax, 2003). This means that some kinds of technologies are becoming almost invisible in their use, thus truly integrated into the learning process. Information and Communication Technologies (ICTs) have taken the teaching and learning process a further
step where the need to adopt new teaching methods facilitated by the use of ICTs has become a focal point (Alfaki, Alharthy, 2014). This is because language acquisition demands a great amount of informal practice which can be provided by new technologies. In this way, new technologies allow students to be continuously connected with the FL studied and to selfregulate their studying by doing practice (Kukulska-Hulme, Shield, 2008). Furthermore, these technologies can help in developing advanced learners' intercultural competences making language learning more significant (Godwin-Jones, 2013).

### 1.3 Changes in Language Education Technologies

According to the changes which have affected language learning approaches, a technological support system to sustain those changes has been developed. The technological support system for the language learning process has mainly fronted two stages: the Computer Assisted stage which is called CALL and the Mobile Assisted stage which is called MALL. This section will introduce those stages and the ITCs involved within them. The MALL method will be discussed more because of its compatibility with the focus of this study.

### 1.3.1 Computer Assisted Language Learning (CALL)

According to Chaka (2009), CALL is a teaching and learning method which involves computers in such a way as to assist the learning process. The term CALL was established by TESOL Teaching English to Speakers of Other Languages - in 1983 when the method began to be widely used. This kind of technology has come to be helpful in language learning because the computer is a tool which can be used in and out of the class and can accomplish a lot of purposes such as presenting, reinforcing and testing knowledge (Gündüz, 2005). Computers allow students to work on their own bending their study to their needs (Vinther, 2011) and they are particularly important for the instant feedback they give.

The use of the computer as an assistance to language learning has changed since its first use in the 1950s. At that time, the computer was used principally to reproduce the traditional learning patterns according to the behaviourist approach. The language learning process was based on the creation of repetitive patterns by using audio media, drill and practice programs. The main reason why the computer was used was because it could give immediate feedback (Kern, Warschauer, 2000).

In the 1960s, with the advent of cognitivist and constructivist approaches to language learning, there was a shift in CALL. The computer started to be seen as a means to learning a language. In this way, all the interest was centred on the learners' ability to create their knowledge on their own (Chaka, 2009). According to Kern and Warschauer (2000), the computer seemed to be an instrument which allows students to learn in an artificial context. Moreover, the main activities done throughout this period are: communicative and contextual activities, language exploration activities, problem-solving and so on.

Eventually, with the emergence of the Internet, CALL passed another and the last stage (Gündüz, 2005). During the $20^{\text {th }}$ century and according to the sociocognitive approach, computers were mainly used as a vehicle for communication with other human beings. In this way, they enable learners to experience meaningful learning (Chaka, 2009). Nowadays, the use of computers in language learning is widespread and it represents a routine (Gündüz, 2005). However, the development of new and portable technologies has led to a new form of technological assistance: the Mobile-Assisted Language Learning.

### 1.3.2 Mobile-Assisted Language Learning (MALL)

As said before, technology has led to deep changes in teaching and learning languages. Moreover, in recent years, a new way of teaching and learning has emerged: mobile learning or M-learning. M-learning consists in providing and acquiring knowledge through portable and often handheld devices (Bansal, Joshi, 2014). These devices include smartphones, laptops and notebooks, tablets, e-book readers and so on. Along this line, the Mobile-Assisted Language Learning (MALL) has developed. On the whole, MALL refers to a language learning process which exploits personal and mobile devices. The use of personal devices seems to be its most powerful aspect due to its huge impact on the learners. Indeed, nowadays there is a
smartphone in everybody's pocket due to its dimensions, multifunctionality and low cost (Stockwell, Hubbard, 2013).

Nevertheless, Vavoula and Sharples (2002) argue that the concept of mobile is not only related to devices but also to the learning process. Mobile-learning should be considered in terms of space (because learners are on the move), of time (in a lifelong perspective), and objectives. This means that owning a mobile makes learners able to learn anytime and anywhere or, according to Berger (2001), everywhere and every time due to the versatility of these devices.

At this point, it is useful and important to recognize what the benefits and limitations of mobile devices and MALL are. Some of the benefits of the use of mobiles in language learning have already been mentioned; however, among them, it is possible to list: portability - thus the possibility to carry portable devices over; social interactivity - or the possibility to interact with other people; context sensitivity - the capability to collect data about the place and time; connectivity - the prospect to connect multiple devices; and finally, individuality - or the creation of a personalized learning path which allows the students to be free to organize and regulate their learning process (Klopfer et al., 2002; Berger, 2001). On the other hand, scholars have detected some issues principally related to the physical aspects of the device use. According to Zayed (2016), the disadvantages of using mobile devices come from their small-size screens, the duration of the battery, the limited storage capacity and, finally, from the fact that mobile devices were not designed for educational purposes. Moreover, according to Bouhnik and Deshen (2014), the use of these devices could have a negative impact on academic writing due to the fact that learners tend to send short instant messages through their mobiles.

However, in recent years, MALL has substituted CALL especially because of the use of smartphones which have been designed to include all computer capabilities and functions (Han, Keskin, 2016).

### 1.4 Smartphones

The smartphone is one of the most widespread mobile devices in the world and it seems indispensable in everybody's and everyday life. According to Haug et al. (2015) in Switzerland, as in many other Western countries, $98 \%$ of adolescents have a mobile phone and $97 \%$ of them were smartphones. Moreover, according to a Eurostat survey, in the EU more than 80\% of people who surfed the Net in 2016 mainly used their smartphones ( $79 \%$ of internet users). The percentage reaches higher rates (94\%) if young people from 16 to 25 years of age are considered as shown in figure 1.2. The table shows that the positions following smartphones are occupied by Laptops or Notebooks, Desktop Computers and Tablets, reinforcing the idea that mobile devices are part of today's way of life.

Main devices used in the EU to surf the internet, by age groups, 2016
(as $\%$ of internet users over the last three months)


Figure 1.2: Devices used to surf the Net by EU's citizens by Eurostat

Possible reasons for the diffusion of smartphones among young people are provided by Campbell (2005) who stated that smartphones represent a fashion item which can be customised and which can appease personal and individual needs. Moreover, smartphones
lead to a status in which the self is socially connected with others and make young people feel independent (Campbell, 2005). Other researchers also stated that smartphones accomplish the same tasks as a personal computer does nowadays (Bansal, Joshi, 2014) and since 2007, with the advent of Apple, Android and Windows devices, all the issues related to learning through a smartphone have been solved by the latest typologies of smartphones which have larger touch screens, a higher resolution, powerful operating systems, applications and so on (Godwin-Jones, 2011; Barrs, 2011).

Furthermore, some studies conducted on students who learn a language through a smartphone have highlighted the fact that learners feel very comfortable using a personal tool because the device can act as an emotional barrier used to avoid, for instance, grammar mistakes (Han, Keskin, 2016) and because, on their devices, learners can use specificapplications according to their needs (Muhammed, 2014) which can improve students' time management skills while accomplishing a task (Motiwalla, 2007). Nevertheless, as Motiwalla (2007) pointed out smartphones cannot totally substitute classrooms or other digital approaches. It has been argued that smartphones are important because they lead to SelfAccess Language Learning (SALL). In this approach, the focus shifts from the dependence on the teacher to the learners' autonomy in accessing materials and resources for managing their own learning (Barrs, 2011). The SALL approach is focused fuller on in learner autonomy section (1.6).

### 1.5 Massive Open Online Courses (MOOCs)

One of the main reasons for using smartphones in language learning is the large amount of applications available to users. However, these apps do not offer a complete guidance to effective and meaningful learning, as confirmed by Eurobarometer's survey (2012). In this way, Massive Open Online Courses were developed to give learners a solid and relevant knowledge delivered via the Internet.

2012 has been identified as the year of the MOOCs due to the exponential growth of this phenomenon, directly proportional to the digitalization of modern society (Cooperman, 2015). According to Naert (2015), MOOCs are not revolutionary educational tools but an amplification of already existent online platforms and a repackaging of traditional online-
courses. They mix new educational technologies and distance learning method, not pretending to provide new pedagogical approaches (Guàrdia et al., 2013).

Whether Modular Object Oriented Dynamic Learning Environments (MOODLEs) and MOOCs are compared, it is possible to state that MOODLEs are platforms where teachers can provide a customised learning context accessible by students throughout all their digital devices in a blended and learner-centered perspective (moodle.org) and that MOOCs are software which take these characteristics to a massive level. In MOOCs, a large amount of students is involved in the project and the distance dimension is preferred to the blended one. Interaction between teacher and students is mediated only by the Internet, and the courses are usually fee-free (Naert, 2015). As shown in the following table (Figure 1.3), MOOCs can be identified as an extreme meeting of the maximum development of educational technology and the digitalisation of traditional courses.


Figure 1.3: Taken from Guàrdia et al. (2013)

According to Guàrdia et al. (2013) and Naert (2015), there are two main typologies of MOOCs: xMOOC and $c M O O C$. In xMOOC - where ' $x$ ' stands for 'extra' as reinforcement of 'massive'teachers have still a central role in the educational process because they provide video-taped classes, extra sources or activities and more or less automated tests. This kind of MOOC exploits the Behaviourist approach (Guàrdia et al., 2013). In cMOOC - where the ' $c$ ' stands for
'connectivist' - the Conncetivist approach is involved in the process of learning a FL (Guàrdia et al., 2013). In cMOOCs, there is no knowledge transferred from the teacher to the learners and there is not a single environment for the learning process (Kop, 2011). The focus is on the learner and so as on the onus for their learning. These MOOCs are less structured and they tend to induce the learners to self-regulation, self-paced learning, self-assessment, etc.

Nowadays, MOOCs are spread in Europe too where the European Council has launched many initiatives to promote this kind of learning (Naert, 2015) such as supporting OpenupED website (openuped.eu). According to Valkenburg et al. (2015), MOOCs experiences can be very successful in Europe because of linguistic variety and educational policies of this territory, where regional MOOCs could be accessed from other European region addressing learning on a global perspective. However, it seems that this type of education creates some concerns among scholars for the need of high skills required to use MOOCs connected to the high functionality of the devices involved (Kop, 2011), the lack of objective control of the learning process (Cooperman, 2015), and finally, the lack of certification of MOOCs at a legal level and of a solid research ground (Valkenburg et al., 2015).

### 1.6 Learner Autonomy

As seen in section 1.4 and 1.5, new technologies and new forms of online learning have pushed the centre of the language process onto the learner, shifting from a resources and teacher-centered approach. In this way, the language learning process puts its basis on the learner's ability to autonomously monitor their learning.

It is important to establish what learner autonomy is and how it has been discussed by scholars. Autonomy in language learning has become a focal theme in language education since the end of II World War when changes in society encountered the need to learn a foreign language to travel and work (Gremmo, Riley, 1995).

In the 1980s learner autonomy was mainly connected with adult education and selfaccess learning systems. At that time, learner autonomy consisted in the learners doing educational activities on their own (Little, 2007). According to Holec (1981), who in 1979 attracted the interest of the Council of Europe on this important theme, learner autonomy is when one takes charge for one's learning process through formal learning. In such a way so as to fulfil this purpose, the learning must be significant in the content (what is learnt) and in the context (how and when the learning process happens) (Ramamuruthy, Rao, 2015).

In the 1990s, there was a shift in the debate on autonomy. It was no more a matter of learners working on their own but learners working for themselves (Little, 2007). According to this new view on autonomy, learners do not need to study in isolation but be responsible for an effective learning process (Ramamuruthy, Rao, 2015) in order to increase self-awareness (Little, 2007). Little (2007) has recently defined learner autonomy as acting freely in the language learning process and in interaction with the teacher, who has the task of giving the learners the right instruments to control the process and the content of their learning process.

According to Gremmo and Riley (1995), technology has contributed to the development of learner autonomy because, as previously seen, it can help in the management of the work done and in self-assessment of the same work. Vigilance is required in the equation of autonomy. It is not possible to reproduce a pattern-drill exercise on a screen to make the learning process effective. Students need to have choice in content and context of the learning process, as said above. Furthermore, according to Kivunja (2015), $21^{\text {st }}$ Century has required students to develop four basic skills to have success in learning and become productive citizens. These four skills are called 4Cs and they are: creativity, communication critical thinking and collaboration. 4Cs skills are consistent with Bruner's active learning and what he considered as the real aim of education (Bruner, 1960) because they are instruments that give learners the keys to new knowledge (Kivunja, 2015). Ramamuruthy and Rao, in 2015, have highlighted that the 4Cs skills are the result of both autonomous learning and mobile learning. According to this theory and to the findings of their study, Ramamuruthy and Rao (2015) developed the 4Cs Model of Autonomous Learning through Smartphones, which is represented in figure 1.4.


Figure 1.4: 4Cs Model of Autonomous Learning through Smartphones (Ramamuruthy, Rao, 2015)

In the late 1960s and 1970s, to overcome the issue caused by the lack of efficient digital activities for language learners that can be done autonomously, Self-Access Systems were developed originating from behaviourist language laboratories which exploited patterndrill as a basic exercise for language learning. Self-access Systems and Self-Access Language Learning (SALL) are concepts that imply that the students choose different resources from a platform, independently of where it is possible to access, on their own. Materials and resources in Self-Access Systems are organized by teachers so as to make them easier to access (Diaz, 2010). MOODLEs and xMOOCs are a prime example of platforms leading to SALL.

### 1.7 Previous Studies

In this section, some of the studies conducted by scholars on the use of mobiles, and in particular smartphones, as a means to accessing resources and improve language learning are presented. These studies were taken into consideration for the purpose of this thesis to
explore whether students use their smartphones for language learning and what their opinion is about using this kind of technology.

In 2008, Cavus and Ibrahim conducted a study where the aim was to investigate what the use of mobile technologies in education was, with a particular interest in the potential of using SMS as a means to learning a language. The study included 45 undergraduate students whose knowledge was measured before and after the experiment. The outcomes were that students were pleased to use their mobiles to learn new vocabulary. The researchers have established that the use of technology can contribute to promoting students' success in language learning.

In 2011, Barrs managed a research study to determine the extent of smartphones ownership among students and whether students used their smartphones for language learning. The investigation included 80 university students who were tested through a questionnaire. The findings showed that in 2010 only $25 \%$ of students owned a smartphone while the other $75 \%$ had a mobile phone meaning that smartphone technology was not so widespread. 15 students of the $25 \%$ owning a smartphone declared they used their mobile for language learning purposes. In particular, they used: the camera to photograph teacher's notes on the work-board; the recorder to practice whether they have a presentation test; the search by voice to check their pronunciation; flashcard apps and news apps like BBC or CNN. Barrs showed that students already know how to use their smartphone to enhance their proficiency without any particular training before.

A more recent study conducted by Muhammed (2014) had as its objective to find out the extent of the effectiveness of using mobiles in language learning. This study increased the knowledge of the ones above by giving much more concrete results. 20 students of English as a foreign language from a university in Iraq were tested through focus group discussions. According to the data, the researcher determined that the most used type of mobile was the smartphone which students preferred because English is easily accessible through the majority of language smartphone apps and because smartphones are portable and the learning process can happen anytime and anywhere. The study also showed that students preferred to use apps to improve their vocabulary and grammar and that mobile use actually had a great impact on the learning process.

However, Ramamuruthy and Rao (2015) questioned whether the learning process really happens while students are so engaged with their smartphones. For this purpose, they conducted their research on 70 smartphone users from 18 to 26 years of age through a questionnaire which investigated learning skills, learning satisfaction, students' perceptions about teachers' roles and autonomous learning. The students involved in the research declared that smartphone use increased their critical and creative thinking, their communication and collaboration skills. Students were satisfied in learning through smartphones but they continued to believe that only by means of traditional classroom could they achieve their learning goals.

Moreover, a study conducted by Steel (2012) questioned which mobile apps are used by students and what the learning enhancement is that they perceive. The study was launched via an online survey, sent to 590 language students. The results show that students generally use free or low cost applications like dictionaries, text-books, specific exercises, writing practice devices and so on. They use their smartphones because they expect the apps to improve over time and be able therefore to upgrade and offer more practice in the future and because apps are easy to use and accessible. The main benefits of using smartphone apps were for vocabulary, grammar, reading and writing.

The five studies presented above all show how students enthusiastically welcomed the use of technologies in language learning especially if these technologies are private, comfortable and constantly accessible. Before anyone could address the tested students to the use of mobiles for educational purpose, they had already foreseen that these technologies could help in managing the learning process in an easy and low cost way. How shown by the studies above, scholars displayed an increasing attention to smartphones use in language learning, to the point that Leis et al. (2015) have created the SPALL acronym which stands for Smartphone Assisted Language Learning. Studies about SPALL, frequently involve the concept of autonomous learning (see Howlett, Waemusa, 2019; Leis et al., 2015, etc.).

In their research, Leis et al. (2015) have investigated what the effects of using smartphones during classrooms are on the efforts made by students, while studying a foreign language. The study involved 140 Japanese university students aged from 18 to 21 who were divided into two groups where one of them was a control group. Students had to exercise for 15 weeks through videoing, for instance recording role-play activities, pronunciation apps, and tests. At the end of the course, a questionnaire was spread among participants to collect their
opinions about using smartphones in class. On the whole, the questionnaire revealed that student principally used their smartphones to review what they have been learning in class and that, thanks to the use of these mobiles in class, they felt more autonomous in private study.

In 2018, Nurhaeni and Purnawarman conducted a research to explore whether or not learning through a smartphone can influence the way students autonomously study. The research was conducted through the use of a questionnaire and interviews which involved 65 English students from a university in Bandung. The data collected showed that students tended to use their smartphones for searching for information and having communication for general purposes. As far as learning English was concerned, students used their smartphones to access language applications and language materials.

In a more recent study, Howlett and Waemusa (2019), examined high-school students' opinions about mobiles as tools to enhance language learning and whether the same students felt prepared for autonomous learning with their devices. 227 students from 8 high schools in Thailand were involved in the study which was conducted through the use of a questionnaire. The data gathered displayed that in 8 schools the percentage of students who did not have a smartphone was about $12 \%$. Furthermore, the research established that students usually brought their smartphones at school even if they were not allowed to do so and that they used them because smartphones are faster than books or dictionaries, they can help while checking for pronunciation and while learning new words.

Along this line, more specific studies were conducted. For instance, Bouhnik and Deshen in 2014, Bansal and Joshi in 2014, Fattah in 2015, etc. focussed their attention on the use of WhatsApp as a tool to enhance interaction between students and teacher where the conversation was in a foreign language. Moreover, Alafaki and Alharthy (2014) investigated whether the use of social networks can improve language learning.

The quantity of studies conducted in this field demonstrates what the potential and power of using new technologies, and in particular familiar technologies such as smartphones, is. Scholars have shown a great interest in giving support to the integration of mobile devices, which students have probably already used, in language learning.

## CHAPTER 2

## Methodology

## Introduction

In this chapter, the core structure of the study is presented. The chapter is divided into three sections which respectively are: participants (section 2.1), materials (section 2.2), and design and procedure (section 2.3). The first section (2.1), concerning participants, presents the people involved in this research, considering them from a demographic point of view. The participants are principally young female subjects who have attained high levels of education and are still studying. The second section (2.2), which concerns the materials involved to conduct the study, describes in detail how quantitative and qualitative data were gathered. In particular, the questions of the questionnaire and those of the final and optional interview are analysed. The final section (2.3) discusses the design of the study and how it proceeded. The research has been classified, due to its nature and objectives, as an explanatory study which uses mixed-method research. After a planning phase to establish the research questions, a questionnaire was created so as to gather a large amount of data in a quick way. This questionnaire was transmitted via a social network and it was accessible for a month. After a month, the participants who left their consensus and an e-mail address were interviewed with three more questions based on the questionnaire results. Finally, all the quantitative data collected through the questionnaire were coded and discussed. This process was longer for the
qualitative data which required an extra step into their codification by transforming them into quantitative data too.

### 2.1 Participants

This explanatory study was conducted online and it was open to all students, and in particular university students, of foreign languages. The questionnaire used to collect the data was completed by 61 volunteers, who found the questionnaire on Facebook. $88.52 \%$ of the participants were female and $11.48 \%$ were male participants.

The age range of the participants went from 14 to 49 years of age. The data about the age of the participants can be divided into four main groups. The group from 20 to 24 years of age gave the greatest number of responses (31) reaching $50.8 \%$ of the participants. The second major group included participants from 25 to 30 years of age, with 23 answers the group reached $37.7 \%$ of the participants. Finally, the last two minor categories included people from 31 to 49 years of age ( 5 people), who were $8.2 \%$ of the participants; and from 14 to 19 years of age who gave 2 responses and reached $3.3 \%$ of the participants.

Particularly interesting are data on the educational level of the participants involved in this explanatory study. The outcomes show that all the participants have a high level of education. The lower level of instruction of the participants is upper secondary education meaning that $33 \%$ of the participants have at least finished high school. As regards the tertiary level of education, $44 \%$ of participants have already obtained a Bachelor's degree and $23 \%$ of them have reached the Master's degree.

While on the one hand, the percentages for the participants' educational attainment showed three main categories of participants, on the other hand, when they were asked if they were attending educational courses, the answers were much more discordant. Two were the principal groups: the first one included 30 people (49.2\%) attending their Master's degree
course; the second one involved 21 people (34.4\%) attending a Bachelor's degree course. One person declared to attend high school (1.6\%). Finally, 14.8\% of the participants gave different answers, for instance applying for work, studying by his or her own, etc., because they were not attending any educational course.

On the whole, the participants of this study were well educated young people who were still attending educational courses or had a strong interest in learning foreign languages.
$\square$ High school $\quad$ Bachelor's degree $\square$ Master's degree $\square$ other


Figure 2.1 Participant's Educational Attainment

### 2.2 Data Collection Tools

As said above, 61 participants participated in this study through an online questionnaire open to a possible written or oral distance interview. The questionnaire was created thanks to the Google application Forms which was developed for the specific purpose of creating online questionnaires. After its creation, the questionnaire was sent to students via one of the most
used social network: Facebook. Indeed, the link to the questionnaire was published and made accessible to the respondents, for a month, from private Facebook's profiles and from three university language students Facebook's group pages from the university Ca' Foscari of Venice and Università degli Studi di Padova.

The questionnaire was titled Questionnaire on the Use of Smartphones in Foreign Language Learning and it displayed an initial introduction for the reader where the main aim of the research and of the questionnaire was explained. The aim was to collect mainly quantitative data in such a way as to investigate whether students spontaneously use their smartphones to enhance their foreign language skills and how they use their smartphones for language learning.

The questionnaire comprehended 24 questions of different types and purposes divided into three sections: the first section of general interests, the second section based on the use of smartphones related to foreign languages, the third and last section asked participants how they felt about using their smartphones in foreign language learning. The third section was planned to collect students' points of view.

The first section of the questionnaire was based on the use of factual questions (where only one answer is valid) with the purpose of investigating the demographic characteristics and the level of education of the participants to this study. The participants were asked with singleanswer questions about their gender, age, educational attainment and the courses they were attending that moment. The questions about age, educational attainment and the courses attended at that moment gave three fixed answers which were: 14-19, 20-25, 25-30 for the question about age; and High school, Bachelor's degree, Master's degree for the questions on educational tendency and the fourth extra option of other to facilitate the respondents in adding something which was not included in fixed answers.

# What course are you attending? * 

High schoolBachelor's degreeMaster's degreeAltro.Figure 2.2 Example from the questionnaire of a single-answer question with other option

The aim of the questions that follow was to explore the behaviour of the participants towards smartphone use. Therefore, behavioural questions were used to collect data on foreign language students' habits. Questions 5 and 6 were Likert scale questions which asked participants how many messages they sent daily and how many audio or video media they used daily, on a scale of four possible answers from few to a lot. Question 7 asked how much respondents used social networks daily. The structure of the question was a Likert scale too, with a scale which went from a little to much and which allowed four possible answers. Question 8 was a short answer question which aimed to find out the top three list of names of portable devices used to study by participants. Question 9 was still a Likert scale question which asked how much respondents used their smartphones for educational purpose on a scale of four points from never to daily.

## How much do you use your smartphone for educational purpose? *

|  | 1 | 2 | 3 | 4 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| never | $\bigcirc$ |  |  |  |  |

Finally, question 10 was an open-answer question which asked participants to provide three main moments in which they use ICTs to access contents in a foreign language.

Section number two of the questionnaire, whose aim was to examine how much students used their smartphones to improve their knowledge of a foreign language, was composed of five questions - from question 11 to question 15. Question 11 was a Likert scale which went from never to often on a scale of four points. The question asked whether respondents used their smartphones to communicate in a foreign language. Question 12 was still a Likert scale, with the same parameter as question 11, which asked respondents if they used their smartphones to do online exercises on the FL they were studying. Question 13 was a dichotomous question with Yes/No answer which investigated whether participants used mobile applications to study a FL. This question was connected with the question that follows (14) which was an openended question where the participants who answered $Y e s$ at the previous question were asked to explain which app/apps they used and why they chose it/them.

Do you use mobile applications to study a FL? (Babbel, HiNative, Duolinguo, Dictionaries etc.) *
No

## If your answer is yes, which application or applications do you use? Why?

La tua risposta

Figure 2.4 Example of connected questions from the questionnaire

Question number 15 and 16 were two dichotomous questions with Yes/No answers which asked participants whether they knew what MOOCs are and if they had ever joined a MOOC. Finally, the last question (17) of this section was another open-ended question which asked to make a top three list of the ways participants used their smartphone for language learning.

Section 3 of the questionnaire investigates how participants felt about using their smartphone in FL learning, giving importance to their opinion about the use of this technology for educational purposes. The section was composed of 7 questions which went from number 18 to 24 . Questions 18 and 19 were two connected questions because the second one asked an explanation to the answer given in question 18 through an open-ended answer. In particular, question 18 was a dichotomous question with Yes/No answers which asked if the participants found using the smartphone while studying helpful. Questions number 20 and 21 were two connected questions too, where the second one asked an explanation of the first answer. Question 20 asked whether the participant prefers online lessons or learning in traditional classrooms. This was a single-answer question with three fixed answers which were online, traditional classrooms and both.

Do you prefer learning a FL online or in traditional classrooms? *onlinetraditional classrooms

Why? *

Testo risposta lunga

Figure 2.5 Example from the questionnaire of a question which requires an explanation

Question 22 was an open-ended question which asked participants how they would feel about instant messaging with their peers in a FL and why. The last two questions were connected by their theme. In particular, question 22 was a single-answer question which asked the respondents what they would like to do to enhance their skills if they had the possibility to create a language application. This question had seven possible answers which were: sending audio media to improve my speaking skills, watching videos to improve my listening skills, writing short texts to have total control of my grammar and my production, writing a circularstory where sharing my writings with my peers and creating something together, creating
flashcards, all of the previous answers, none of the previous answers. Question 23 was an open-ended question which asked participants to propose other possible activities they would like to do with their smartphones and why they chose them. The questionnaire had a final and extra question (24) which was not mandatory and asked the participants who were interested in deepening their answers to leave their e-mails to be contacted for a structured interview.

If you had the possibility to work with an apps developer to create a FL app, what are the main things you would like to do with this app so as to enhance language skills?Sending audio medias to improve my speaking skillsWatching videos to improve my listening skillsWriting short texts to have total control of my grammar and my productionWriting a circular story where sharing my thoughts with my peers and creating something togetherCreating flashcardsAll of themNone of them

Please propose other activities you would like to do or you do with your smartphone in such a way as to increase your proficiency in FL learning and explain why you chose them *

La tua risposta

Figure 2.6 Questions 22 and 23 from the questionnaire

As just said, the participants who left their contacts had been provided with three more questions based on the results of the questionnaires and data taken from literature in this field. These questions were sent via e-mail and were the following:

- Question 1: According to European statistics, the use of technology is spread while learning a language but traditional classrooms remain the most effective method in
learning a language. The questionnaire partially confirmed EU's outcomes (65,6\% of the participants prefer blended method, $27,9 \%$ prefer traditional courses and only 6,6\% prefer online courses) showing a great interest in digital education. Why do you think traditional classes still have such an important role to play in today's education?
- Question 2: According to the answers of the questionnaire and the research of scholars, smartphones are used by students for language learning for a lot of reasons. Smartphones are easy-to-use, cheap and versatile devices which can be used everywhere and every time you want with constant access to the Net. Some researchers have also stated that smartphones contribute to developing autonomy in language learning. Do you believe that being the one who chooses on his/her own learning enhancement, makes the learning much more effective and interesting? What kind of assistance would you need to be independent and self-aware of your linguistic growth?
- Question 3: MOOCs are free courses given online on specific platforms which can host a massive quantity of learners from all over the world. They can be structured by a teacher or learners can be free to construct their learning process. Even if MOOCs are widespread in Europe and supported by the EU's Council, it seemed from the questionnaire that few people knew about them or followed them. According to scholars, their failure could be connected to the lack of control of the learning process and a lack of legal certification (e.g. college credit) of these courses. Do you believe MOOCs are useful learning tools? Why are they quite unknown to students? Do you believe MOOCs are promoted by the government of your Country?

All of the extra questions could be answered in written or oral mode in English or in Italian.

### 2.3 Design and Procedure

In this section the fundamental structure of the research is described and how the study proceeded. This study can be defined as a sort of explanatory research (Hatch, Lazaraton, 1991) which uses a questionnaire as its main quantitative collecting data method. This typology of research was chosen due to the fact that little research was previously done on the topic selected for this study which is the integration of new technologies such as smartphones in language learning process. The research aim was to investigate and increase knowledge about students' habits. In particular, how students spontaneously used their smartphone for language learning, what their opinion about using smartphones for this purpose was and what they would like to do with their smartphone in such a way so as to improve their language skills. The questionnaire was selected from the research methods for its capability of collecting a large amount of data in a quick way. It was also quick to codify the answers of a questionnaire rather than those of an interview. The questionnaire was not the only method used to collect data because distance structured interviews were also used, as shown in section 2.2. The use of questionnaires and interviews shows the mixed-nature of methodology of this research.

In conducting this study, these procedures were followed. Firstly, studies conducted by scholars were analysed to investigate which phenomena affects language acquisition nowadays. Then, the attention was focussed on the use of mobile devices such as smartphones in FL learning process. After exploring other studies, the research questions were established. Moreover, a questionnaire was planned and created. The questions of the interview which followed the questionnaire were created after the collection of the answers of the questionnaire in such a way as to deepen students' answers where they were not sufficiently clear enough. After the planning phase, the questionnaire was published and made accessible to students via a social network. The questionnaire, as said above, was made accessible for a month. The last question of the questionnaire asked the students, who were interested in, to leave their email contacts to be interviewed. In the last part, the study required the analysis of the data collected. For this purpose, a distinction was made between
closed-ended questions and open-ended questions owing to the fact that the first kind of questions provided quantitative data whereas the second ones provided qualitative data.

As regards closed-ended questions, they were coded through numbers. This was also true for those questions which required a Yes/No answer where Yes was coded as 1 and No was coded as 2. Questions coded in this way can include single choice questions, such as questions on the demographic characteristics and the level of education of the participants, and Likert scales. All the numerical values recorded were analysed according to descriptive statistics methodology. In particular, data were analysed by using percentages, measures of central tendency such as: mode (which indicates the most frequent score), median (which is the fiftieth percentile of the scores), and mean (which measure the average of the scores). Then, the dispersion of those rates was analysed through standard deviation formula as measure of variability which indicates the average distance of the scores from the mean (Dörnyei, 2007).

When it came to the analysis of the open-ended questions which could have shorter or longer answers, the method chosen to do it and put these data on the same level as quantitative data, was data reduction and codification. In this way, qualitative data were converted into numerical and quantitative data in such a way as to analyse them statistically. Transforming qualitative data into quantitative ones was a process which required accuracy. It was conducted through a precise content analysis and codification into labels and numbers of the answers given by participants (Tashakkori, Teddlie, 1998).

## CHAPTER 3

## Findings and Discussion

## Introduction

In this chapter, all the data gathered through the use of the questionnaire and the distance interviews shown and explained in chapter 2, are discussed. For the analysis of the data, they were divided into two categories as anticipated above. Section 3.1 is dedicated to the analysis of quantitative data which were collected principally thanks to the questionnaire. Section 3.2 deals with qualitative data which were collected thanks both to the questionnaire and interviews. However, the number of answers gathered through the interviews was inadequate to be generalised. The analysis of quantitative and qualitative data is supplied with graphs or tables. Finally, section 3.3 compares the finding of this study to previous studies and gives an idea of the tendency to using smartphones in FL learning. Moreover, a brief opinion about the methodology of this study is given.

### 3.1 Quantitative Data Analysis

As introduced in chapter 2 , quantitative data gathered through the use of the questionnaire, which is described in the same chapter, were analysed through descriptive statistic formulas such as percentages, measures of central tendency and standard deviation as value of dispersion of the rates. On the whole, the most reliable analysis was given by percentages because the majority of the questions provided fixed answers where the values for mode and median are often the same. As a consequence, standard deviation values did not reveal a high dispersion in rates. This phenomenon was particularly evident when it came to analysing demographic questions or Yes/no answer questions.

Question number one was a demographic question and asked the gender of the participants. As said above, the answers were coded. The actual codification was 1 which stood for Female and 2 which stood for Male. The answers given by participants were 54 for Female (1) and 7 for Male (2). This meant that $88,52 \%$ of the people involved in this study were female while $11,48 \%$ were male as shown in the graph below. For this question, the measures of central tendency and standard deviation do not represent significant values.

## Gender of the Participants


-Female-1 םMale-2

The second question concerned the age of the participants. The question was a single-answer question with provided answers. The answers were coded as follow: 1 for people from 14 to 19 years of age; 2 stood for people aged from 20 to 24 , number 3 for people aged from 25 to 30 and number 4 for people whose age number was not included. The percentages of the responses to this questions were: $3 \%$ of the participants (two of them), were aged from 14 to 19 years old (y/o); the majority of the respondents were aged from 20 to 24 years old reaching a percentage of $51 \%$ with 31 answers; people aged from 25 to 30 years old who answered the questionnaire were $38 \%$ of the sample ( 23 people); finally $8 \%$ of the respondents were not comprehended in the given labels (5 people).

## Age of the participants



As regards the measures of central tendency, it was possible to predict and confirm that the mode and median correspond to answer number 2 which stood for people aged from 20 to 24 years of age. Besides, the mean reached a value of 2,5 meaning that the age of the participants found its main values in answer 2 but answer 3 received a lot of rates too. As shown by the graph above, it was possible to identify the participants as young people aged from 20 to 30 years of age.

## Question 2 Trend



Question 3 regarded the educational attainment of the participants. The question format was still a single-answer question with provided answers which were: high school coded as 1, bachelor's degree coded as 2, master's degree coded as 3, and other coded as 4 . Answer 1 received 20 rates consistent with $33 \%$; answer 2 received 27 responses, $44 \%$ of the answers given by participants; 13 rates were given for answer number 3 which is $23 \%$ of the answers, while none of the participants chose the other option.

Question 3 Percentages


As suggested by the participants' choices, the measures of central tendency were about 2 . The mode and median were 2 , while the mean was 1,90 . Nevertheless, the answers given showed some dispersion from the mean which reached the value of 0,74 .

Question 4 was created in such a way so as to explore whether the participants to the research were continuing their studies. The answers in their forms and codifications were
identical to question 2. The answers to this questions were: 1 (2\%) for high school, 21 (34\%) for bachelor's degree, 30 answers (49\%) for master's degree, and 9 (15\%) for other. According to the percentages, the value for the measures of the mode and median was 3 , meaning that the most given answer and the answer which split the group into two smaller groups was 3 . The value for the mean was quite $3(2,7)$. In this case too, the standard deviation of those answers was about 0,7 showing a dispersion of a little more than a half point from the mean.

The questions number five, six, seven and nine were created in such a way so as to investigate the habits of the respondents to the questionnaire. These questions followed the Likert scale pattern where participants could choose a single number on a scale which went from 1 to 4 where number 1 stood for few, a little or never and 4 stood for a lot, much or daily. Question 5 asked how many messages participants sent daily. Besides, question 6 asked how many audio or video media they took or watched/listened to. Moreover, question 7 asked how much participants used social media daily. Finally, question 9 asked how much they used their smartphones for educational purpose. All the answers to these questions were analysed together due to the fact that they highlighted a cohesiveness in participants' habits. On the account of this homogeneity, the measures of central tendency and the standard deviation for these answers were the same to some extent. On the whole, the value of the mode for questions 6, 7, and 9 was 3 , while the mode for question five was 4 showing a high use of technology and its relative use especially when it came to sending messages like instant ones. As regards the median value, it was the same for all the four questions and it reached a value of 3 meaning that a half of the participants gave a rate of 3 or 4 . The mean values were around three too. The lowest mean was 2,86 for question 9 and the highest value was 3,27 for question 5. The rates for standard deviation went from 0,78 for question 6 to 0,83 for question 9. This means that comprehensively the rates given by participants had a significant dispersion which reached about a point.

Analysis of Questions 5, 6, 7, and 9

| 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 3 |  |  |  |  |
| 2 |  |  |  |  |
| 2 |  |  |  |  |
| 1 |  |  |  |  |
| 0 |  |  |  |  |
|  | How many messages do you send daily? (texts, instant messages, etc.) scale: 1 (few) - 4 (a lot) | How many audio or video medias do you watch/listen to or take daily? Scale: 1 (few) 4 (a lot) | How much do you use social networks daily? <br> (Facebook, Instagram, Twitter, etc.) Scale: 1 (a little) - 4 (too much) | How much do you use your smartphone for educational purpose? Scale: 1 (never) - 4 (daily) |
| - MODE | 4 | 3 | 3 | 3 |
| $\square$ MEDIAN | 3 | 3 | 3 | 3 |
| - MEAN | 3,278688525 | 3,06557377 | 3,016393443 | 2,868852459 |
| $\square$ STANDARD DEVIATION | 0,791991628 | 0,786543642 | 0,819672131 | 0,839113698 |

The table above collects the measures of central tendency and standard deviation for questions 5, 6, 7 and 9. The disposition of the data on this table emphasizes the cohesiveness among participants while discussing their habits about technology and smartphones use. However to clearly define participants' cohesiveness, percentages were calculated.

The answers to question 5 (about the number of messages sent by participants daily) obtained the following percentages: $0 \%$ for answer 1 or few, $21 \%$ for answer $2,30 \%$ for answer 3 , and, finally, $49 \%$ for answer 4 or a lot. These percentages displayed how participants sent a high amount of messages per day.


The answers to question 6 (about the quantity of audio or video media participants watch/take/listen to) obtained the percentages as follow: 3\% of the participants answered 1 meaning a few, $18 \%$ of them answered $2,31 \%$ answered 3 , and $48 \%$ of them answered 4 or $a$ lot. As for question 5, it was possible to state that the majority of the participants created or watched/listened to audio or video media daily. Nevertheless, there was a small percentage $(3 \%)$ of them who did not practice it that much every day.

## Question 6 Percentages



The answers to question 7 (about the time spent by participants on social networks daily) obtained the percentages as follow: $3 \%$ of the respondents answered 1 or a little, $23 \%$ of them answered $2,43 \%$ of them answered 3 , and $31 \%$ answered 4 or much. These percentages showed how participants' routine included a large use of social networks.

## Question 7 Percentages



The final question of this series was question 9 (about the use of smartphones for educational purposes). The answers to this question obtained the following percentages: $3 \%$ for answer 1 or never, $33 \%$ for answer 2, $38 \%$ for answer 3, and $26 \%$ for answer 4 or daily. These percentages displayed that, on the whole, the majority of the participants used their smartphones for educational purposes but not daily.

Question 9 Percentages


Question 11 was a Likert scale based on a scale from 1 to 4 where 1 stood for never and 4 stood for often. This question asked whether respondents communicate in a foreign language through their smartphones. According to the measures of central tendency, the most given
rate by participants was 2 meaning that to communicate in a foreign language through their smartphones was not very frequent. Anyway, the median rate was 3 meaning that $50 \%$ of the participants did it quite often. The value for the mean was 2,89 confirming that this action was not so frequent but it happened. Besides, the standard deviation value showed a dispersion of 0,88 from the mean highlighting a high variety in the answers. When it came to making percentages of the answers gathered, it was possible to see that they were approximately the same except for answer 1 -never: $3 \%$ of the participants chose answer $1 ; 36 \%$ of them chose answer 2; 30\% of them chose answer 3, and 31\% chose answer 4 - often. The percentages showed an equal distribution for answers 2, 3, and 4.

## Question 11 Percentages




Question 12 was again a Likert scale based on a scale from 1 to 4 where 1 stood for never and 4 stood for often. This question investigated whether participants used their smartphones in order to do online exercises concerning the foreign language they study. The mode value based on the most given rate was 3 while the median value was 2 meaning that, overall, rates were equally distributed among the answers provided. The mean value coincided with the median value $(2,3)$ confirming equality in the rates given from 1 to 3 . The standard deviation supported this thesis because its value reached the point. This means that the rates which did not coincide with answer 2 can be plus or minus one rate (1 or 3 ). The percentages calculated on the answers are: $30 \%$ for answer 1 - never, $26 \%$ for answer $2,31 \%$ for answer 3 , and $13 \%$ for answer 4 - often. The percentages agreed with the tendency and dispersion established above.

## Question 12 Percentages



Questions 13, 15, and 16 explored what type of devices participants used to learn a language. Question 13 asked if they used mobile applications to study a foreign language. Furthermore, questions 15 and 16 had MOOCs as a theme and asked if participants had ever heard about them and whether they had ever joined a MOOC. These three questions were analysed together, as with questions $5,6,7,9$, because of their structure and their results. In particular, these questions required a Yes/No answer where the answer Yes was coded as 1, while No was coded as 2 . As concerns the rates given by the respondents, despite their different values, they showed a massive cohesiveness in the answers. According to this, the standard deviation values for these answers were not relevant due to a dispersion from the mean which was inferior to a half point (from 0,29 of question 16 to 0,48 of question 15). As regards the measures of central tendency, they quite coincide with the answer which received the majority of the votes. Central tendency measures were about 1 or Yes for question 13 (mode: 1, median: 1, mean: 1,27) and about 2 or No for questions 15 (mode: 2, median: 2, mean 1,6 ) and question 16 (mode: 2, median: 2, mean: 1,9). The percentages for questions 13 on the use of smartphone apps to study a FL were: 79\% of Yes-answers and $21 \%$ of No-answers. The percentages for question 15 on the awareness of the existence of MOOCs were: 39\% of Yesanswers and $61 \%$ of No-answers. The percentages for question 16 which asked to the participants if they had ever joined a MOOC were: $10 \%$ of Yes-answers and $90 \%$ of Noanswers.

Analysis of Questions 13, 15 and 16


Values, represented in the graph above, display a certain level of cohesion among the participants. The majority of them have used mobile applications to study a foreign language, however they did not know what MOOCs are and they have never attended a MOOC course.

Questions 13, 15 and 16 Percentages


The percentages for questions 13,15 and 16 confirmed what highlighted by central tendency measures and dispersion values. On the whole, more than a half of the group gave the same answers. Moreover, in the case of question 16 about the whole group said they have never attained a MOOC.

Question 18 was a Yes/No-answer question which aim was to explore participants' opinions on the usefulness and helpfulness of using a smartphone while studying a foreign language. The codification for the answers analysis was still 1 for Yes and 2 for No. As regards the measures of central tendency, they showed a total cohesion among the sample answers. The value for mode, median and mean was 1. Furthermore, standard deviation value was approximately 0 . As a result, $97 \%$ of the participants agreed that using their smartphones while studying a foreign language was helpful. Instead, only 2 participants answered negatively and they represented $3 \%$ of the answers.

Question 20 was a single-choice question which provided three answers. The question's purpose was to investigate whether respondents preferred learning a language in a traditional context or whether they preferred a virtual learning environment or even both. The answers provided and their codification were: 1 for online classrooms, 2 for traditional classroom, and 3 for both. As regards the measures of central tendency based on the answers given by participants, the mode and median values coincide with the third provided answer meaning that both answer was the most given. The mean value $(2,6)$ confirmed the tendency of the participants to choose the third answer. Furthermore, standard deviation was not so relevant and it reached the value of 0,6 .

## Tendency and Dispersion in Question 20

|  |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | 1 |
| $\square$ Mode | 3 |
| $\square$ Median | 3 |
| $\square$ Mean | 2,573770492 |
| $\square$ Standard deviation | 0,612948167 |

The percentages for the answers to this question were: $6 \%$ for answer $1,30 \%$ for answer 2 , and $64 \%$ for answer 3 . These percentages display that participants were opened to both types of classrooms preferring the traditional ones.

Question 20 Percentages


Finally, question 23 was a single-answer question which provided seven possible answers where to choose. The question asked what participants would like to do with a language application created by themselves so as to enhance their language skills. The answers provided for this question and their codification were: 1 for sending audio media, 2 for watching videos, 3 for writing short texts, 4 for writing circular stories, 5 for creating flashcards, 6 for all of the previous answers, and 7 for none of the previous answers. As concerns the measures of central tendency, the most given answer (mode) for this question was 6 . The median rate was 5 , meaning that a half of the participants had answered with rates from 5 to 7 . Moreover, the mean value was 4,2 displaying an average value of the rates given by participants of one point under the median. The dispersion of the rates calculated through the value of standard deviation was about $2(1,96)$ and it revealed a consistent variety of the answers gathered. Lastly, the percentages for the answers to this question showed which were the answers which received more rates. They were: $18 \%$ for answer 1, $3 \%$ for answer $2,16 \%$ for answer $3,12 \%$ for answer 4, 2\% for answer 5, 49\% for answer 6, and 0\% for answer 7.

## Question 23 Percentages



The most voted answers were all of these activities, sending audio media to improve speaking skills and sending short texts to control grammar, as shown in the graph above.

### 3.2 Qualitative Data Analysis

In this section of chapter 3 the answers to the open-ended questions of the questionnaire and the answers to the three extra questions of the interviews are analysed. As regards the questionnaire, the questions analysed are number $8,10,14,17,19,21,22$, and 24 . All the answers to the questionnaire were analysed by gathering them into general themes, and on this basis, percentages were created. This method gave an immediate picture of the preferences and opinions of the participants.

Question 8 asked to the respondents what the top three portable devices they used to study were. The collected answers did not always give three portable devices as an answer. 21 people gave a complete answer where it was explained that the portable devices used are
notebooks/laptops, tablets, and smartphones. These answers represented 34\% of the whole total. Furthermore, 30 people provided only two devices in their answers: $47 \%$ of them preferred smartphones and notebooks/laptops, while only one participant (2\%) preferred notebooks/laptops and tablets. Furthermore, 7 participants used only one portable device to study: 6 people (10\%) used notebooks/laptops, and a person (2\%) used tablets. Finally there were also collected 3 invalid answers which represented $5 \%$ of the total.

## Question 8 Percentages



Question 10 asked participants to provide three main moments in which they matched the use of ICTs and FLs. This question received a great variety of answers which were often incomplete (participants did not always provide 3 moments). Because of the variety of the answers, they were labelled in 13 categories. These categories are here provided in the following table to simplify data reading.

|  | Answer themes | Answer numbers | Answer percentages |
| :---: | :---: | :---: | :---: |
| $\mathbf{3}$ moments given | Lexis/grammar tools, <br> audio/video media, social <br> interaction | 4 |  |
|  | Lexis/grammar tools, <br> audio/video media, writing <br> texts | 4 | $25 \%$ |
|  | Lexis/grammar tools, <br> audio/video media, <br> reading news/info | 5 |  |
| Audio/video media, <br> reading news/info, writing <br> texts | 5 | 2 |  |


|  | Homework, work and free <br> time (general answer) | 4 |  |
| :---: | :---: | :---: | :---: |
| $\mathbf{2}$ moments given | Lexis/grammar tool, <br> homework | 5 |  |
|  | Audio/video media, social <br> interaction | 4 |  |
|  | Audio/video media, <br> lexis/grammar tools | 5 | $15 \%$ |
|  | Writing text, social | 2 |  |
| One moment given | Lexis/grammar tools | 5 |  |
|  | Audio/video media | 2 | 2 |

As shown in the table, the answers given by participants were distributed quite equally for three main categories which were: people who gave 3 moments of matching ICTs and FLs, as required, people who gave 2 moments, people who provided only one moment in which they match the use of ICTs and FLs use, and people who gave an invalid answer. For the massive range of the answers and for their equal distribution, the analysis of this question focused on the recurrence of two activities in the three groups of participants. On this basis, 31 people mentioned lexis or grammatical tools such as translators, online dictionaries, etc. reaching 51\% of the answers. Moreover, 29 people (48\%) mentioned the use of audio or/and video media as a matching activity of ICTs and FLs use. On the whole, it was possible to assume that the participants to this study usually used their ICTs to check their grammatical competences, to correct their knowledge of a foreign language and to improve their listening skills.

Question 14 asked to those participants who answered to question 13 - which asked whether they used mobile language applications - with a positive answer (79\%), which were the apps they used and why they used them. The codification of the answers to this question was different from the previous question analysis due to the fact that a lot of participants gave more than one answer. For this reason, every application nominated received a point, exceeding the number of respondents, so as to establish which apps were the most used among participants. On the whole, the applications which were nominated the most - 35 times (55\%) - were digitalized dictionaries such as Wordreference, Reverso, Bab.la German, Leo.org, Pons, Linguee, etc. respondents explained that this kind of applications was used because they are helpful in increasing the knowledge of a language, they are usually well built and it is easy and fast to check words on them. They also offer a contextualization of the lemmas. In second position, Duolingo was nominated 12 times (19\%). This application, where the language
learning process is presented as a game, was defined by participants as intuitive, entertaining, amusing and motivating. Along the line of Duolingo, Babbel app was nominated 4 times; Memrise, Quizlet and Kahoot were nominated once each one considering them challenging and useful. Moreover, two applications used to enhance speaking abilities were nominated too, they were: Tandem (1) and Italki (1). Furthermore, Anki app was nominated once and it was defined as useful in learning new vocabulary because it assists the learner in creating flashcards. Google translate app was nominated 3 times and it was principally used to check the correctness of learners' production. Finally, Ted Talk (twice) and YouTube (once) apps were nominated because helpful in developing listening skills. For the most part, it was clear that more than a half of the participants downloaded on their smartphones language applications which can assist them in the application and revision of the foreign languages they already know. Applications where you can learn a new FL as a beginner were less employed in daily life by participants as shown in the graph below.


Question 17 asked participants which the top 3 ways they used their smartphone for FL learning were. As for question 10, the answers collected were not completed at all and in many cases participants provided only two or one ways in which they used their smartphone for FL learning. For this reason, the analysis of this question proceeded as for question 10 . It was actually created a table where the answers were classified.

|  | Answers theme | Number <br> of answers | Percentages |
| :---: | :---: | :---: | :---: |
| 3 answers provided | Online dictionaries, Social app use (to text, Facebook, Learning app) and to listen to/watch Audio/Video media | 8 <br> 7 <br> 2 <br> 3 | 52\% of participants gave 3 answers as requested where there is a high frequency of online dictionaries use and audio/video media use too. |
| 2 answers provided | Online dictionaries, to <br> read articles <br> To listen to/watch <br> Audio/Video media, <br> Social apps use <br> To listen to/watch <br> Audio/Video media, <br> Reading News <br> Reading and Writing <br> Online dictionaries, <br> Social apps use | $4$ $3$ $1$ $3$ $2$ | $21 \%$ of the participants gave 2 answers instead of 3 . The most frequent activities still are online dictionaries use and audio and video media use. |
| 1 answer provided | To listen to/watch <br> Audio/Video media <br> To read articles <br> Online dictionaries use | 5 2 8 | 25\% of the participants gave only one answer. The most frequent activities still are online dictionaries use and audio and video media use. |


| Invalid answers | 1 | $2 \%$ |
| :---: | :---: | :---: |

As shown in the table above, $52 \%$ of the participants correctly completed the answers, while the other $48 \%$ of them provided incomplete or invalid answers. Overall, it was possible to identify some recurrent activities done by the majority of the participants which were: accessing to online dictionaries and listening to or watching audio or video media through the smartphone. The results of this question confirmed and validated the answers to questions 10 and 14 too.

Question 19 was connected to the Yes/No-answer question 18. Question 18 asked whether participants considered useful the use of their smartphones while learning a FL. Moreover, question 19 asked an explanation of the answers given to question 18. The answers gathered for this question had been codified by identifying six main labels where five were positive and one was negative. As concerns the positive labels, $36 \%$ of the participants -22 of them - admitted that the use of smartphones in FL learning is fast, cheap, and often easy and funny. Furthermore, $25 \%$ of them -15 people - stated that through your smartphone you can access to an unlimited quantity of contents in a foreign language, making the learning process real and contextualised. Moreover, $14 \%$ of respondents explained that the use of smartphones can deepen your approach to the FL studied making the learning process more active and less stressful. Instead, 11\% of participants - 7 people - gave a general answer meaning that using a smartphone for educational purposes is an obvious consequence of living in a technological world, and when it comes to interacting and communicating in a FL, people practice and learn from it. 10\% of them-6 people - stated that they find helpful using their smartphones for language learning because they can use these mobile devices everywhere and every time they want. According to that, smartphones seem to fit today's life rhythms. Nevertheless, two participants (3\%) gave a negative answer to question 18 justifying it in question 19 by admitting that the use of smartphones was often a distraction due to the high number of notifications received every day. Finally, an invalid answer was also collected. It represented $1 \%$ of the participants.

Question 19 Percentages


- Fast\&cheap, easy\&funny
$■$ Access to FLs contents
$\square$ Active learning

■ Technological world
$\square$ Everywhere and every time use

Question 21 was an explanatory question which asked to clarify the answer given in the preceding question 20. As already said in this chapter, question 20 asked participants whether they preferred online classes or traditional ones, giving also a third option where both, online and traditional classes were included. As regards online classes, 4 people or $7 \%$ of participants, preferred online classes and gave three different motivations for that. According to them, on online classes you can choose the direction of your learning process preferring some exercises to others and receiving immediate feedbacks meaning that self-management skills are central points in making the learning process effective; the same learning process is more engaging and you can study everywhere. However, more participants - $28 \%$ of them - preferred traditional classes. Three people admitted that traditional classes are stimulating and, according to other three participants, more productive; four of them said that they learn better in these contexts, and, finally, seven of them preferred these classes because they consider social interactions and relationships fundamental for a successful learning process. When it came to analysing the third answers, it was possible to state that the third answer was the most chosen especially because traditional and online classes integrate one another - 32 people justified their answers like that. Other three people admitted that a blended approach can favour students' schedules. Finally, three other people proposed the possibility to work in groups during traditional classes and on someone's own when online. Moreover, the question received an invalid answer. On the whole, the majority of participants preferred the integration of online and traditional classes, as shown in the table below, where traditional classes are still important for the social relationships they can create.

| Online classes | self-management | 2 |  |  |
| :--- | :--- | ---: | :---: | :---: |
|  | engaging | 1 |  |  |
|  | study everywhere | 1 |  |  |
| Traditional classes | stimulating | 3 |  |  |
|  | learn better | 4 |  |  |
|  | more productive | 3 |  |  |
|  | social relationships | $\mathbf{7}$ |  |  |
| Both | schedule adaptive | 4 |  |  |
|  | Online/traditional <br> classes integrate one <br> another | 32 |  |  |
|  | group/single work | 3 |  |  |
| Invalid answers |  |  |  | 1 |

Question 22 asked participants their opinions and feelings about texting with their peers in a foreign language. The labels of codification for this question were five. $41 \%$ of participants - 25 people - felt texting in a FL a useful instrument to learn and improve their knowledge of the same FL. Moreover, $36 \%$ of them admitted that they would feel comfortable or they have already texted in a foreign language. 12\% of them-7 people - would feel uncomfortable or not that comfortable. Five people ( $8 \%$ ) thought that the usefulness of it would depend on the themes discussed and on the context: if the action is forced by a teacher it will appear as unnatural; whereas, if you text with a native speaker it probably will not be that good for practising grammar because of colloquial forms that can be used. Finally, only two people (3\%) gave an invalid answer.

## Question 22 Percentages



Question 24 focussed on the creativity of the participants asking them to propose extra activities they would like to do if they had the possibility to create a language application. The codification for the answers to this question generated twelve major labels. The majority of the answers (16) were invalid or the participant did not have extra activities to propose. Furthermore, 11 people would include in their apps the possibility to have video-calls so as to practice their oral skills and, someone said, to favour those students who study a sign language, for instance. Moreover, 9 people would allow learners to discuss in forums or chat groups to create interesting and involving exchanges of ideas. Furthermore, 5 people for each group would like to: write texts or make summaries, have a grammar assistant, and work on lexis by doing exercises on synonyms or have a word-of-the-day window. Three people per group proposed to: create self-made entertaining videos of everyday life, and create word quizzes and games. Finally, one people for each answer proposed: translation exercises, recording capabilities, an integrated cultural zone, and listening and comprehension exercises. All the percentages relative to the answers gathered are displayed in the graph below.


As regards the three extra-questions of the interviews made to those participants who left their consensus on the questionnaire to be contacted, general statements must be made. Only 10 participants left their agreements to receive and to answer more questions based on the questionnaire results and on studies conducted by scholars, meaning that $17 \%$ of the whole total of the participant was inclined to participate to something longer and deeper than a
questionnaire. Furthermore, the method chosen to get in touch with participants - through emails - has revealed not that efficient because it only provided 3 answers, meaning that $5 \%$ of the participants answered to the interview questions. That is why the answers collected cannot be considered as efficient to the aim of the research because they lost in validity due to their low quantity. As already said, the interview questions could be answered by writing a short text or by sending oral messages. The answers received were all written answers.

Question 1, after a brief overview of European statistics and questionnaire outcomes, asked why, in participant's opinion, traditional classes still have an important role in today's education. According to the answers gathered and to students' opinions, learning a language is felt as a means to communicating to others and communicating with real and physical people gives a sense of authenticity to the act itself especially for those who are not digital native and who live the use of digital tools to study as unnecessary. Furthermore, other respondents highlighted the importance of teachers' role as monitor for possible mistakes.

Question 2 displayed the reasons, defined by scholars and by the questionnaire answers, why students use smartphones to learn a language. Smartphones are easy-to-use, cheap and versatile devices which can be used everywhere and every time you want with constant access to the Net. Some researchers have also stated that smartphones contribute to the development of autonomy in language learning. The question asked participants whether they think that being the one who chooses for his/her own learning enhancement, makes the learning much more effective and interesting and which kind of assistance they would need to be independent and self-aware of their linguistic growth. In this case, one of the three participants admitted that digital devices do not make language learning more interesting but they could make it more effective because you can carry them with you all the time and everywhere. While, the other two participants agreed that self-managing the learning process, through mobile devices, is helpful and stimulating. Nevertheless, one of them also said that a free learning experience could make you develop only some aspects of a language instead of creating a complete knowledge of it. Moreover, the principal assistance chosen by participants is given by smartphones and laptops for their pragmatism and habitual use.

Question 3, explained to participants what MOOCs are and how they are structured. Furthermore, it was explained that even if MOOCs are spread in Europe and supported by the EU's Council, it seemed from the questionnaire that few people knew or attended them. According to scholars, the failure of MOOC platforms could be connected to the lack of control
of the learning process and a lack of legal certification (e.g. college credits) of these courses. The question asked whether participants believed MOOCs as useful tools, which their opinions about the unawareness of MOOCs' existence are and which the role of European governments in this situation is. Among the three respondents, only two of them knew what MOOCs were. These participants sustained that MOOCs platforms were not clearly promoted by the governments of their countries. Furthermore, where one said politics should not deprive citizens of this opportunity, the other said that universities offer an excellent amount of courses to their students that they do not feel the need to search for others. The third respondent admitted that MOOCs are not advertised as they should and that they would represent an important means to learn and to get in touch with the surrounding world especially for those who already have a job.

On the whole, the three answers gathered seemed to confirm the general opinion collected through questionnaires.

### 3.3 Discussion

In this section of chapter 3, the findings of this research are compared with previous studies and discussed.

According to the questionnaire put on the social media, $89 \%$ of the participants to this study were female. Furthermore, their age went from 20 to 30 years of age. As already said in chapter 2, participants who participated in the questionnaire showed a high educational attainment where $77 \%$ of them had an educational level which went from high school to Bachelor's degree. Moreover, 49\% of them are attending a Master's degree course. The sample participants also displayed a high inclination in using smartphones, social networks and mobile devices for communication or maintaining social relationships and for educational purposes (see 3.2). Communication in a foreign language through mobiles, and especially smartphones, is spread among the participants. By comparing these results with the tendency
of European population (1.1) in Eurobarometer's survey - which identified as the most habitual users of technology and FLs young people from 15 to 39 years of age - it is possible to determine that those people who participated in the questionnaire can be inserted in the range given by Eurobarometer's survey (2012). Furthermore, Eurobarometer's research (2012) stated that young people who have finished their educational courses or have a relevant educational attainment and are aged over 20 years of age, are more inclined to using technologies and foreign languages. These statements are perfectly in line with the questionnaire results.

Among the instruments mentioned to study, $81 \%$ of the participants nominated, in the questionnaire, smartphones and laptops or notebooks as the most used devices for educational purposes. The main reasons respondents gave for the use of these ICTs included the necessity of controlling their grammar and vocabulary while dealing with a foreign language $-51 \%$ of them - and to listen to or watch audio and video media - $48 \%$ of them. These results are consistent with Kukulska-Hulme and Shield's (2008) theories which said that language acquisition needs a lot of informal practice which can be supplied by new technologies. Moreover, these new technologies can help learners in self-regulating their learning process (1.2).

Focusing on smartphones, $97 \%$ of participants revealed to find smartphones useful in language learning. In particular, questionnaire participants admitted to using smartphones in FL learning because they are fast, economically affordable, easy to use, and funny (36\%). 25\% of the participants said that smartphones could provide learners with an unlimited amount of contents whereas $14 \%$ of them said that the learning process is felt as more active and less stressful. On the whole, participants' opinions are consistent with scholars' ones. According to Stockwell and Hubbard (2013), smartphones are used in language learning because nowadays everybody owns a smartphone which is a device which can cover a wide amount of functions. Furthermore, as Berger (2001) states in his research, owning a smartphone or any kind of mobile leads to the possibility of using it to study everywhere and every time it is needed or the student wants. Moreover, the fact that many participants feel the learning process through the use of smartphones to be more active and less stressful is consistent with Campbell's theories (2005). Campbell (2005) sustains that smartphones make learners independent meaning that they are responsible for their behaviour and their linguistic growth in this case. Along this line, Han and Keskin (2016) confirm that this particular device can be an emotional
barrier which can be used to avoid possible mistakes and the anxiety they could cause. Many others are the studies which have shown how students are pleased by using personal mobiles to be in contact with a foreign language (Cavus, Ibrahim, 2008). Furthermore, using a personal device in language learning results to be very easy for those students who own one because they already know how to use it (Barrs, 2011).

It is clear how mobiles are becoming normalised technologies (Bax, 2003) for language learning. Nevertheless, few studies investigate in which way students use their mobiles to study a FL. That is why in the questionnaire, students were asked in this sense. The answers gathered showed that participants do not use quite often their mobiles to do online exercises on websites, for instance, but $79 \%$ of them are familiar with the use of language applications which offer a quick and funny way to learn. In particular, $55 \%$ of those who are accustomed to language apps use dictionaries apps whereas $19 \%$ of them uses Duolingo which is an app which mixes all the MALL benefits with games appeal and it offers personal learning paths with progressive rewards (https://en.duolingo.com/). Research studies conducted by Muhammed (2014), Steel (2012), and Barrs (2011) have already revealed how students use their smartphones in a versatile way in such a way so as to learn and be in contact with a foreign language. For example, students use their smartphone cameras to take a picture of teachers' notes on black or digital boards; they also use the recorder to enhance their pronunciation or record someone's speaking. As regards those apps which do not compare in the standard equipment of a smartphone, students seem to have a bias for vocabulary and grammar or reading and writing apps as declared in the questionnaire too, especially for dictionaries apps.

At this point, the relocation of the educational process into a digital environment is unquestionable. This is extremely true at the point that $64 \%$ of the participants to this research - while asked whether they prefer traditional or online classrooms - answered by saying that they preferred a mixture of them not excluding one educational environment or the other. Nevertheless, $30 \%$ of the participants who still preferred traditional classes cannot be forgotten. Those who are pleased both traditional and online classes have already experienced blended learning projects or were accustomed to the integration of digital and real contexts. Whereas those who preferred traditional classes sustained that traditional classes are more stimulating and productive because they are based on social relationships and exchanges. On a bigger scale - which the EU is - it seems that citizens agree with those participants who opted for traditional classes as favourite learning contexts (Eurobarometer's survey, 2012). As seen in
section 1.2, the majority of Europeans still believes and identifies traditional classrooms as the most effective way to learn a language (Eurobarometer, 2012). Other studies - for instance Ramamuruthy and Rao's one (2015) - confirmed that smartphones and mobiles cannot substitute frontal lessons or other digital approaches (Motiwalla, 2007) such as the blended one where digital lessons are interchanged with frontal lessons along the learning path (Garrison, Kanuka, 2004).

As far as new approaches and innovative ways of learning are concerned, participants were asked if they were familiar with MOOCs and if they have ever joined a MOOC course. The answers gathered showed an almost total unawareness in this field and in MOOCs existence. $61 \%$ of the participants did not know what MOOC platforms are and $90 \%$ of them have never joined a MOOC. These results are interesting for the fact that learners who are completely plunged into a digital world and use free FL apps on their smartphones do not know one of the easiest, self-manageable, and free experience provided by university teachers from all over the world to learn a language on the Net. The possible reasons for this lack of interest in MOOCs could be a lack in the advertisement of this product and in the certification of MOOCs tests on a legal level by governmental institutions (Valkenburg et al., 2015). Or, more easily and as already said above, because students continue to favour a traditional or a quite traditional way of learning.

Nevertheless, innovation at the basis of this research is to ask directly to learners how they feel in using a FL through their smartphones, for instance while texting, and to ask them what they would like to do with an ideal language app of their creation. As the results of the questionnaire show, almost a half of the participants (49\%) would like to create an application which could cover all the linguistic aspects of a language in such a way as to enhance their proficiency in a complete way (see section 3.2). Furthermore, some participants would introduce activities which go beyond usual ones such as the possibility to have video-calls especially with native speakers - and the possibility to have forum discussions on interesting themes. However, learners are already quite comfortable in using and interacting in a FL through their smartphones.

As far as the methodology used to gather the data displayed in this research is concerned, it is possible to state that the questionnaire - as its nature suggests - has been a fast, efficient and, for the most, reliable source of data. In the case this study would be
repeated, the suggestion for the questionnaire use could interest the texts or the forms of some questions which could be improved.

On the contrary, this cannot be affirmed for what concerns the extra interviews. The fact that interview questions were optional has led participants to the possibility of avoiding them by not giving an e-mail address where to be contacted. Instead, for those participants, who initially seemed favourable to be contacted with extra questions, avoiding an answer has been easy due to the fact that an e-mail can be easily lost in a large group of e-mails or cannot be read at all. On the whole, distance interviews, as method to collect the answers, have not reached the interest of the participants to this study probably because of their format and the fact that they do not guarantee a reward. As a consequence, a solution to this problem could be the addition of explanatory open-ended questions to the questionnaire or the change of the typology of the interviews which become from distance interviews to face-to-face interviews where a symbolic reward is provided.

## Conclusions

The aim of this study was to discover whether language learners spontaneously use their smartphones for learning a foreign language or at least to deepen their knowledge of languages they have already studied. Furthermore, the research has investigated how learners perceive the use of their smartphones in language learning and what they would like to do with their smartphones to improve their skills in a foreign language.

Overall, this was the main innovation of this research because not only tested it the efficacy of the use of smartphones in language learning but also highlighted learners' feelings about it and how participants would like to manage their learning process.

As far as findings are concerned, learners were expected to use their smartphones as a means to accessing contents of different typologies from entertaining files to educational ones. The use of language applications by a great number of participants was also expected. However, what kind of applications students use in private learning was quite unexpected because of the variety of apps that today's smartphones offer.

On the whole and as research findings have shown, a sample of language learners aged from 20 to 30 - who have a high level of education and who daily use smartphones - admitted that they are quite familiar with the use of mobile technologies and smartphones while learning a foreign language. A great part of them uses smartphones applications to enhance their knowledge of a language because applications are principally fast, accessible every time students want, and entertaining. Furthermore, participants appeared favourably disposed to using this kind of technology to enhance their proficiency because it is easy to use, it gives access to unlimited contents and makes the learning process more involving and less stressful if compared to traditional classroom lessons. Moreover, while asked to explain what they would like to do with an application of their invention, students mainly answered that they would like to do activities which cover all the spectrum of the knowledge of a language from listening to writing or learning vocabularies by adding the possibility to have video-calls and forum discussions. The fact that language learners preferred dictionary apps and Duolingo as main apps for language learning was quite unexpected. This can highlight that students - in
their private learning - tend to monitor their knowledge and correct it while wrong; and that students are pleased by learning in a funny way. On the whole, students seemed to find independent ways of learning a language and autonomously enhancing their skills.

As the findings have shown along their analysis in chapter 3, they actually answered all the research questions which were at the basis of this study. They also showed to be consistent with previous studies conducted in this field by scholars, as already said in section 3.3. Nevertheless, this study had a more important implication than the mere use of technology in language learning which is the fact that learners seemed to feel the need to complete their knowledge and to train those skills they think that should be enhanced by them-selves displaying a great awareness of the powerful use of mobile technologies. As a consequence, this should be taken into consideration by educators who should address and instruct their students to exploit at the maximum levels the tools they have to learn by promoting Mobile-Assisted Language Learning. In this way, smartphones and mobiles would not be a limitation to an effective and attentive learning but an incentive to study in a more active and engaging way.

Lastly, this study could be enhanced from a methodological point of view, especially as regards interviews method. It could also be a basis for a larger investigation involving participants of a wider region in such a way as to create applications and tools which better fit students' needs. Future studies might also attempt to reproduce this study on a sample of students with lower levels of education - for instance, students who are attending high-school - to verify whether they are interested in using language applications and whether they are distracted from notifications which do not concern the learning process.

## Bibliography

Alfaki, I., Alharthy, K. (2014). Towards a Digital Word: Using Social Networks to Promote Learner's Language. American International Journal of Contemporary Research, volume 4, number 10.

Bansal, T., Joshi, D. (2014). A Study of Students' Experience of Mobile Learning. Global Journal of Human Science, volume 14.

Barrs, K. (2011). Mobility in Learning: The Feasibility of Encouraging Language Learning on Smartphones. Studies in Self-Acces Learning Journal, volume 2, number 3.

Bax, S. (2003). CALL- Past, Present and Future. System, number 31.

Berger, C. (2001). Wireless: Changing Teaching and Learning "Everywhere, Everytime". EDUCASE review, Jenuary/February.

Bouhnik, D., Deshen M. (2014). WhatsApp Goes to School: Mobile Instant Messaging between Teachers and Students. Journal of Information Technology Education: Research, volume 13.

Bruner, J. (1960). The Process of Education. Cambridge, MA: Harvard University Press.

Calvo, R., Arbiol, A., Inglesias, A. (2014). Are All Chats Suitable for Learning Purpose? A Study of the Required Characteristics. Procedia Computer Science, 27.

Campbell, M. (2005). The Impact of the Mobile Phone on Young People's Social Life. Conference Paper: The Social Change in the $21^{\text {st }}$ Century Conference.

Cavus, N., Ibrahim, D. (2008). M-Learning: An Experiment in Using SMS to Support Learning New English Language Words. Britsh Journal of Educational Technology, volume 40 Issue 1.

Chaka, C. (2009). Portable Handheld Language Learning: from CALL, MALL to PALL. IGI Global.

Cooperman, L. (2015). MOOCs in the Era of Higher Education's Digital Transition. Published in Position papers for European cooperation on MOOCs by Jansen, D. and Texeira, A. (2015). EADTU.

Diaz, L.E.H. (2010). Self-access Language Learning: Students' Perceptions of and Experiences within this New Mode of Learning. Mexico: Dirección General Editorial.

Dörnyei, Z. (2007). Research Methods in Applied Linguistics. Oxford University Press: USA.

European Commission Directorate-General for Communication Citizens information, (2014). The EU explained: Digital agenda for Europe. http://europa.eu/pol/index en.htm

Eurostat (2017). Being young in Europe Today. http: // ec. europa. eu/ eurostat/ statisticsexplained/ index. php? title=Being_ young_in_Europe_today_ -_digital_ world

Fattah, S. (2015). The Effectiveness Using WhatsApp Messenger as One of Mobile Learning Techniques to Develop Students' Writing Skills. Journal of Education and Practice, volume 6 number 32.

Garrison, R., Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. Internet and Higher Education, volume 7.

Godwin-Jones, R. (2011). Emerging Technologies: Mobile Apps for Language Learning. Language Learning \& Technology, volume 15, number 2.

Godwin-Jones, R. (2013). Integrating intercultural competence into language learning through technology. Language Learning \& Technology, 17(2), 1-11.

Gremmo, M., Riley, P. (1995). Autonomy, Self-Direction and Self-Access in Language Teaching and Learning: The History of an Idea. System, volume 23, number 2.

Guàrdia, L., Maina, M., Sangrà, A. (2013). MOOC Design Principles. A Pedagogical Approach from the Learner's Perspective. eLearning Papers, number 33.

Gündüz, N. (2005). Computer Assisted Language Learning (CALL). Journal of Language and Linguistic Studies volume 1, number 2.

Han, T., Keskin, F. (2016). Using a Mobile Application (WhatsApp) to Reduce EFL Speaking Anxiety. GIST Education and Learning Research Journal, number 12.

Hatch, E., Lazaraton, A. (1991). The Research Manual: Design and Statistics for Applied Linguistics. Heinle \& Heinle Publishers: Boston.

Haug, S., Castro, R.P., Kwon, M., Filler, A., Kowatsch, T., Schaub, M.P. (2015). Smartphone Use and Addiction among Young People in Switzerland. Journal of Behavioural Addictions, number 4.

Holec, H. (1981). Autonomy and Foreign Language Learning. Oxford: Pergamon.

Howlett, G., Waemusa, Z. (2019). $21^{\text {st }}$ Century Learning Skills and Autonomy: Students' Perceptions of Mobile Devices in the Thai EFL Context. Teaching English with Technology, volume 19.

Johnson, S., Aragon, S., Shaik, N., Palma-Rivas, N. (2000). Comparative Analysis of Learner Satisfaction and Learning Outcomes in Online and Face-to-Face Learning Environments. Journal of Interacting Learning Research, number 11.

Kern, R., Warschauer, M. (2000). Introduction: Theory and practice of network-based language teaching. Cambridge University Press.

Kivunja, C. (2015). Exploring the Pedagogical Meaning and Implications of the 4Cs "Super Skills" for the $21^{\text {st }}$ Century through Bruner's 5E Lenses of Knowledge Construction to Improve Pedagogies of the New Learning Paradigm. Creative Education, volume 6.

Klopfer, E., Squire, K., Jenkins, H. (2002). Environmental Detectives: PDAs as a Window into a Virtual Simulated World. Proceeding of IEEE International Workshop on Wireless and Mobile Technologies in Education. Conference paper.

Kop, R. (2011). The Challenges to Connectivist Learning on Open Online Networks: Learning Experiences during a Massive Open Online Course. International Review of Research in Open and Distance Learning, volume 12.3.

Kukulska-Hulme, A., Shield, L. (2008). An Overview of Mobile Assisted Language Learning: from Content Delivery to Supported Collaboration and Interaction. ReCALL, 20(3).

Leis, A., Tohel, A., Cooke, S. (2015). Smartphone Assisted Language Learning and Autonomy. International Journal of Computer-Assisted Language Learning and Teaching, volume5.

Little, D. (2007). Language Learner Autonomy: Some Fundamental Considerations Revisited. Innovation in Language Learning and Teaching, volume 1, number 1.

Motiwalla, L.F. (2007). Mobile Learning: A Framework and Evaluation. Computer an Education, number 49.

Muhammed, A. (2014). The impact of Mobiles on language learning on the Part of English Foreign Language (EFL) University Students. Procedia - Social and Behavioural Sciences number 136.

Naert, F. (2015). MOOCs, SPOCs, DOCCs and other bugs. Published in Position papers for European cooperation on MOOCs by Jansen, D. and Texeira, A. (2015). EADTU.

Nurhaeni, Purnawarman, P. (2018). The Use of Smartphone and Learning Strategies in Autonomous Learning. Indonesian EFL Journal, volume 4.

Ramamuruthy, V., Rao, S. (2015). Smartphones Promote Autonomous Learning in ESL Classrooms. Malaysian Online Journal of Educational Technology, volume 3 number 4.

Saville, N., Gutierrez, E. (2016). Research for Cult Committee - European Strategy on Multilingualism- Policy and Implementation at the EU Level. http://www.europarl.europa.eu/supporting-analyses

Simonson, M. (1999). Equivalence Theory and Distance Education. Tech Trends volume 43.
Steel, C.H. (2012). Fitting Learning into Life: Language Students' Perspectives on Benefits of Using Mobile Apps. Research Gate.

Stockwell, G., Hubbard, P. (2013). Some Emerging Principles for Mobile-Assisted language learning. Monterey, CA: The International Research Foundation for English Language Education.

Tashakkori, A., Teddlie, C. (1998). Mixed Methodology: Combining Qualitative and Quantitative Approaches. Sage Publications: London.

TNS Opinion \& Social at the request of Directorate-General Education and Culture, DirectorateGeneral for Translation and Directorate-General for Interpretation (2012). Special Eurobarometer 386 -Europeans and their Languages.

Valkenburg, W., Kos, T., Ouwehand, M. (2015). MOOCs as accelerator of change. Published in Position papers for European cooperation on MOOCs by Jansen, D. and Texeira, A. (2015). EADTU.

Vavoula, G.N., Sharples, M. (2002). KLeOS: A personal, mobile, knowledge and learning organization system. In Milrad, M., Hoppe, U., and Kinshuk (Eds.)

Vinther, J. (2011). Cognitive Skills through CALL- Enhanced Teacher Training. Published in Zhang, F. (2011). Computer-Enhanced and Mobile-Assisted Language Learning: Emerging Issues and Trends. Information Science Reference.

Zayed, N.M. (2016). Special Designed Activities for Learning English Language Through the Application of WhatsApp. English Language Teaching, volume 9, number 2. Canadian Centre of Science and Education.

## Appendixes

1.The Questionnaire

## Questionnaire on the Use of Smartphones in Foreign Language Learning

This questionnaire is part of a Master's Degree research which aim is to investigate how students spontaneously use their smartphones in order to enhance their foreign language (FL) skills and how they would like to use their smartphones for language learning.
The main aim of the questionnaire is to collect data on the frequency of use of smartphones by students while they are learning a FL. Besides, this questionnaire has as its purpose to find out students' opinions concerning how they would like to use their smartphones for educational purpose and which activities they would prefer to do.
*Required

1. Are you.. *

Tick all that apply.MaleFemale
2. What is your age? *

Tick all that apply.14-1920-2425-30Other:
3. What is your educational attainment? *

Mark only one oval.
High schoolBachelor's degreeMaster's degreeOther:
4. What course are you attending? *

Tick all that apply.High schoolBachelor's degree
5. How many messages do you send daily? (texts, instant messages, etc.) *

Mark only one oval.

|  | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| few | $\square$ | $\square$ | $\square$ | $\square$ |

6. How many audio or video medias do you watch or take daily? *

Mark only one oval.

7. How much do you use social networks daily? (Facebook, Instagram, Twitter, etc.) * Mark only one oval.

|  | 1 | 2 | 3 | 4 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| a litte | $\square$ | $\square$ | $\square$ | $\square$ | too much |

8. Which are the top three portable devices you use to study? *
9. How much do you use your smartphone for educational purpose? * Mark only one oval.

|  | 1 | 2 | 3 | 4 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| never | $\square$ | $\square$ | $\square$ | $\square$ | daily |

10. Provide three main moments you match the use of ICTs (Information and Communication Technologies) and the use of FLs *
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Smartphones and Foreign Languages

Everybody can state how much our lives are rife with smartphones. As a main aspect of everybody's life, language education has been plunged into this digital world too. With this premise, this section of the questionnaire examines how much students use their smartphones to improve their knowledge of a foreign language focusing on the real aim of the research.
11. Do you use your smartphone to communicate in a foreign language or at least, does it happen to you to communicate in a foreign language through your smartphone? (with your friends, on Facebook, on online video games, etc.) *
Mark only one oval.

12. Do you use your smartphone to do online exercises about the FL you are studying? * Mark only one oval.

13. Do you use mobile applications to study a FL? (Babbel, HiNative, Duolinguo, Dictionaries etc.) * Tick all that apply.YesNo
14. If your answer is yes, which application or applications do you use?Why?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
15. Have you ever heard about MOOCs (Massive Open Online Courses)? *

Tick all that apply.YesNo
16. Have you ever joined a MOOC through your smartphone? *

Mark only one oval.


Yes
No
17. Which are the top three ways you use your smartphone for FL learning? *

## How do you feel about using your smartphone in FL learning?

This last section of the questionnaire has been planned to ask you your opinion about smartphones and their use for educational purpose.
18. Do you think using your smartphone is helpful while studying a foreign language? * Tick all that apply.
$\qquad$ YesNo
19. Why? *
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
20. Do you prefer learning a FL online or in traditional classrooms? *

Tick all that apply.onlinetraditional classroomsboth
21. Why? *
$\qquad$
$\qquad$
$\qquad$
$\qquad$
22. How would you feel about instant messaging (sending oral and written texts) with your peers in a FL? Why? *
$\qquad$
$\qquad$
$\qquad$
$\qquad$
23. If you had the possibility to work with an apps developer to create a FL app, what are the main things you would like to do with this app so as to enhance language skills? *
Mark only one oval.Sending audio medias to improve my speaking skillsWatching videos to improve my listening skillsWriting short texts to have total control of my grammar and my productionWriting a circular story where sharing my thoughts with my peers and creating something
togetherCreating flashcardsAll of themNone of them
24. Please propose other activities you would like to do or you do with your smartphone in such a way so as to increase your proficiency in FL learning and explain why you chose them *
25. If you would like to be contacted to deepen your answers, please leave your email address here
2.Quantitative Data



3.Qualitative Data

| Number of the Questionnaire | $\left\lvert\, \begin{aligned} & \text { 8-Which are the top three portable } \\ & \text { devices you use to study? }\end{aligned}\right.$ | 10-Provide three main moments you match the use of ICTs (Information and Communication Technologies) and the use of FLs | 14-If your answer is yes, which application or applications do you use?Why? | 17-Which are the top three ways you use your smartphone for FL learning? | 19-Why? | 21-Why? | 22-How would you feel about oral and written texts) with your peers in a FL? Why? | 24-Please propose other activities you would like to do or you do with your smartphone in such way so smartphone in such a way so as to increase your proficiency in FL learni and explain why you chose them |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | smartphone, cc, tablet | I use online dictionaries, I watch movies in FLs and I watch video in FLs on social media | Babbel | Already answered before | Cause we are in a technological world | 1t stimulates you | $\begin{aligned} & \text { \|ralways do it cause lived } \\ & \text { abroad } \end{aligned}$ |  |
| 2 | Tablet, laptop, smartphone | Translations | Tandem, Duolinguo | Online dictionaries, apps, videos | It's a tool you can use everrwhere | I learn things better | A bit uncomfortable | Writing texts |
| 3 | Computer | Tv |  | video | Foreign language contents | More productive | Good, you can learn | Nothing |
| 4 | Laptop, ipad, smartphone | During reading in a foreign language for searching the words that I can't understand, during videos or movies in a foreign language, for writing essays in German, Dutch or English | Dictionaries: Pons cause it is made very good and it is very helpful for my German | To search new words, watch movies and to listen to podcasts | Cause I handle with my smartphone everyday and I follow lots of pages on Facebook |  | Very comfortable | I would like to have the opportunity to talk "face to face" with native speakers cause speaking with a native is more useful than writing or listening only with an app |
| 5 | Laptop and mobile | Fis means? | Duolinguo | Read articles | It's anyway communication. Reading and writing. | Ithink it's nice to integrate and keee learning while you ane present in classroom. | I'm always wondering if they get the correct thone | 1 suggest to integrate " grammar teacher " functionality into w.app ; |
| 6 | Smartphone, tablet, computer | During the lesson to check vocabulary, at home doing the homework, while visiting foreign country to look up words I don't know | Context reverso, it's more reliable than any other because it gives full sentences with the context. | Using online dictionaries, chatting with foreign students, watching videos online | You learn specific lexicon, it's faster and cheaper |  |  | Maybe creating a film club where people can discuss a film everybody has previously watched |
| 7 | PC, smartphone | $\begin{aligned} & \text { Translation, watching videos in FL, reading } \\ & \text { newspapers online in FL } \end{aligned}$ |  | Dictionary, videos, newaspapers articles | You have quick access to dictionaries, online articles and videos |  | I think it would be a useful way to practice the language | Creating forums where the members can speak about a certain topic they are intersted in |
| 8 | book, computer, smartphone | reading articles, watching videos, scrolling my Facebook page | dictionary, it is faster | videos, articles, meme | because it provides a wider range of information on a specific topic | Learning online is useful when it comes to real-life Language; in a classroom a teacher monitors someone's use of that language | I would agree if this could lead to interesting and useful discussion or forum | propose everyday life videos of people with different culturar background, having any specific academic aim but entertaining and making it simpler and more actual to enjoy Learning a FL |
| 9 | rtphone, pc | dictionary, newspaper articles, tv series | wordreference | dictionaries | easier and faster | They have both positive things | Embarassing. | don't know |


| 10 | Smartphone, laptop and tablet | Learning vocabulary, understanding the pronunciation and communication |  | Checking the pronunciation of a word, searching for new vocabulary synonyms and reading FL articles, etc. | Because, for instance, you could have doubts about how a word is written or pronounced. You look up on the Internet and you immediately know if you're right or wrong. You could also interact with your FL speakers and test your language skills and knowledge. You could also read newspaper articles in your FL in order to expand your vocabulary, your syntax knowledge and your writing skills. | Because both methods give you different approaches to the language you're studying. And I think that there's always more than one way to learn a FL, especially nowadays that to say that the traditional classrooms are not useful, they sure are. But both could and can work together. | At first, I would feel a bit insecure of my communication skills or writing skills. But with a little bit of practice and challenge, it could be a great learning method. | - Watching a video online about a certain topic (social, economical or cultural, etc.) and then summarise it to verify if it's been understood or not. - Choosing some words from an online article and then finding other synonyms to those words to expand the lexicon. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | Smartphone, laptop, computer | While watching movies, videos and social media | Duolinguo because it's intuitive and entertaining | Watching movies, tv series and using social media | It's a quick and quite relaiable source of material in foreign languages | They complete each other | I'm comfortable with the idea because I already do that | Having an automatic corrector for grammar while writing short texts |
| 12 | translate.gogle, wordreference | in translatios, in prouunciation, in writing | translate.google and babble for correctness | to isten to native speakers | for informaton | you can manage to do it whenever you want and it is always given the feedbacks | tis normal | watching and following EL native speaker |
| 13 | Smartphone and notebook | Reading the news online, watching videos or writing messages to my foreign friends | Dictionary when I need to solve doubts on spelling or when I forgot a specific word. I use it because is fast and easy to use. | Whatching online videos, reading online articles and using Social network. | Because you always carry it with you and it provides a mobile acces to the internet. | Because they offer a more human and social relationship than the online couterpart. | 1 find them useful to practice but not between people on far diffent diftent evels and with the atcororet it's miseading | Iplay word or quitt games every once in awhile because 1 can learn things that you would normally find difificult to learn in a classical class. |
| 14 | PC, smartphone | Doing University homework, staying on social networks, looking for information on different topics | Dictionaries, Reverso Context | Looking for translations, using apps for learning, listening exercise | It's easy and fast to use |  | It seems useful to me, even though I don't do it | Writing texts and having them corrected by an app, listening to spelling tests |
| 15 | ${ }^{\text {p }}$ | ranslating; researching | anichelli dictionary. It's faster | Talking to native speakers; reading articles; watching videos | Gives you the opportunity to have fast access to every kind of information you might need | I think both are fundamental to learn a foreign language | Comfortable. I'd not be afraid to make a mistake | Reading articles and try to give an opinion on that matter. It helps you not only to improve your reading and speaking skills but also to think in your target language. |
| 16 | Computer, smartphone | Morning |  | Dictionary | It can be helpful to use some apps | I don't like studing with pc | $\begin{aligned} & \text { It can be useful in mano } \\ & \text { occasions } \end{aligned}$ | I study sign language and i use telegram with which i can send instant videos and then watch them al home |
| 17 | Lato top, smartphone | Rarely |  | Social networks, online dictionaries, video online | It distracts me | I prefer way more doibg the exercise with someone Who can explain the errors | Relaxed? | Online lessons |
| 18 | Smartphone, tablet, pc |  <br>  <br> Scrollinin I Instagram, reading articles, <br> istening to podcasts | Reverso Context | I use the online dictionary, read articles in English and watch videos | It gives me the opportunity to keep in touch with friends from all over the world | It is useful to have a professor irl to clear out all your doubts | Ido it quite often | Shooting videos to record myself while speaking |
| 19 | only pc | youtube videos, blogs reading, messaging via Messanger App |  | Most of the content I read and watch with the smartphone is in English (the FI I stidy), I text daily with my boyfriend in English, but don't use it to study even if by doing this activities I actually practice English, but we could say I don't do it intentionally | it can helpto use those empty moments such as commuting on the train, waiting in a line etc. to consume content in English and it can help to create more imput for FL learning that a learner seek ou by himself and therefore chooses imputs that are actually interesting for him/her | it is more engaging and helps me to stay focused | if $m$ peers share the same L1 with me and we are asked to use the FL to message l would feel that is would be a bit "forced" and not a realistic situation othertwise lthink it would be useful to imoprove in the FL. | video talks/chats with other learners of <br> FL |


| 20 | Smartphone and computer | Youtube videos, foreign tu series | Duolingo. Ifind it tuite amusing and motivating | Watching videos in foreign languages | \|t tives a more complete approach than | \|think the best are blended approaches. You could get the basis in a class with a professor to guide you, and then expand your knowledge doing and watching what vou feel comfortable with your smarthone smartphone | loccasionally do that. I believe it gives peopple a new point of view from which to express ideas <br> ideas | Encourage peer to peer interactions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | SMARTPHONE, COMPUTER |  | BAB.LA GERMAN | Google - Official Websites | Interactivity helps throughout the learning process | There are pro and cons to each side, the traditional way is still my fav of course but if you don't have the chance to reach a uni, why not online then? |  |  |
| 22 | iPad | Listening skills, dictionary, just for chilling and learning sth in another language | Context reverso and drops for vocabularies and translation from it to eng and vice versa, il kovaliov for ru/it | Only for translations and unknown words and/or idioms | It's a more active kind of learning compared to the traditional books and it offers a wider range of topics that better fit my interests | Because I can manage time and topics as I want | I feel very comfortable about it. On the first hand, I feel less embarrassed than talking f2f and on the second hand I have the time to think and elaborate my answer | Jothing |
| 23 | Books, pc, smartphon | My phone setting is in target language, watching films in target language, using online translators |  | Texting, translator, video | Because it is really fast, it is portable and versatile | Traditional classroom can give you a good language base, online course can help you to practise or deeper in some topics | $\begin{aligned} & \text { I quite every day send and } \\ & \text { receive oral and written texts } \\ & \text { with peers in fl, Ifeel } \\ & \text { comfortable about it } \end{aligned}$ | Idon't know |
| 24 | Smartphone, laptop, tablet | Daily? (Question is not clear) | Quizlet and Kahoot! Are good for vocabulary, italki for speaking, TED, Rossijia, Netflix, podcast, tuneinradio fro listening, I lalso use wordreference as a dictionary | Watching movies on Netflix, Listening to podcasts or radio, Using apps or reading searching the web in a FL | Because you learn in a fun and useful way, and you often forget you are learning | Traditional classrooms are a good way to start, but they are not cheap and level one can go on and improve alone using online resources. Of course it also depends on the maturity and character of every single student: studying online requires commitment, organization and constance | Why not? ' have done it and would do it again. It's fun and it helps not feeling judged | Reading interesting facts on different topics so that everybody could find something they are interested in), watching tutorials (learning by doing) |
| 25 | smartphone, pc | When itext to my tandem partners abroad | Babbel and Duolingo because ifind them challenging | I watch movies or documentaries in English language, i text to my friends abroad and i use the online dictionary | Because is the easiest way to have a lot of information when i need it | ${ }^{\text {Because ifel it more }}$ | $\begin{aligned} & \text { It would be a good way to } \\ & \text { improve my language skills } \end{aligned}$ | Oral conversations with feedback |
| 26 | Laptop and smartphone | When bored, on the train, waiting for somebody/something | Reverso context because provides a lot of variaties of a FL | Listening to songs, read news | Easy accessibility to information | I prefer communication face to face so I can memorize much more better | Nice because you learn new ways of being natural in a language | I would add a online chat group with foreign students of other universities |


| 27 | PC, smarthhone (app for translation) | Translation, writing, consultation of grammar/language sites | Wordreference, Conjugador | Dictionary, writing, consultation of grammar sites | It's a practical and easy tool, though not always so reliable as it seems | Both if this means using also YouTube videos, movies for practising listening, but I usually get bored without a human counterpart | $\left\lvert\, \begin{aligned} & \text { Further way of practicing, } \\ & \text { above all informal register }\end{aligned}\right.$ | would have also chosen:'Writing short texts to have total control of my grammar and my production' In order to increase one of the most communicative means in terms of register, vocabulary to complete my knowledge with something different from what is used in schools and universities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28 | My smartphone and my laptop | Dictionaries, videos and music | Pons (a bilingual dictionary of German/Italian) and WordReference dictionary of English) | Dictionaries, listening to music and watching videos in the FL | Because you can access online dictionaries and watch almost everything in the FL | Because you can interact with other people and enhance your communicative skills in the <br> FL | Useful as it represents a way to use the FL every day | I would create activities based on simple games so as to increase the motivation in learning |
| 29 | Smartphone, Laptop, Tablet | Texting, Translating, Conducting research | Reverso, Duolingo, Anki, BaBla | Memory games with flashcards, translation apps, watching videos | It is more immediate to understand a word or concepti if it is displayed on a everyday object such as s smartphone. Moreover, technology is more interactive than a book. | It is not sufficient to attend online courses to attain a see technology as an incentive to boost and strengthen the learning process already happening in the classroom | Interested, since it is better to communicate with a "true speaker" from time to time in order to keep up with the informal register and neologisms | Creating a "word of the day" section. Such an option would expand learners' vocabulary little by little by teaching them a new word every day. |
| 30 | Paint | $\begin{aligned} & \text { Yes } \\ & \text { yes } \end{aligned}$ | Dictionair Italy-Horse | Becos ai Non conosco de inglis | Francesco Poncia | Perche ghe ze Poncia | ${ }^{\text {Fp }}$ | Play football |
| 31 | Smartphone, computer | 1. Guardare video online per esercitare la comprensione 2. Usare dizionari mobolingue o bilingue online per controllare la traduzione di alcune parole e il loro 3. Stilizzo suparicarare slide o allo studio materiali di | Wordreference Ponn Pizionario monolingue di tedesco | Using dictionaries Watching videos and listening to music <br> Checking syntactic structures I'm not sure of | Because I can check immediately on it if I have some doubts. It's a kind of immediate help. | $\begin{aligned} & \text { fecause l can speak face to } \\ & \text { face with my mates, meet } \\ & \text { new people and share real } \\ & \text { life situations with other } \\ & \text { students. } \end{aligned}$ |  | I would suggest real dialogues with mother tongue epeople abut everyday topics but also in topics which require a highel linguistic compete and capacity of reasoning. |
| 32 | Phone, tablet, laptop | Breaks, launch, evening | Googletranslate | Instagram, news, music | It can help you | Online is easier, but traditional is better | Good | Live chat |
| 33 | Laptop | Watching videos in foreign languages, app ike duolingo or Babel to learn the anguage and TalkTalk for conversations in foreign languages | Duolingo | Duolingo, talk talk and videos | We use smartphones every day and they are extremely accessible they are extremely accessible | I like face-to-face interactions and if I have an actual teacher I feel more stimulated to go to the course and study the language | I have used that before and it worked well for re in some cases. However it's difficilt to find someone interesting to tadk to and who can conversate in a nice fluid way | It would be good to maybe synthesise a long story into a short one to practice the apability of creating new sentences and show text compreehension |
| 34 | Laptop, iPa, smartphone | Research for work (I teach English)/university, looking up for words/expressions on the internet whenever I need to check something out, writing texts/emails to students, friends etc | Wordreference | Watching videos, reading articles, using dictionaries (all in the FL) | gives You access to the internet, lots of materials available, you can communicate with people | In traditional classrooms for human interaction, online you can do individual work with authentic material |  | It would be nice to have an app that exploits authentic materials and helps you understand the content working on the language. It would also be nice to have an app that can correct the way you write according to the genre of the text, suggesting collocations, idioms, formal expressions etc |


| ${ }^{35}$ | Laptop, Tablet, smartphone | Consulting Online dictionary, searching online for academic papers written in the language of study, reading books in foreign language of study. guage of study. | Dictionaries | Reading, looking at language learning websites (british council or bbc) | It is faster than paper dictionaries and you can solve your doubts by looking online at websites | \|t's more engaging | $\begin{aligned} & \text { I would feel Ok. .it's a good } \\ & \text { way to learn new things } \end{aligned}$ | I read a lot and search for.new words and sentences on Google or online dictionaries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{36}$ | PC, Smartphone, Tablet | Everytime I have to look up for a new word use online dictionaries. I also use my PC or mobile phone to search video in order to improve my pronunciation skills or to follow pages on social network such as Instagram or Facebook which allow me to learn more vocaboulary. |  | Learning new vocaboulary through online pages, listening to music in the FL by searching the lyrics of the songs, whatching video in the original language | $\begin{array}{\|l\|} \hline \text { t is easy (in most of the cases), } \\ \text { practica, fast. Moreover, oou can share } \\ \text { materials with classmates and } \\ \text { colleagues in efficient ways. } \end{array}$ | Ithink that tecnological devices are innovative and efficient. Moreover, they allow students to learn interactively, to share materials quickly, to feel more motivated. At the same time believe in REAL interaction: you learn foreign languages to communicate with people made of flesh, of a brain and of emotions, no with robots or through screens that sometimes are filter and create An artificial sort of world. | $\begin{aligned} & \text { Sometimes I feel imbarassed } \\ & \text { because need time to find the } \\ & \text { right Word to say or write a } \\ & \text { message in an efficient way. } \end{aligned}$ | I follow some pages in Facebook concerning news from all over the world These pages are interesting from the perspective of the topics which are treated and it is a Good way to learn language and structure. |
| 37 | Computer, mobile phone | Watching film V.O., reading articles in foreign newspapers | Wordreference, Larousse, Reverso are very useful to develop my metalinguistic competence and my vocabulary | Using dictionaries, watching videos and reading articles | Because it's easy to use and it's a potential good resource | Because it's fondamenta the interaction with the teachers and the classmates | Alienating | Quiz because it's a funny activity in which people can get involved |
| 38 | Computer and smartphone | When I'm studying English and searching for some lexicon | Duolingo and babbel, because they are pretty useful | Texting with some friends, watching film in English and using babbel or others | Because even if you use it for studying, there will always be some distraction | Both ways are useful | It will be ok | There's nothing more |
| 39 | Phone, IPad, Computer | Librar, Evening | Reverdi best online dictionary | Dictionary | Pratice | 2 different goals | Good because it means practicing | Debates/discussion |
| 40 | Phone, computer, tablet | Translation, info searching, video watching |  | Translation, info searching, video watching | $\begin{aligned} & \text { Everything you have is an opportunity } \\ & \text { to improve } \end{aligned}$ |  | Good. It's exercise | Something with translation |
| ${ }^{41}$ | Pr, phone | While studying, translating and when I watch videos | Reverso context (really accurate, gives a lot of possible translations) | Videos, translation, reading | It gives support when needed | Traditional classrooms bring other aspects in the learning process by just having the real person in front of you. Online classes are just more suitable to everybody schedule | It hink they are a really good <br> way to exercise without feeling <br> judged by the professor | Texting/talking with natives of the fl I'm studying so that I can improve both my skills |
| 42 | laptop, mobile | translations and pronouciation | Reverss, Duolinguo, Word Reference | articles and texts in my target language | You can find examples online, follow dedicated coursed or use dictionaries | the kind of things you can learn is different but very useful in both ways | $\begin{aligned} & \text { I totally approve of it, I usually } \\ & \text { do it with ancouple of friends } \\ & \text { of mine actually } \end{aligned}$ | I think the speaking skills is something which apps like that usually lack...they should focus more on that |
| ${ }^{43}$ | i-phone, computer, ipad | Translate songs, email | Google traduttore app | Read articles and news in english | It's always with me | $\begin{aligned} & \text { Because i can study } \\ & \text { everywhere } \end{aligned}$ | Well, i could talk about it mor | Creation of a social network, like whatsapp, where we are obliged to select a language to chat with other people, and when we write words or phrases, appear counseling and referrals. |


| 44 | Smartphone, laptop | Reading news and articles, watching videos in the FLs, using online dictionaries | Memrise, mainly to learn/review vocabulary | Language learning apps, dictionaries, videos | I see it as a useful additional tool to a "traditional" language course | I think a traditional classroom is still necessary for some aspects like guidance, feedback and the possibility to learn and communicate with a group of peers | \|t think i would be useful | I would mainly use it for what I already <br> do |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45 | laptop, smartphone | translations; writing papers; listening tasks | Reverso context because it is very well developed and easy to use | translation purposes, error | Because it is easy access and it provides every tool you might need while studying. |  | I think that it could help us improve speaking skills. | have nothing to propose. |
| ${ }^{46}$ | smartphone and laptop only | looking up word I don't know, consulting online dictionaries for collocations and for phonological transcriptions while studying watching movies in English, istening to music in other languages | WordReference, Lingue, Ted Talk | Whatching movies, reading newspapers online, consulting online dictionaries | It allows vou to consult sources in real time and wherever you are | Both ways have their pros and cons and I think they are complementary | I feel good because I find it entertaining and useful | would like to chose to take short answe tests after listening to audio medias so that I can verify if I have understood everything |
| 47 | Laptop and iPad, Idon't have a 3rd | My boyfriend is American so I always talk to him in English through phone or others, I work with Americans so I use computers and send emails, and I watch movies in Spanish to improve my speaking and accent |  | Netfixix and you tube videos | You can search videos and other things quicker. Plus let's not forget about memes in foreign languages |  | I'd like it, it's a way to solidify some basics vocabulary | They're enough to be honest. |
| 48 | PC and smartphone | I use ICT in class or at home mainly in order to take or transcribe notes. The use of FL is confined mainly in my free time as I read materials assigned by the professors, I read novels or articles of my interest or watch some video. |  | Reading articles, e-books or watching videos. | It is a way to improve your FL without the stress caused by the scholastic environment. | ${ }^{\text {I think traditional classes }}$ since they provide a form of support one cannot find online. Online one is exposed to a great deal of material that sometimes is not so well structure logically ordered. Learning a FL online is something that should go along with the kind of support a real person -flesh and bonesuch as a teacher can offer | I would feel embarassed maybe because I'm aware that my speaking skills are rustier than my written ones. | Having classes composed by a very little number of students and dedicated only to improvement of the oral skill. |
| 49 | Laptop, smartphone, --- | Videos in FLs, Dictionnaries for small researches, texts from the web | Pons.de, Leo.org, wordreference | Watch Youtube-videos | $\begin{aligned} & \text { It can give you access to the real } \\ & \text { spoken language } \end{aligned}$ | Both are essential. As for <br> classes, they need to be <br> small enough, if too big <br> they can be even <br> disadvantageous. | If they have the same mother tongue as I have, then no | Through Internet I can already do anything \| want to |
| 50 | Smartphone, tablet, laptop. | I sometimes use "Wordreference" when I need to look up for new vocabulary. | Wordreference when I need help to find a word I cannot remember. | Texting my not-talaian friends | Because I have access to all the knowledge in the world. | Because I am lazy and I do not practice a language unless thave a class to attend. | I do not feel the need to do so. I text with my friends, I send emails to my peers. I do no want to send texts to my pee | I have videocalls and I send texts and emails in English on a daily basis. |
| 51 | PC, smartphone, tv | While doing homework, free time and while helping children to learn English | Duolingo to learn new languages, word reference, Leo.org | Doing online exercises, listening to native speakers on YouTube, using the online dictionary | Because you get to know a lot more if you use your smartphone and it is also very easy and fast to find what you want | The use of technology to learn a FL is definitely compulsory but the presence of a teacher in the classroom is also very important | I would love to, because Icould keep on practising every day and I could get to know more about the culture of the FL |  |


| 52 | Smartphone, computer and tablet | Cerco parole sul dizionario online, scarico liste di vocaboli da imparare, guardo video in lingua originale | Word reference come dizionario e Pinterest per scaricare collocations e idioms | \|Vedi isposta pg. 1 | $\begin{aligned} & \text { Perché è comodo e si unisce l'utile al } \\ & \text { dietevevole } \end{aligned}$ | $\|$Perché credo che sia <br> necessaria una sorta di <br> equilibrio tra i due | $\begin{aligned} & \text { Penso che potrebbe essere una } \\ & \text { cosa molto bella per sonoscere } \\ & \text { nuove persone, ma anche per } \\ & \text { fare esercizio } \end{aligned}$ | Di solito uso Word Reference perché mi è stata consigliata dai miei insegnanti e si è rivelata un'app che risponde alle mie esigenze e Pinterest perché offre tantissime possibilità di imparare in modo differente |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 53 | Laptop, elllphone | When i don't know a word |  | Follow American/english (in my case) instagram account, having the settings in english, read or watch videos in the FL | It's a really rapid way to know something | Because the teachers are <br> still an inportant figures, <br> they can clarify something <br> that online nobody cares <br> about you | Interesting and a good way to improve the language | Something related to the pronunciation because it's always underestimated in classes |
| 54 | Laptop, tablet, smartphone | Messages, reading posts and stories on social media | Wordreference, thesaurus | Looking up words in online dictionaries, reading posts, watching videos | Because I want to understand foreign pages on social media and videos on YouTube | Because both are useful | 1 like that because it's spontaneous | I'd like the app to automatically show me synonyms of nouns and verbs |
| 55 | iPad computer smartphone | Words meaning research formazione translation, Watching videos, listening to audio as training | Duolingo to learn on my own some new languages which I haven't studied before | Looking for new Words, information, Reading articles | You can easily have access to a loro of material and know and speak with native people | They two different experiences, differently useful and effective | Good. It would be less formal and pleasant | I can't think about anything else at the moment actually.... |
| 56 | Computer, smartphone, tablet | study, work, fun | WordReference, verv good for vocabulary | Dictionary, Facebook, duo lingo | Because it's an immediate technology | Because one thing completes the other | I would feel good because it's always important to practice a language in all possible ways | Record my voice to hear how an entire speech in the FL sounds like when I listen to it |
| 57 | Laptop | Communicate with my foreign friends, study |  | Chatting | Practice | like personal conract | Fine, im used to | I chat with my friends |
| 58 | Computer, phone | Fare traduzioni, guardare video e ascoltare musica, registrare audio delle lezioni |  | Usarei idizionari online, traduttori online, guardare video | Si perché si ha accesso a una fonte di verifica molto più ampia e affidabile (se si è in grado di cercare le fonti) del solo dizionario bilingue. | Siè molto più concentrati allappprendimento, si i a la possibilita di fare esercizi e avere le correzioni, fare domande | Credo che potrei cavarmela | Se si tratta di lingue minori, aprire un piccolo spiraglio sulla cultura odierna di quel paese... ad esempio musica e film in modo da consentire a una persona che sta studiando quella lingua di entrare in contatto con la realtà del paese |
| 59 | pc, smartphone | Depends |  | dictionary, ted talks | It can help | They fullifil eachother | It would be ok, because there is nothing wrong in it | Videos, Films, music because that's the best way to learn a foreign language; everyday vocabulary |
| 60 | Google | Study | Youtube because there are really good teachers teachers | Learning new words and grammar | Because i can learn new vocabulary | Both are important | It's good but sometimes <br> writing with foreign students it <br> is not so <br> gelpfull in the | Extra class for speaking with native speaker |
| 61 | pc, books, copybook | research, information about courses, | wordreference, duolinguo. They are easy and fast | translations, research, general info | it connects me easily to the Net | because both are interesting ways of learning | something normal I have done <br> for years | I would like to be instantly corrected in a precise way |

