

# The Impact of Smartphones on the Autonomy of Teenagers Studying French as a Second Language

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## Abstract

This article explores the use of smartphones to develop teenagers autonomy in the learning of french as second language. The students participated during a year, along with French native learners, on a collaborative blog, accessed through their own devices. The use of mobile phones in the scholar environment is rather controversial, but many teachers have chosen these technologies to bring to their students innovative ways of teaching. The results show the potential of mobile learning in the teaching of languages and their significance for the autonomy of the adolescents.

**Keywords:** Smartphones, language learning, autonomy, French Second Language

**Título:** Impacto del uso del móvil en la autonomía del alumnado adolescente en un aula de francés segunda lengua extranjera.

## Resumen

El artículo explora el uso de los smartphones en el desarrollo de la autonomía de alumnos adolescentes en una clase de francés segunda lengua. Los alumnos participaron durante un año con alumnos franceses en un blog colaborativo a través de sus propios dispositivos. A pesar de que el uso de los teléfonos móviles en el entorno escolar genera polémica, algunos docentes han escogido esta tecnología para llevar a cabo prácticas innovadoras en las aulas. Los resultados obtenidos muestran el potencial del aprendizaje móvil en la enseñanza de idiomas y su importancia en el desarrollo de la autonomía de los adolescentes.

**Palabras clave:** Smartphones, aprendizaje de lenguas, autonomía, francés segunda lengua extranjera.

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## 1. Introduction

According to the National Institute for Statistics (INE)<sup>46</sup>, the proportion in the use of Information and Communication Technologies (ICT) in child population (aged 10-15) is, in general, very high. The use of computers is almost universal (93.8%), and 92% of them use the Internet. Moreover, 63.5% of minors and 90.3% of adolescents aged 15 own a mobile phone. This percentage, in the case of the IES Pablo Neruda of Leganes, where the research is carried out, is 100% among students of 12-13 who are studying FFL. On the other hand, and according to the Sub-Directorate General for Statistics and Studies of the Ministry of Education, Culture and Sport (Subdirección General de Estadística y Estudios del Ministerio de Educación, Cultura y Deporte), in 2013-14 the number students per PC was 5.3 in the Madrid region (in public High schools), one of the worst ratios throughout the national territory.

Despite the high number of secondary students owning a smartphone, and the poor technological facilities in Madrid schools, teachers hesitate in making their pupils bring their own devices and in using them for classroom activities. A consequently lack of research in this field makes it difficult for innovative teachers to benefit from other educators experiences.

Moreover, the few existing studies have pointed out more the disadvantages of the smartphones' use, such as the disruption of the class or the cyberbullying attacks to peers, than the pedagogical benefits of these devices.

To shed light on the issue, the present study reviews the literature on autonomy and Mobile Assisted Language Learning (MALL) and the link between these two concepts. Its goals are, to further examine the smartphone use in the FFL class as a powerful tool to encourage students to a more responsible learning, to highlight issues requiring more analysis and to suggest useful methodologies for future research.

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<sup>46</sup> Instituto Nacional de Estadística

Specifically, the aims are to (i) reflect and design tasks that lead to achieving certain objectives of the curriculum, by using the mobile phone in class and out of class, with particular emphasis on the work of oral skills, fundamentally speaking; (ii) check whether these activities lead to an increase in the level of autonomy in student learning; (iii) give practical evidence of the use of mobiles in Foreign Language Learning so as to encourage other secondary teachers in the use of the smartphone.

## 2. Theoretical background

### 2.1 Autonomy and Learning

Even if autonomy has been introduced into language teaching by moral and political philosophy sciences, it is actually psychology and educational theory, which are directly related to it (Benson, 2009). The Swiss psychologist Piaget stated "a learned truth isn't more than a truth, while the whole truth must be reconquered, rebuilt, or rediscovered by the student" (1950:35). The learner, according to Piaget, needs to investigate by himself his understanding in order to reach a real knowledge of what he is learning. The author highlights the importance of the autonomy in the field of education. In this sense, he establishes that only by action can the student learn. If he receives the explanation as an absolute truth, without considering the *why*, he will never get to understand truly teacher's explanations. According to the same author, this educational principle rests in an indisputable psychological reality: "all the contemporary psychology teaches us that intelligence comes from the action" (*ibid.*). Children develop autonomy, both in the moral sphere and the intellectual one, and the purpose of education should be the development of autonomy (Piaget, 1948).

Despite basing his theory of active education in the field of science, Piaget referred also to the language learning field and expressed the need to go beyond memorising lists of vocabulary or grammatical analysis of the language, ensuring that: "it is necessary to learn the language in the most direct way, and reflect on it, to finally deduce the grammar"(Piaget, 1965b:44).

There is, nevertheless, a difficulty to find a consensus in the definition of autonomy. Holec (1981:3) proposes that "autonomy is the ability to take charge of one's own learning". Thirty years later, Holec (2009) reflected on the concept of autonomy in foreign language learning and at the lack of conceptual unity, which for this author, has been an impediment for educators to research about learning and autonomy.

Little (1990:7) gave a more extensive and precise definition: "Learner autonomy is essentially a matter of the learner's psychological relation to the process and content of learning". We recognise autonomy in a wide variety of behaviours, such as capacity for detachment, critical reflection, decision-making, and independent action".

As confirmed by Benson (2009): "The point is then, that learning by yourself is not the same thing as having the capacity to learn by yourself". Benson claims later

To me autonomy is about people taking more control over their lives - individually and collectively. Autonomy in learning is about people taking more control over their learning in classrooms and outside them and autonomy in language learning about people taking more control over the purposes for which they learn languages and the ways in which they learn them. (2013:1)

Taking control of their own learning has implications for the teaching-learning process: according to Navarro (2005), a greater autonomy affects the student at the practical, psychological and educational levels. Psychological scope is essential for the aim of this study. In a traditional classroom, where the apprentice is driven at all times, both by teacher and books, he might assume that acquiring the transferred knowledge (in order to succeed in an exam), is his single mission at school.

Greater autonomy may provide the apprentice of the needed support so as to learn to think and learn how to learn, and leads the student to a better knowledge of himself. In terms of education, the development of autonomy will largely depend on the diversity of learners. When individual differences within the classroom are taken into account, students are transformed. Indeed, if the students learn at their own pace and with materials that are closest to their way of learning, their role as learners in the classroom changes, and so does the educator's. Many studies have focused on the significance of dealing with different styles of learning (see review in (Brown & Burke, 1987). These authors, establish the importance of taking into account individual differences when teaching a language.

In terms of the role of the teacher, it has also been emphasized in the existing literature on the benefits to teach students to be autonomous. For Dam (2000:18) the teacher should help students to understand better how they learn:

Learners do not necessarily learn what we believe ourselves to be teaching...What we can do is give our learners an awareness of how they think and how they learn - an awareness which hopefully will help them come to an understanding of themselves and thus increase their self-esteem.

If the aim is to help students understand how they learn and how they think, it is necessary to teach different learning strategies and thus, help them finding the best way to learn. In addition, teacher must help students planning activities. This brings with it a cooperation between the different actors of the teaching-learning process, since when basis for collaboration between students and teacher is set, students understand what is expected from them. Autonomous learning allows a constructive interaction of the actors of the learning process and encourages teachers and students to learn from one another.

Ultimately, in his new role of facilitator of learning, the teacher empowers learner, encouraging him to make personal decisions about his learning and allowing him to participate in the process of teaching and learning along with the teacher. They, then, participate in the negotiation of identification of learner's needs and definition of classroom activities and objectives.

Nunan (1996) established autonomous classroom features: (i) Taking into account the differences in the learning styles of the learners; (ii) using the target language in a productive way, and not simply reproducing models; (iii) selecting content, learning tasks and self-evaluation; (iv) using the language outside the classroom ; (v) encouraging them to find linguistic data and learning tasks; (vi) encouraging them to self-evaluate.

## 2.2 **Mobile Assisted Language Learning (MALL)**

According to Naismith and Sharples (2004), the idea of mobility is very close to the nature of learning. The relationship that exists between the two concepts -mobility and learning- has not arisen as a result of technology: it existed and has been favoured by it. Knowledge is contextual information, and therefore, knowledge moves there where information is (Goodyear, 2000).

According to Kukulska-Hulme and Shield (2008) mobile learning refers to learning that takes place through handheld facilities, available anywhere-anytime. Of all devices, Smartphone is the most popular and the cheapest one (Miangah & Nezarat, 2012).

Smartphones characteristics have expanded exponentially. Chinnery confirmed they include virtually all applications available for a PC or a laptop (2006). Compared to the benefits offered by other mobile devices, such as iPod or PDA, mobile phone has the same utilities (including even some more), and no observable differences in quality, even in multimedia applications. New models have a much larger screen size (5''5 or 6'') and the new commercial name "phablet" gives idea of their hybrid format: cell phones in a tablet size.

MALL differs to CALL, Computer Assisted Language Learning, (Kukulska-Hulme & Shield, 2008) in that MALL uses personal and portable devices that give rise to new possibilities of learning. The learning of a foreign language through these devices allows spontaneous and continuous access. In addition, the learning of languages through mobile devices adds a number of features that benefit learning. MALL gives way to a spontaneous, informal, personalized and ubiquitous learning.

Ubiquity focuses on how to take advantage of the huge amount of information available to everyone and the possibility of having access to it anytime, anywhere. "The greatest thing about this phenomenon is the possibility of learning in any situation or context, learning in, with, and from the environment in a restricted and broad sense" (Vázquez-Cano & Sevillano, 2015:18).

Internet connection allows students an immediate access to materials and regain access to it once they are no longer in class. Proliferation of mobile technologies has eliminated part of the learning barriers that existed inside and outside the classroom and has contributed to enrich the vocabulary and the broadening of cultural content (Chinnery, 2006). Unesco, in its report on the future of mobile learning (Winters, Niall and Sharples, 2013), wondered whether the educational community was aware of the enormous potential of mobile technologies and their ability to build new bridges between the school environment, activity out of school and home environment.

MALL may lead, in addition, to a casual or incidental learning (Kukulka-Hulme & Shield, 2008), one of the pillars of the authentic learning, and which refers to the learning that occurs of unintentional errors or unforeseen incidents (Ogata & Yano, 2003). Incidental learning refers to learning experiences that occur when the learner did not have any previous intention of learning something out of that experience; only subsequently does she or he become aware that some learning has taken place. Thus, knowledge is then, unintentional, but conscious.

Incidental learning which confronts the student with a huge number of authentic materials, relevant information or even with native speakers interaction, is a source of motivation. Ogata & Yano (2003) established that when, classroom activities deal with real world, i.e. containing authentic materials, 'students receive great academic delights'. In addition, according to the same authors, knowledge happens when authentic activities and relevant social interactions are taken into account. Student adopts a pro active stance, shedding his traditional role as simple receiver of information.

Encouragement of collaborative learning with native speakers is a main issue in mLearning<sup>47</sup>. CALL allows this type of learning as well, however, smartphones allow a forthwith collaboration in a much easier way.

Driscoll & Vergara, (1997: 91) stated that "true collaborative learning, not only requires working together, but cooperate in achieving a goal that cannot be achieved individually". And in this sense, according to Valarmathi (2011), mobile devices encourage learning commitment of the student.

As for the teacher, if mobile promotes collaborative learning, the role of the teacher will no longer be the mere purveyor of information, becoming a moderator or facilitator of the learning process (Valarmathi, 2011).

Another advantage in the use of mobile devices, is the individualization of teaching and the possibility offered to adapt to student's individual pace (van den Hoven, 1999). Individualization is not an easy goal to achieve. Cooper (2015) establishes that individual differences can be divided into four categories: skills, personality, mood and motivation. In the context of a traditional classroom, with a higher ratio of students, it is difficult to take these factors into account and create a learning space open to individuality. The use of mobile devices can allow large classes to replicate conditions for the individualization of teaching. Inside the classroom, this feature helps teachers to adapt the content to different levels and thus optimizes the use of time. Students who are more advanced can access material according to their level, while those who have a lower level can focus on contents they consider more difficult, avoiding the feeling of frustration. This also entails a learning environment closer to constructivism, where students are most active and teachers become facilitators. A major conclusion of the I Symposium on Mobile Learning (2014) suggested that mobile technologies constitute key tools allowing a personalization of learning.

Still, mLearning is not the panacea. The only use of mobile devices, such as smartphones, does not bring with it better educational methodologies. Kukulka-Hulme & Shield (2008) make reference to two types of studies that develop educational projects with MALL. Those focusing on creating materials and giving rise to a more formal learning, in which the relationship teacher-students is still the traditional one, and a second type of projects that concentrate on communication and interaction among students. The latter allow students to define their own learning and providing other students with additional authentic material.

A research on smartphones and autonomy in Japan carried out by Leis, Tohei and Cooke (2015) concluded that students who had the opportunity to use their smartphones during the class studied more in their free time and increased their autonomy, becoming more responsible for their own learning. In addition they looked for ways to improve their habits of study and their level of English.

### 3. Method

#### 3.1 Action Research

The methodology chosen for this project is action-research. The ultimate goal of this research is to try to improve educational practice in terms of the teaching and learning of languages, especially, French Foreign Language (FFL). As Nunan states,

In many cases practitioners are less concerned with generating generalizable knowledge than with solving pressing problems associated with their own particular workplace. While such (action research) activities therefore fulfil a professional

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<sup>47</sup> Mobile Learning

development function, I still believe that if they address questions of interest to other practitioners, if they generate data, and if they contain analysis and interpretation, then they qualify as research. (1992: 13)

Action research, by nature, focuses on the study and understanding of phenomena occurring in the same frame of study. The teacher is both researcher and teacher, interacting in the process. He/she wants to know why these phenomena are happening and find possible solutions to enhance the teaching experience.

Action research can be understood as a circular process, a never-ending method, where educators are constantly rethinking their work, always trying to improve it, relaunching the mechanism after each report.

### 3.2 Educational reality

The current research is conducted in the IES (High School) Pablo Neruda, in Leganes, a public secondary school, in a south town of Madrid region, where population is middle class. The school integrates students with motor and psychic disabilities. The total number students attending the school is 720, 399 of which are studying at the compulsory secondary education.

### 3.3 Identification of the problem

The teacher-researcher works there since 2013-2014 and observed a low performance of students in the initial tests of oral French skills.

Moreover, daily observation of these classes, highlighted a non-autonomous set of routines, and as a result, a learner's acceptance of his passive role in the classroom, along with a believing that the main role during the lessons, had to be assumed by the teacher.

At the end of the year previous to this study (2012-13), 16 students (out of 78) abandoned the subject: more than a 20% of students.

### 3.4 Sample

#### *Identification of the Group*

62 students, aged 13-14 years old and belonging to 4 different classes participated in the research. The 4 classes had a good students/teacher ratio (2 A: 17; 2B: 15; 2C: 18; 2D:12). They attended French classes two days a week, in 50 minutes sessions. These students chose French as an optional subject, instead of a more artistic one (Image).

#### *Classroom arrangement*

French classroom is arranged in an "U" shape, without computers, but with digital display. This organisation (instead of the traditional one, with tables and chairs face to the teacher and blackboard) is very flexible when group work is needed. It allows students to work together or individually, in pairs or larger groups, permitting a smoother communication.

#### *The project, aims, organisation*

The project with the 62 students consisted in preparing a real exchange with French High school. Spanish students will have to communicate via smartphone with their peers, in order to get to know each other. In Year 1, took place the mobile exchange. The common platform was a blog, in which all the students, French and Spanish, had to sign up as authors. They will have to upload the oral activities that were agreed in class (by Spanish students), and besides, all other audio-visual posts, mainly pictures, or comments.

#### *Aims of the project*

1. To make the acquaintance of other students, identifying with which of them they have a higher degree of affinity
2. To hold conversations at a beginner level, on basics, such as personal data, tastes and hobbies, family and environment
3. To search for online materials to perform the tasks agreed in the project
4. To control, within the classroom, mobile use only for the purposes established by teacher and students
5. To send videos and photos to the project blog via mobile

6. To work in groups or in pairs, depending on the tasks

*Organisation of the project sessions*

*Table 1: Sequencing the project activities*

<b>Activities and sessions</b>	<b>Goals</b>	<b>Dates</b>	<b>Groups</b>	<b>Assessment</b>
<b>session 0: Initial test</b>	<i>To assess student's level in speaking skills</i>	<i>September</i>	<i>Individual</i>	<i>Test on oral skills</i>
<b>sessions 1-2: Introduction</b>	<i>To evaluate the knowledge of the students concerning the project. To agree a behaviour contract concerning the use of smartphones in the class</i>	<i>November</i>	<i>Class</i>	<i>Observation: questions</i>
<b>session 3: Initial questionnaire</b>	<i>To know the use of personal mobile devices</i>	<i>November</i>	<i>Individual</i>	<i>Initial survey</i>
<b>session 4: Signing in the blog</b>	<i>To learn how to contribute with audio-visual posts to the collaborative blog</i>	<i>November-December</i>	<i>Groups of two</i>	<i>Observation</i>
<b>sessions 5-6: Firsts posts</b>	<i>To search for authentic materials so as to introduce him/herself and others</i>	<i>December-January</i>	<i>Groups</i>	<i>Oral Production</i>
<b>sessions 7-12: Video recordings</b>	<i>To learn how to use mobile phones so as to produce videos and upload them to the blog</i>	<i>January-February</i>	<i>Groups</i>	<i>Evaluation rubric</i>
<b>sessions 13-14: Family introduction</b>	<i>To search for authentic materials to introduce their own family</i>	<i>February</i>	<i>Individually or groups</i>	<i>Class observation</i>
<b>session 15: Video recording/ uploading</b>	<i>To learn how to contribute with audio-visual posts to the collaborative blog</i>	<i>March</i>	<i>Individually</i>	<i>Assessment on the family introduction through evaluation rubric</i>
<b>session 16: Assessment</b>	<i>To know if the students oral skills had improved</i>	<i>April</i>	<i>Individually</i>	<i>Test on oral skills</i>
<b>session 17: Questionnaire on autonomy</b>	<i>To check whether the students had taken some control over their learning practices</i>	<i>May</i>	<i>Individually</i>	<i>Survey on the learner's autonomy</i>

3.5 Research questions

(QR1) Does the use of a smartphone relates to the language learner autonomy?

(QR2) Is there an improvement of oral skills when the smartphone is used for mblogging collaboration?

(QR3) Are learners more motivated towards FFL, when using their smartphones?

## 4. Instruments

### 4.1 Initial questionnaire

This questionnaire aimed to confirm the ownership of a smartphone by learners, ensuring that all students owned one with which to perform the tasks of the project; to find out about the initial motivation to the using of these devices in class, and to make them reflect on the smartphone as an educational tool.

The questionnaire was prepared with 13 items, meeting the 13-14 requirements, and based on a previous questionnaire by Morrill (2009). Online access provided them the opportunity to do it through their phones, in a session organised established for this purpose.

In the first part of the questionnaire we presented the title and the instructions to answer it. In the second part were the specific questions:

- Questions 1 to 3 dealt with the availability of smartphones among students.
- Questions 4, 5 and 10: focused on the perception that students had of mobile educational uses.
- Question 6: took note of their previous experience regarding the use of a blog.
- Questions 7, 8, 9, 11, 12 and 13 served to gain an insight into the motivation of students towards smartphone assisted language learning and towards the collaborative project with French high school teenagers.

A Likert scale was used for 4 of the questions. Likert-type scales use fixed choice response formats and measure attitudes or opinions. The present questionnaire established a scale of 1 to 5 possible responses to facilitate positioning of the students. 8 questions were multiple choice where learners had to mark one or several options. And an open-ended question, aiming at letting students think about the utility of smartphones to learn a language.

### 4.2 Final questionnaire on student's autonomy

This questionnaire was adapted from Wenden's (1991) and reworked with Nunan's conclusions (1996). It was carried out at the end of the course. Some specific questions on the French subject were introduced, as well as questions dealing with classroom activities and methodology, so that students could assess in a more precise way over their specific process of learning during the project. The questions were all closed-ended and learners had to respond in a Likert's scale.

### 4.3 Direct observation

Direct observation permitted the teacher to observe students while performing the tasks. The observation is essential, as it allows changing whatever is considered improvable. The objective of direct observation was, primarily, to determine the possible problems that aroused from the use of mobile phones in class and learn, from the inside, how the students perceive their own learning.

It was conducted in Penzu mobile app. Each session was registered in the mobile and rewritten later on, on the computer.

Journal entries had to do mostly with the perception of the teacher about the progress of the project, on the use of mobile phones in class, and the incidents during the sessions.

## 5. Results and Discussion

### 5.1 Initial survey

Regarding the use of mobile phone, 100% of the learners owned one; 30% a Samsung Galaxy 3 or a latest version, with a 4.8 inches screen or higher. Almost 20% answered they use mobiles to study, among other uses. The other options they could choose were "listening to music", "WhatsApp", "Play", "Connect" and "Call" and were chosen by 90% of students. Smartphones, as a study device, was seen "useful" or "very useful" for almost 70% of students.

As for the initial assessment of how mobile can help in classroom activities, 85% were motivated by its future use. 35% even believed that it will help them to improve their results. This leads us to believe that more than one third of students believe that there is a direct and positive relationship between the use of mobile and qualifications obtained in the end, stating that their motivation is even higher.

Regarding the previous experience of the students in the use of a blog, it is curious that most of them had never written in a blog before, neither in class or with friends (65%), but almost  $\frac{3}{4}$  of the class saw the blog as a positive activity.

Almost  $\frac{2}{3}$  believed they will learn more than with books and notebooks (such as in a traditional class).

The use of the blog to meet their French partners was preferred to the other options, except the possibility of meeting them personally.

Regarding motivation to work, the answers were almost equally distributed among the 5 options, being the neutral answer (3 in Likert scale) the most chosen.

The final open-ended question allowed them to think of the possible uses of the smartphone during the class: 50 out of 62 students referred in some way to the search for vocabulary or expressions. Some of these responses are:

*"(With the smartphone) I can look up the meaning of words I do not understand or listen to the pronunciation. It can also help me to find information and learn more about the language "*

*"To find things in class, for example, the meaning of certain words."*

*"Because I think I can quickly see the translation of the words I do not know."*

*"I think mobile helps us to understand many of the things we learn in class. In mathematics, in case we don't have a calculator, we can use the phone application. "*

*"You can connect to an online dictionary or download it using an application. You can also download applications to learn languages or watch videos that teach you languages."*

*"I don't know how can I use the smartphone, apart from the dictionary"*

*"You can look in some sites the meaning of a word, expression, etc..."*

*"I do not think mobile help in anything, because you can be in the WhatsApp while you're in class."*

## 5.2 Final questionnaire on autonomy

As for the results of this questionnaire, we present below, the learners' answers:

*Table 2: Results of the questionnaire on Autonomy*

LIKERT scale (1: completely DISAGREE; 5: completely agree)	1	2	3	4	5
1. 1. If I find someone who speaks French, I can hardly speak in his language	6.3	28.6	42.9	20.6	1.6
2. I'd rather work in groups	0	4.8	9.5	38.1	47.6
3. I prefer to do the tasks we have decided as a class	4.8	15.9	30.2	22.2	27
4. I'd rather study French without a class book	3.2	1.6	15.9	32.8	55.6
5. I like using ICTs, especially my smartphone	0	4.8	22.2	28.6	44.4
6. It is really very difficult for me to look for the information I need using my mobile	20.6	28.6	30.2	15.9	4.8



7. I like to self-assess my activities	0	0	22.2	46	31.7
8. I like communicating with my French classmate using my cell phone	0	6.3	33.3	33.3	27
9. I don't think the behaviour contract is useful for a responsible use of smartphones in class	50.8	22.2	20.6	3.2	3.2
10. I think the personal and family introduction are really useful activities to get to know my French classmate	1.6	15.9	33.3	19	30.2
11. I'd rather find for myself the grammar rule and the meaning of words	1.6	11.1	31.7	38.1	17.5

We classified these results, taking into account Nunan's (1996) observations for autonomous learning.

#### Use of target language

Students are divided into those who find difficulties in speaking the language if they meet someone from another country, and those who find easy this interaction with native speakers. But the overall percentage of those who can hardly speak with a native is clearly higher. The perception that language is as a real communication tool has not yet been reached by most of the students.

On the other hand, direct communication via mobile with their French colleagues was very positive for 60% of the students.

In the use of the target language performed through cultural activities that took place during the year, the learners were clearly positioned in favour of such activities, as  $\frac{3}{4}$  consider them useful.

#### Groups

Most of the students preferred working in groups. We may consider, in the light of these results, that the project has helped them to be more responsible of their own learning. Groups were created by the students themselves, following their affinities, and this might have been incentive for completing the tasks.

#### Tasks agreement

Another aspect of autonomy, agreed tasks among all, was rated as "useful" and "very useful" by almost 50% of students. It may be important that the teacher organizes beforehand how he/she is going to deal with this and not leave it to improvisation.

The behaviour contract on the use of mobile in classroom was critical: using the mobile was not a unilateral decision of the teacher in the exercise of their activity, but students considered it essential for the project.

As for the two compulsory oral productions, 1/3 of the class does not know whether they were useful activities. We point out, that French partners didn't post their family presentation, so this could be the reason why our students didn't find it useful.

#### Learning strategies

Question 6 referred to the autonomous use of mobiles for the search of information. 1/3 of the class find it difficult to look for information by themselves, and would be more comfortable with a traditional lesson.

### Self-evaluation

This is another component of autonomous learning: according to the survey 80% of students like to self-assess.

### 5.3 Direct observation

Journal entries had to do mostly with the perception of the teacher about the progress of the project, on the use of mobile phones in class and the incidents that occurred, both technical or related to the behaviour contract.

#### *General circumstances regarding the use of mobile:*

- The teacher had to sign an authorization to some students for the parents to be sure the smartphone was going to be used with the teacher for class work.
- Some students had no data, and wifi centre network worked very slowly.
- Some did not have enough memory in their devices to install the blogger application or hangouts. In some cases, not enough memory to store videos.
- Some applications were not yet optimized for mobile.

#### *Technical problems:*

- Inexperience with some of the technological devices: despite being "digital natives", students do not control certain uses and seem to have troubles understanding some of the tools.
- They forgot the blog password, the email password.

#### *Incidents when contacting native speakers:*

- Some felt insecure when speaking French.
- Others preferred the use of English.

#### *Issues with groupings and spaces:*

- The use of different locations in the education centre to record videos (i.e. the playground), derived in a feeling of losing control of the class.

#### *Issues with the official curriculum of FFL*

- The timing to implement some parts of the curriculum was delayed.

### 5.4 Discussion

We present here some of the limitations of this study, as well as the practical implications.

- Pedagogical limitations

There is not an unanimous consensus in the use of smartphones for educational purposes. Using MALL in second language teaching must start from a well-conceived methodology for its application in language teaching.

In addition, most of the research conducted until 2008 in the field of MALL, was teacher-instructor model, and did not encourage communication between students.

Although since 2008 studies suggest MALL can allow better conditions for language learning, this will not necessary result of a more appropriate and efficient methodology of language teaching and learning.

It is assumed that students know how to use these technologies and how to take advantage of all the resources offered. We believe, however, that they are not yet aware of all the potential of the technology, and in particular smartphones, for their learning process.

One of the most important aspects of this research is to try to encourage autonomy in students. The concept of teaching and learning have evolved over the centuries, however educational practice remains broadly the same. Most teachers tend to see themselves in the centre of the teaching-learning process. As for students, they still think their learning process is based on listening to the teacher's explanations, while they take notes.

Autonomy is a long-way path. Teachers have to overcome their instructor role, and this might be a difficult decision as it implies a revolution in the methodology used until now. Learners must be aware of its benefits for the learning process and change their passive role in the classroom to a proactive one. If the two main actors are not convinced of this, MALL and specially, smartphones, will never be the solution.

- Theoretical implications

Our paper contributes to the existed literature on the use of smartphones in the secondary education, especially in language teaching and learning. So far, very few studies have focussed on that matter. It also tries to relate the concept of autonomy of learners with this new tool at school.

- Practical implications

We believe it is vital that French teachers (language teachers in general) in secondary education, realize the importance of a change in methodology in order to motivate students and improve outcomes in different skills.

- Limitations

This action research study mainly collected qualitative evidence on the potential of smartphones in a FFL class and with a relatively small sample. The impact of the these mobile technologies on autonomy and new methodologies should be further investigated via an experimental comparison study.

## 6. Conclusion

This study presents how the teaching of FFL to secondary students using smartphones in a communicative and collaborative set of activities, develops students' autonomy and communication skills. The outcomes from this study entrenched the study research questions and the literature review and confirm that the integration of mobile devices, especially, smartphones is, at least, to be rethink by secondary teachers.

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