



## A RESEARCH IN INNOVATION IN THE SECONDARY EDUCATION: MAKING USE OF VIRTUAL RESOURCES TO LEARN A LANGUAGE

María Luisa Renau Renau<sup>1</sup>

Universitat Jaume I,

Spain

### Abstract:

The present paper describes the research carried out in the subject of the *The University Master's Degree for Secondary Education, Vocational Training and Language Teaching* at the University Jaume I (Castellón, Spain): Teaching Innovation and Introduction to Educational Research' in the specialty of Language and Literature and Language Teaching. 125 students were involved in this subject. As part of the subject's assessment, our students were asked to work in groups in order to write a research proposal divided into two main parts: (i) theoretical background (definition of innovative teaching, main trends and authors and some examples of innovative projects), (ii) students define the innovative tool/resource they have chosen (e.g. blog, Kahoot, podcasts, digital books, Mahara, Fakebook, etc.) and design a didactic unit using this virtual tool. In this paper, we analyse the virtual resources chosen by our students and reflect their feelings and opinions about the implementation of these new innovative materials in a real secondary school classroom. Result show that these innovative tools can help secondary school teachers to enrich and improve the teaching/learning method by supporting the traditional method but, by no means, substituting it; however not all our students think about the possibility of implementing them.

**Keywords:** secondary school education; master's degree students; innovative resources

### 1. Introduction

The University Master's Degree for Secondary Education, Vocational Training and Language Teaching allows students to consider what education is during the educational period involved. It is open to students from various degree courses, many of which are not related to teaching, although all students will have had their own educational experience in the past. It is necessary to shape the idea of teaching that each of us has into that of a thoughtful teacher who does not act on impulse or intuition – or

---

<sup>1</sup> Correspondence: email [renau@uji.es](mailto:renau@uji.es)

at least not always – and who incorporates reflection in their professional activity, together with the appropriate skills and knowledge. The master program includes training of 60 ECTS credits. It is a complete training structured around specific (for each of the specialties offered), general subjects (psycho and socio-pedagogical field) and end module, including the Practicum, that is, the subject that provides for closer links with secondary schools, and the Master PhD Final Dissertation, aiming to be an opportunity for students to make a critical and reflective synthesis of the teaching / learning lived in the Masters and specialty enrolled. External internships or Practicum is a period of eight weeks teaching (a total of 200 hours) that all students of the Master must be performed in secondary schools in the province of Castellon. In them there is a moment of reception by the centre where the organization of the educational community, an observation period with the assigned tutor and a period of intervention. The Practicum is done in the specialty of the Master that the student is enrolled. Master PhD Final Dissertation is done as a final step of the Master studies. Many studies have been directed to research how the integration of technology into the curriculum may enhance language teaching and learning (Wong 2004; Miner, 2004; Brodskaya & Thiele, 2004; Timucin 2006; Eugene, 2006; Hixon, 2008). Most of those studies shared a common finding that is related to the effectiveness of the use of technology in education and how it assists in developing teaching methods and students' knowledge (Frigaard, 2002; Schofield & Davidson, 2003; Miner, 2004; Timucin, 2006). The use of technology in order to help in the teaching/learning process is becoming an increasingly important part of higher and professional education (Wernet; Olliges & Delicath, 2000). However, in schools, teachers are seen to be active instruments in the process of changes and implementation of new ideas as their beliefs and attitudes may support or impede the success of any educational reform. (Woodrow, 1991; Levin & Wadmany, 2006). The technical advances of information technology have also had a great impact on English language learning and they increase students' motivation, according to Mansor (2007).

According to Barraza (2005) educational innovation can be defined as a change and improvement of an already existent practice, for example, of teaching methodologies, and it becomes new and different. Being new could also be understood in a negative sense, since modifications can be done for the better or for the worse. It seems that the concept innovation "*can be used to designate an improvement with relation to methods, materials, ways of working etc. already used*" (Barraza, 2005), but this researcher points out that there have to be "new elements" so that the improvement is considered an innovation. Otherwise, in case we apply knowledge recently acquired about any aspect of the teaching or learning practice that we previously did not know, there would not be an innovation.

There are differences between what can be considered an innovation and what can only be a change. There is a tendency to make a connection between both terms, but not every change means that an innovation has happened. In fact, a change can be produced as a consequence of the influence of factors that by chance appear in a particular situation, so it happens more spontaneously while an innovation is typically

more planned (Barraza, 2005). Another concept that is usually related to an innovation is “new” that can be understood in 2 ways (Barraza, 2005):

1. Something that has never been seen or experienced before.
2. Not known ways to do or apply an already existent aspect in other circumstances, and different aims, combinations or ways of organising etc. to those experienced in other times or situations.

An innovation is likely to happen following the second definition of the two proposed for “new”, since it is very difficult to imagine an innovation based on nothing, just appearing out of nowhere without any connection to any already existent aspect.

An innovation has to be valued in relation to a goal or aim within an educative system, and according to OECD (2009: 5) “*cultural values, social policies and political goals that are deeply embedded in different societies can influence the prioritisation of the different objectives*” of those educative systems. Nonetheless, as time passes by, new situations appear and consequently priorities can change.

Apart from this, Barraza (2005) adds that “*an innovation to be considered as such, needs to last long in time, be used by many people and it has to be related with significant improvements in the teaching practice*”, so that it is not confused with a mere small change.

Barraza (2005) claims that innovation entails change, if the following conditions happen:

- The change has to be conscious and desired.
- The change is the result of a process, with steps and variable timing.
- The change does not substantially modify the professional practice, this is, the change is within the admissible limits for the legislation and what is established at the moment.

Innovation should not be understood as a reform since even though they share some similarities, reform tends to be a broader concept that includes meaningful changes that modify the system as it was conceived. An innovation is more connected to the daily practice of professionals, so in this case there are smaller changes that improve teaching. The process of teaching and learning English as a second language has been evolving throughout the last decades. According to Allford & Pachler (2007: 202), “*education and schooling have traditionally tended to follow a certain script which usually involves the teacher in transmitting information and the learner in retaining and reproducing it*”. However, the society is progressing, advancing technologically and creating new methods to deal with the typical issues of education and communication. Addad and Draxler claim in Pachler’s (2007: 202) that these technological advances could contribute extensively to instruction due to their effortlessly accessibility in place and time and to their adaptability to all the educational levels of the learners. As previously mentioned, education has been stepping forward together with social changes, from traditional towards new methods which fitted with the trend of the current stage. On the one hand, traditional teaching-learning methods regard the role of the students as mere passive receivers of the contents. The information they need to learn is delivered in classrooms, where students attend, and where the teacher, the book or printed materials are the

only providers of the elements required for learning. Students do not usually have opportunities to communicate with their classmates, thus communication and feedback are established only between a student and the teacher. After the lessons, students do not usually have access to the information delivered by the teacher, thus, it is time limited since teacher explanations are only available during the lecture (Cabero et al. in Cabero's, 2006). Nevertheless, Allford & Pachler (2007: 11) claim that the process of learning happens recently in non-instructional environments where the teacher is not directly involved and where interaction implies distance between participants. This innovative trend creates *"new possibilities, such as knowledge construction through computer-mediated interaction and learner autonomy in online networks"*. This new teaching method, supported by new technologies, promotes the *"just-in-time training"* (Cabero et al. in Cabero's, 2006), in which the learning of new contents is determined by students' needs and they build their knowledge actively. For this reason, students are individually responsible of their learning and of the management of the time they need to spend using these tools. Moreover, they do not need to attend to lectures in order to learn because materials are available on the Web. Due to this fact, learners can use them either in instructional settings, for example in classrooms, and in non-instructional settings, for instance in their workplace, at home or in the street. Finally, these teaching tools provide students opportunities to interact and communicate with other students and to receive feedback from them (Cabero et al. in Cabero's, 2006). Due to all these reasons, this new teaching method could be regarded as an innovative supplement in the education and as a complement of the traditional resources used for teaching (Allford & Pachler, 2007: 203), that should be included in the teaching process of all subjects, including in the teaching of languages (Ala-Mutka, Punie and Redecker, 2008).

Information and Communication Technology (ICT), according to Toomey (2001), Lloyd (2003) and Silverstone & Hirsch (1992) is associated with *"those technologies that are used for accessing, gathering, manipulating and presenting or communicating information"*. These new and popular technologies comprehend from physical devices, for example, computers, tablets or mobile phones, to virtual applications or WebPages available in the Internet. As Adell & Castañeda (2012), Villanueva, Ruiz-Madrid & Luzon (2003: 1) and Coll, Mauri & Onrubia (2008) state, these technologies and their uses are growing swiftly among the population, becoming indispensable in the social members' daily lives, used to interact and be communicated with others, or to obtain updated information immediately in their phones. The number and types of technologic devices increases at the same time they are required and used by society, trying to respond to their needs. Thus, in the same way, innovative methods of teaching and learning using these new technologies are recently arising (Villanueva, Ruiz-Madrid & Luzon, 2010: 4, Adell & Castañeda, 2012: 14, Godwin-Jones, 2011: 3). The Spanish Directorate General of Communication in Cabero's (2006) states that e-learning is the process of teaching distance learning using Information and Communication Technologies, offered in the World Wide Web, which guarantee an available and manageable communicative acquisition of the learning contents included in them. Moreover, e-learning could be

regarded as a tool that would make updated and useful contents and opportunities accessible to a great number of members of the society (Cabero, 2006). Some of the materials from the web used in this current learning tendency are WebPages which include pedagogical contents in the shape of worksheets, videos, blogs or activities, and Applications, which can be downloaded in computers, tablets or phones (Jolliffe et al. in Cabero's, 2006). A report of the Information, Communications and Media Panel (ICM) in Allford & Pachler's (2007: 204) concludes that new technologies could improve the teaching and learning process, thanks to its strength, its flexibility and its adaptability. Therefore, these digital materials *"need to be a priority in lifelong learning strategies, as ICT is becoming an increasingly important tool for leisure, learning and work in all fields"* (Ala-Mutka in Ala-Mutka, Punie & Redecker's, 2008). Although this fresh teaching procedure based on the web consumes time and requires deep commitment for the design of the materials offered to learners, it has reached a high level of popularity among the educational institutions due to some reasons. The use of new technologies and the capacity *"to access digital media and ICT, to understand and critically evaluate different aspects of digital media and media contents and to communicate effectively in a variety of contexts"* is called *digital literacy*" (Ala-Mutka, Punie and Redecker, 2008). Thanks to this ability to use adequately ICTs, learners could critically evaluate materials and contents, and, as a result, they could learn the contents and apply them successfully in different communicative situations (Leu et al. in Villanueva, Ruiz-Madrid & Luzon's, 2010: 11). Moreover, as this information is located in the web, learners could receive readily renovated and enlarged contents and could access to them and to a record of their performance and progress regardless of where they are. In addition, it provides opportunities for interaction and facilitates the distance communication between the learner and the teacher or with other learners (Adell & Castañeda, 2012: 26). Students using ICTs can access to a wide field of input in which they select, understand and study the contents they choose, and progress their linguistic abilities with the materials they prefer (Allford & Pachler 2006: 214). These materials are characterized by the use of combined instruments to deliver contents, for example, the use of sounds combined with words or images. Thanks to this ability named multimodality (Allford & Pachler, 2006: 214), ICTs provide students fictional but inspired in real-life situations which could help them to learn how to use the language and the style adequately in each social setting or context. Finally, as Cabero (2006) claims in his work, e-Learning fosters the learner's autonomy to learn in a multimedia environment, where a wide quantity of materials and information, presented in different shapes and formats, are provided to them. Thus, autonomous learning is motivated due to the use of these interactive linguistic resources which they provide immediate *"feedback, control, communication and adaptivity as well as enabling creativity and productivity"* (Pachler, 2006: 214). The use and progressive establishment of ICTs have a huge impact in today's society, including educational contexts. This fact has made teachers include DC in their teaching programme. Due to Educational Innovation, the implementation of traditional methods or materials is not enough. Students have to achieve Digital Competence, and as a

consequence, the use of new technologies and ICTs applications are necessary. According to Cabero (2001), educational technology, as a field of study and its professional development, has progressed during last years. Hence, this evolution clearly reflects the significance that technology has acquired in last century, as well as its evolution in a continuously changing society. Educational Innovation is understood as a range of new techniques, methods and features that are applied in the daily educational practices. The aim of this technique is to introduce, and to promote favourable changes in every single educational aspect. Fidalgo (2011) stated that this innovation achieves substantially the same result as before by working less, or by working the same, obtaining better results. He compared innovation with a 'chair' as for a chair, taking its rightful role, has to be supported by its four legs. Therefore, each leg of the chair is equally important, if one of these elements is missing, the chair loses its main function. Consequently, compared with Innovation, the components of this imaginary chair are: technology, process, people, and knowledge: Technology adapted to an educational context; Processes could be contemplated as Educational Methodologies, as well as any logistical or management process; People, as innovation should take into account its implication and repercussion to all members involved. Thus, when educational innovation is implemented in a classroom, it transforms the traditional processes and the teacher-student role; Knowledge, during any process of teaching innovation the use of knowledge is required, since knowledge acquisition is the real learning objective.

On the other hand, Blanco & Messina (2000) set a number of characteristics in order to establish common ideas about innovation. The conclusions were as follows:

- Innovation involves a qualitative and significant transformation, not just an improvement or an adjustment of the current system.
- Innovation is not necessary an invention, but something new that promotes progress.
- Innovation implicates a specific purpose; thus it should be well-planned.
- Innovation is an option to improve the educational purposes. o Innovation needs an approval of those who have to implement it. o Innovation also needs a practical change in the educational system.
- Innovation is an open process that involves an academic reflection.

Currently, it has been reached a point where it is necessary to think about what innovative approaches to learning languages can be applied to satisfy the needs of new generations growing surrounded by new technologies. Healey et al. claimed that (as cited in Stanley, 2013, p. 58) *"teaching our students language in its traditional media is no longer enough, and increasingly, in everyday and professional life, people need the skills of electronic literacy"*. Technology can be applied through many different procedures, such as enhancing the content of the lesson or some activity in particular, or covering some part of the syllabus for which there is not enough time during the course. According to Leask (as cited in Pim, 2013, p. 17), *"technology-mediated language learning seems to be most successful when the technology is seamlessly integrated into the overall activity and where it is*

used as a cross-curricular tool". Apparently, most teachers think that Information and Communication Technologies (ICTs) not only enhance teamwork and cooperation among students, but they also offer personalised and scaffolded learning (Pim, 2013).

The use of digital resources and technology in the field of English learning seems not to be restricted to any age, as its benefits can be applied to teach from very little children to adults. In many contexts, children are, from a very early age, in contact with technological devices at home, and this allows them to participate in activities related to this field later in schools, as they have already developed some digital skills (Pim, 2013).

### **1.1. Process Models**

Innovation theorists have analysed innovation experiences already carried out and they have identified three process models (Huberman, 1973 y Havelock y Huberman, 1980 as cited in Barraza, 2005):

1. Investigation and Development: It tries to discover, develop, produce and spread knowledge by following steps that begin by collecting information (i.e. discovering phase). Then, it continues by transforming that data into ideas for improvement (i.e. development and production phase) and it finishes by providing the result of this process to professionals that might benefit from the result.
2. Social Interaction: this model highlights interpersonal networks of information, leadership, opinion, personal contact and social integration to spread innovation. Communication plays an important role and in order to check effectiveness of this model researchers track the group that adopts innovation in a particular way, for example by means of didactic materials. This leads to a study of the development of innovations to learn receiver's perception and response to them.
3. Problem-Solving: This model identifies a need and produces a solution (i.e. innovation) as a response. Therefore, the process goes from a problem to a diagnosis, then to a test and finally to an adoption. This is described as a "*participatory approach*" by Barraza (2005) and the focus is on collaboration to find a solution for a user and so an innovation is produced as a result.

### **1.2. Principles of the Theory of Innovation**

The principles that would shape the Theory of Innovation are the following ones (Barraza, 2005):

1. Innovations are defined as problem-solving processes.
2. A good innovation is one that fulfils integration with other components of the educational or pedagogical process with which it necessarily interacts and complements itself to improve quality, coverage and efficiency.
3. The main difference between innovation and change is that the first one is planned and this increases the probabilities to achieve the change desired.
4. The more ambitious the changes are, the less possibility to achieve them or there is a higher exposure to failure.

5. Among the more important strategic factors for the innovation to be carried out, problem-solving can be highlighted with local participation and openness in terms of contributions.
6. Innovations are characterised by their complexity, but it is possible to identify some elements that define an innovative system, such as considering other ways to teach and learn.
7. An innovative system follows a bottom-up structure. Proposals for change are presented as an hypothesis, contradictions are assumed as part of the history and the experience is opened to the contrast with other groups of teachers.
8. Innovations are characterised by a diversity of shapes, methods and scopes and they entail changes both in activities and in attitudes.
9. The main obstacles identified are the excessive centralisation, the defensive position of the teachers, the lack of an agent of change, the insufficient connection between the theory and the practice, and the lack of knowledge regarding the educational processes by the parents and local and administrative civil servants from the field of education.
10. There are six types of change: substitution, alteration, addition, restructuring, elimination and reinforcement.
11. There are three models to understand the change in education, the investigation and development model, the social interaction model and the problem-solving model.
12. In decentralised systems more room for initiative is allowed to people, while in centralised systems there is more tendency to impose innovations.
13. If innovations are contradictory with people's values, they have few possibilities to succeed.
14. It is necessary to institutionally support innovations, and for that, three dimensions have to be worked on: a) the institutional autonomy together with the creation of nets and central services of support; b) the professionalisation of teachers; and c) a politic.

With these principles, Barraza describes what can be considered an innovation and the conditions that it has to fulfill. This author focuses the principles on the education field, explaining the aim of an innovation (i.e. it is addressed to solve a problem or a need), its features and relationship with the concept of change. He also introduces the barriers he found for innovation to be looked for and applied in secondary classrooms, as well as the models that depend on the direction changes take.

### **1.3. Areas of Innovation**

According to the analytical structure proposed by the Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES) (2003) as cited in Barraza (2005) there are five areas of innovation: 1) plans and study programmes, 2) educational process (i.e. process of teaching and learning, teacher training, materials and resources for learning), 3) the use of information and communication technologies,



4) alternative modalities for learning, 5) government and management (i.e. actions should be taken to improve the field of education, an active and supportive attitude is required from politicians and a more flexible legislation that accepts innovative proposals.

#### **1.4. Considerations for Innovation**

Curriculum development has to be based on collaborative interaction, an important pillar for innovation to happen. This allows detecting possible aspects that could be improved, as a communicative teacher-student relationship is a positive start to identify gaps to be filled with new ideas.

Innovation is achieved in a teaching-learning environment once their participants *“perceive it opened to continuous improvement and integrated into a curricular project of an institutional nature”* (Domínguez, Medina & Sánchez, 2011: 65). Therefore, the far we get in innovative practices, the closer we will be to students’ and institution’s needs.

Shulman (1986) as cited in Domínguez, Medina & Sánchez (2011: 66) has considered that *“thoughts, actions and contexts have a great influence, as they happen in the teaching and learning process”*. Consequently, to innovate we must improve the following aspects:

- The contexts, communities and micro-societies that affect the process of teaching and learning.
- Thoughts of the agents of the classroom construct, with great responsibility of the professional.
- Actions, designing the most representative tasks for the class and for the students that we have to assume and stimulate, achieving full communication and an empathic and liberating interaction.

With regard to which techniques, methods or ideas should Educational Innovation study, Blanco & Messina (2000) pointed out that the lack of a common framework make difficult the distinction of what innovation really is. For that reason, the authors proposed a number of characteristics in order to set up common ideas about innovation. The conclusions were as follows:

- Innovation involves a qualitative and significant transformation, not just an improvement or an adjustment of the current system.
- Innovation is not necessary an invention, but something new that promotes progress.
- Innovation implicates a specific purpose; thus it should be well-planned.
- Innovation is an option to improve the educational purposes.
- Innovation needs an approval of those who have to implement it. o Innovation also needs a practical change in the educational system.
- Innovation is an open process that involves an academic reflection.

Consequently, Educational Innovation has as an aim the transformation of teachers’ practices, in order to improve students’ educational learning process.

However, as Blanco & Messina (2000) claimed, since ICTs applications are constantly being updated, innovation research never ends.

### **1.5. Context for Innovation**

Every educational innovation has a “*multidimensional process*” (Salinas, 2008: 17): it involves different factors (i.e. political, economic, ideological, cultural and psychological) and it affects different contextual levels, from the level of the classroom to that of the group of universities (Salinas, 2008: 17). Depending on how the different participants involved in education apply the new changes, these will be later on spread if they succeed or ignored in case no one is interested in those modifications: Incorporation of new technologies to teaching is an opportunity for different changes to happen (Salinas, 2008: 21):

- Changes in conceptions (how it works in the classroom, definition of didactic processes, identity of the teacher, etc.).
- Changes in basic resources: Contents (materials, etc.), infrastructures (access to networks, etc.), open use to these resources (manipulable by the teacher, by the student,...)
- Changes in teachers’ and students’ practices. In order to do that, a variety of communication technologies that provide the necessary flexibility to meet individual and social needs have to be set, to achieve effective learning environments, and to achieve teacher-student interaction. Economic, technological and didactic factors have to be considered so as to know if it feasible to introduce an innovation. A deep analysis of up to what extend the change is significant enough to give it an opportunity has to be done in advance.

## **2. Objectives**

The objective of this paper is make students, enrolled in the Master Degree, aware of the importance of implementing new technologies in the secondary school classes in order to innovate and renovate the traditional teaching methodologies. We do not pretend to replace them but to complement them by adding some innovative methods. Students design projects in this very same line, and give their opinions and feelings about the possibility of implementing their projects in a current secondary school class.

## **3. Method**

### **3.1. Participants**

The participants are 125 students enrolled in the subject SAP405 (Teaching Innovation and Introduction to Educational Research) in the Master's Degree in Teaching of Compulsory Secondary Education, Vocational Training and Language Education in the specialty of Language and Literature and Language Teaching course. As this research

has been done throughout 2 academic years, the students involved are from 2 different academic years.

### **3.2. Subjects**

It is one of the three theoretical subjects of each specialization of the Master in Teaching of Compulsory Secondary Education, Vocational Training and Language Education. It consists of 8 ECTS credits of a total of 200 hours of student work. The subject is compulsory for the students of the Master Degree and is developed intensively for four weeks. The importance of this subject in the formation of secondary teachers is the need that teachers have to confront and respond to the changes that have occurred in recent decades in society and for traditional teaching methods have shown be unsuitable or less insufficient. To provide an effective response, not worth to apply the methods known as a recipe, but there is a questioning attitude based on data from reality. All these aspects are discussed in this subject from three general groups: innovation, research and evaluation, which will be taught from a generic and multidisciplinary perspective in the first half and will be applied specifically in the field of specialty in the second part.

### **3.3. Task**

Students, in groups, have to write a project clearly separated in two parts:

- Theoretical Framework
  - Definition of Teaching innovation
  - Main authors and trends
  - Examples of teaching innovation projects
  
- Proposal
  - Choosing a resource for innovation (Blog, Mahara, Digital Book, Edmondo...)
  - Theoretical explanation of the chosen resource
  - Project proposal (didactic unit with the use of innovative resource/tool)
  - Description of the students
  - Proposed activities

Once students have delivered their project, they have to expose it in front of the class so as to their classmates can learn from their peers and can get a wider and/or different perspective.

### **3.4. Questionnaire**

Then, students are asked to answer some questions in order to get their opinions and feelings about the possible implementation of their projects in a real secondary classroom. At this point, we have to remind that students do their training in a secondary school in two periods. The first stage lasts 3 weeks and the second stage is about 5 weeks. During this time, students work together with secondary school

teachers, attend classes and they are allowed to participate and prepare some tasks for the students.

The 3 questions are the following ones:

1. Q1. After your practical classes in an actual secondary school, do secondary school students/ teachers make use of the new technologies in their classes in order to learn English as a second language?
2. Q2. Do you think your didactic proposal/project could be implemented in a real classroom? Why/why not?
3. Q3. Do you think you can be an innovative teacher in the actual educational system in Spain?

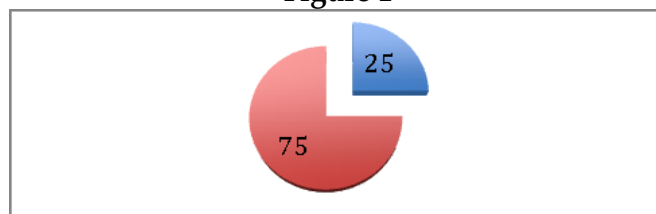
## 4. Results

### 4.1. Students' Opinions

All our students agree about the importance of the stage in the secondary schools, as it is the first contact with actual classes and actual students. After this period, they were asked about the experience and these are their answers:

- Q1 After your practical classes in an actual secondary school, do secondary school students/ teachers make use of the new technologies in their classes in order to learn English as a second language? Which ones?

Figure 1

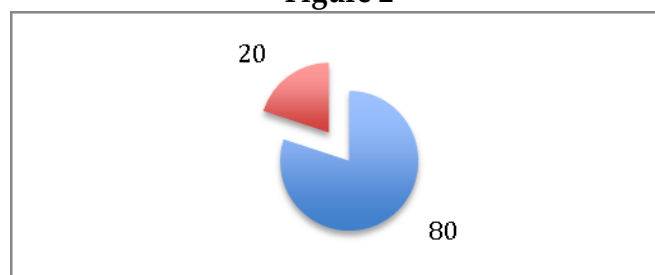


75% of the students affirmed that, in the secondary schools where they were doing their internships did not use any kind of technological resource or virtual resource or tool. Although some assured there are some technological resources in the centres such as digital boards, projectors, computers, teachers do not use them in their classes.

The other 25% said that some teachers in the secondary schools made use of digital boards and some encouraged their students to use some digital resources such as the PowerPoint to present some classroom works.

- Q2 Do you think your didactic proposal/project could be implemented in a real classroom? Why/why not?

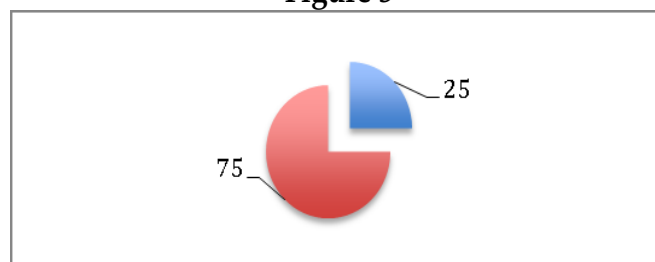
**Figure 2**



Most of the students, 80% of them, answered that they would like their projects to be implemented in an secondary school class and some of them answered that technological resources are not used in the secondary schools but if there were, they would use them and encourage their students to do the same. The rest of our students, 20% of them, said they would not like to implement their projects as they said it would be impossible in their current secondary schools.

- Q3 Do you think you can be an innovative teacher in the current educational system in Spain? Give reasons

**Figure 3**



Students' answers to question 3 coincide in percentage with answers in question 1. This fact can be explained as students have had experiences in real life. They have experimented the difficulties that teachers face everyday with new technologies. Students answering 'no' justify their answers by telling their experience in the secondary school: answers such as 'teacher does not make use of new technologies as they do not feel like, or they do not know how to do it, or if they want to do it, but they find many institutional obstacles' are the most common answers when saying 'no'. Otherwise, students answering 'they would try with new technologies' are the ones who, in their trainings, have met teachers willing to implement new language teaching methodologies and they work hard to make them use in the classrooms.

## 4.2. Students' Proposals

### 4.2.1. Edmodo

Edmodo allows communication between students and teachers as a microblogging, in a closed and private environment. It was created in 2008 by Jeff O'Hara and Nic Borg,

although a few years ago it was acquired by Revolution Learning. The project is available in Spanish and in seven other languages. In effect, Edmodo, is an educational social platform totally free, without any additional cost.

Figure 4



Source: <https://www.edmodo.com>

Edmodo allows us to have a space of communication between the different roles through messages and alerts; manage the grades of our students; share various multimedia resources: files, links, videos...; create private groups with limited access to teachers, students and parents; launch student surveys; allocate tasks to students and manage their grades, manage a class calendar and create communities where all the teachers and students of our school can be grouped together.

The fact that a group of students can work together on the same online platform encourages interaction, cooperation and teamwork, as well as emphasizing the good use of new technologies.

#### 4.2.2. Blog

A Blog is a personal space for writing on the Internet in which the teachers publish articles or news (post) in which they can include text, images and links. Updating the contents of the Blog is not complicated for the user, as it is done through the web from the browser itself and without the need to use any auxiliary program.

Originally blogs were intended to be used as online journals to inform, share, and periodically discuss the things that the author deemed appropriate, but a blog can become much more than a newspaper and has several applications that can be used in our secondary education.

A blog is a website in which items are posted and displayed with the newest at the top. Blogs often focus on a particular subject. A typical blog combines text, images and links to other blogs.

An Edublog is aimed at supporting the teaching and learning process in an educational context. Blogs and education itself are by nature processes of communication, socialization and knowledge construction.

Figure 5



#### 4.2.3. Digital Book

It is an environment where to share and show the students' work. Students can create their stories and share them with the teacher and their classmates.

It is a resource in the form of a book or notebook, similar to books on paper but in electronic format where anyone can add chapters or documents.

The digital book has been developed with *FlippingBook Publisher Trial*, an application that can be downloaded for free and allows you to add any file as long as it is in pdf format, also multimedia files can be added.

Figure 6



#### 4.2.4. Fakebook

Fakebook is an innovative resource used to create profiles on said social network for educational purposes. You can describe a historical character. Fakebook is a free tool that anyone can access through the following website: [www.classtools.net](http://www.classtools.net).

**Figure 7**



Source: [www.classtools.net](http://www.classtools.net)

The first thing teachers have to do is choose a name and an image (using Google Images). You can also put a background that appears behind the profile photo and name. Next, it is important to complete the section where you can add personal information about the character you choose, as well as the date of birth, and the family. There is another section used to add contacts, enemies, family, or any other group of people who want to classify by another name. And finally, teachers can create an entry in relation to the character. They can upload links to videos and other web pages.

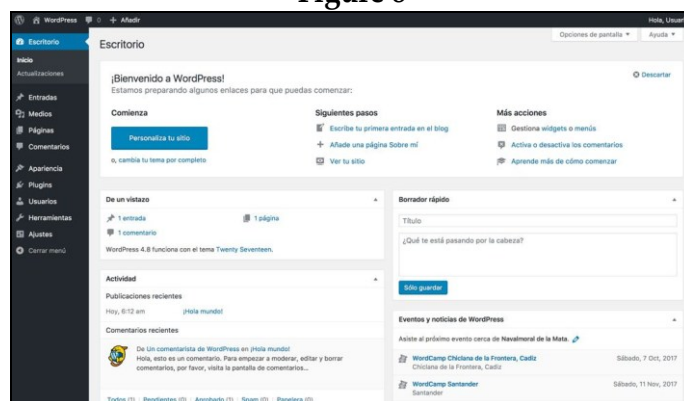
#### **4.2.5. Wordpress and Hot Potatoes**

The Wordpress tool is a web publishing system with entries sorted by date. It is a platform that allows you to write, modify articles and create a web page or blog. It is an easy way to share information without worrying about writing codes. This was the reason for our choice because it allowed us to design our WQ project easily and simply. It is very versatile and, in addition, it is very easy to introduce activities created with the application Hot Potatoes.

Hot Potatoes is a tool that increases the exposure time and interaction of students with the target language, increasing their motivation and their language skills. It could be defined as a program package that includes six modules called potatoes that allow to create different types of interactive multimedia exercises (Arneil, Holmes & Street, 2001). Examples of activities would be multiple-choice questions or open-ended questions that include the possibility of self-correction. Therefore, it should be noted that this program promotes students' autonomy and critical thinking.

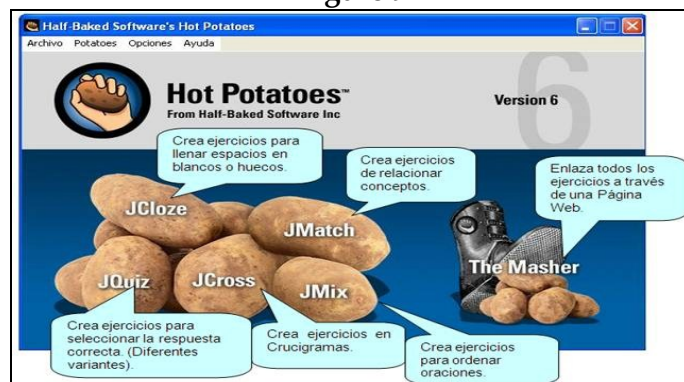


Figure 8



Source: <https://wordpress.com>

Figure 9



Source: <https://hotpot.uvic.ca>

#### 4.2.6. Podcasts

Podcasting consists of creating and publishing digital audio and video files on the Internet so that they can be downloaded and / or heard by students. These files are called podcasts and the format in which they are normally distributed is an MP3 format. Something important is that they can be heard both on the computer and on an mp3 player, iPod type or another that plays these types of files. The student can create his own material, as evidence of his learning. During the last few years, creating or recording sound files and disseminating them on the Internet so that they can be downloaded and listened to whenever the user wants in an audio player, and applying them in some didactic models has been able to achieve better results in the learning of social, historical, political contents, etc., and in the acquisition of competences of the language such as oral comprehension, reading, oral expression, etc.

Taking into consideration that the podcast is one of the applications that facilitate the maximum interaction between the users of the Internet, we can locate a great amount of podcasts oriented to the learning of practically all the subjects. The use of the podcast is to publish, express and give opinions, seek and receive information of interest, collaborate and create knowledge is more oriented as a teaching resource many more effective to achieve a certain result.

#### 4.2.7. Mahara

According to Mahara.org (2016), *"it's the perfect personal learning environment mixed with social networking, allowing you to gather, reflect and share your achievements and development online and in a space you control."* Through a simple interface, users can develop this virtual portfolio in which there is not only the possibility of sharing information, but of interacting with it. That is, when a student publishes in his portfolio, everyone else will have access to that information and insert comments about it. Mahara belongs to the Web 2.0 or social web. According to Arroyo (2007), this term defines those online pages that are governed by *"two fundamental principles closely linked: collective intelligence and participation architecture"*. The first is that the sum of knowledge of each individual constitutes a corpus of knowledge, creating a collective work. That is, a student shares his own essays in Mahara, so that the rest can read them; it is a fact that enriches collective knowledge. The second principle of Web 2.0 refers to the participation of the entire user community. That is, the feedback (comments and ideas) by some students to others.

Figure 10



Source: <https://demo.mahara.org>

#### 4.2.8. Kahoot

An online classroom review game that students join using smartphones to answer questions. Because game rooms can be made quickly, Internet users will often publish the room pin online so strangers can join the Kahoot. Kahoot uses a point system that rewards correct responses and response speed.

Kahoot! is a [game-based learning](#) platform, used as [educational technology](#) in classrooms and other learning institutions. Launched in August 2013 in [Norway](#), Kahoot! is played by millions of people in 100 countries. Its learning games ("kahoots") are multiple-choice quizzes that can be created by anyone and are not restricted as to age level or subject matter. Kahoot! can be played using any [mobile device](#), desktop or laptop with an internet connection and [web browser](#).

Figure 11



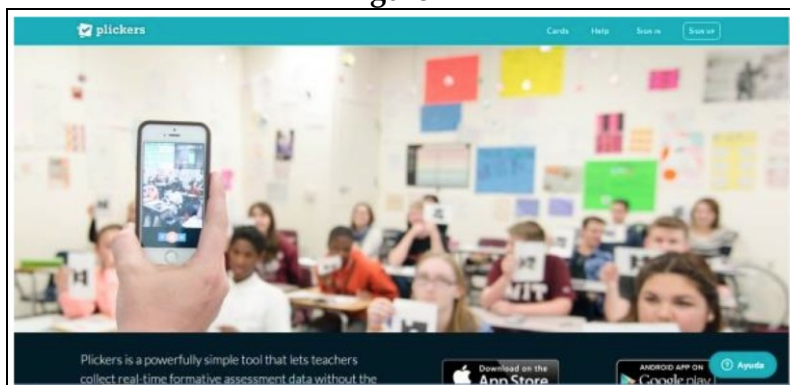
Source: <https://kahoot.it>

#### 4.2.9. Plickers

Plickers is a powerfully simple tool that lets teachers collect real-time formative assessment data without the need for student devices. It is the "student response system" that does not require clickers!

This application allows us to instantly know the answers our students give in class to the questions we ask them. For this, we will provide you with a QR code that is linked to the identity of our student, with which depending on the position in which they place it, they will choose one of the 4 options. To read it we will use our mobile device or a tablet and in this way we will know that you have answered the whole of our class.

Figure 12



Source: <https://get.plickers.com>

## 5. Conclusion

Our students enrolled in our Master Degree are young students, eager to start their professional careers. They are full of innovative ideas, they are enthusiastic and as I have told them: 'if you do not do it, who else is going to do it?' but they have to work hard.

They all have the key to improve our educational system. They have to contribute to our society to make their future students become competitive and competent citizens. This is an individual task and they are willing to implement the

theoretical background they have studied first in their degree and now, in the Master degree. However, when they face realia, they understand there is much work to do, as current classrooms in secondary schools are not as ideal as they thought. As far as they are concerned, they encounter some institutional, logistic and bureaucratic hurdles together with some secondary school teachers' obstacles such as lack of time, lack of knowledge or simply they do not feel like having extra work. In conclusion, the three main drawbacks when making use of new technologies are: investment of money, investment of time, uncertainty of results but with effort, hard work and institutional help, they can change the educational system.

## References

- Adell, J. & Castañeda, L. (2012). Tecnologías emergentes, ¿pedagogías emergentes?. In J. Hernandez, M. Pennesi, D. Sobrino & A. Vazquez (Coord.), *Tendencias emergentes en educación con TIC* (pp. 12-32). Barcelona: Asociación Espiral, Educación y Tecnología
- Ala-Mutka, K., Punie, Y. & Redecker, C. (2008). *Digital competence for Lifelong Learning*. Luxemburg: Office for Official Publications of the European Communities. Retrieved from <http://ftp.jrc.es/EURdoc/JRC48708.TN.pdf> [Last access 16 March 2018].
- Allford, D. & Pachler, N. (2007). *Language, Autonomy and New Learning Environments*. Bern: Peter Lang.
- ANUIES (2003), Innovación educativa, [México](#), Autor
- Barraza, A. (2007) Innovación Educativa. Monografía publicada en: <http://www.monografias.com/trabajos18/innovacion/innovacion.shtml#modeloA>
- Barraza, A.; Cárdenas, T. de J., Hernández, C. (2013). ¿Cómo elaborar proyectos de innovación educativa? Durango: Universidad Pedagógica de Durango.
- Bailly, S. (2010). Supporting Autonomy Development in Online Learning Environments: What Knowledge and Skills do Teachers Need? In Luzón, M.J., Ruiz-Madrid, M.N. & Villanueva, M.L., *Digital Genres, New Literacies and Autonomy in Language Learning* (pp.81-100). Newcastle: Cambridge Scholars Publishing.
- Blanco Guijarro, R. & Messina Raimondi, G. (2000). *Estado del Arte sobre las Innovaciones Educativas en América Latina*. Santiago: Convenio Andrés Bello.
- Cabero, J. (2001). *Tecnología educativa. Diseño y utilización de medios en la enseñanza*. Barcelona: Paidós.
- Cabero J. (2006). Bases pedagógicas del e-learning. *Revista de Universidad y Sociedad del Conocimiento*, 3 (1). Retrieved from: <http://www.raco.cat/index.php/DIM/article/view/56479/65901> [Last access 22 March 2018].
- Coll, C. Mauri, T & Onrubia, J. (2008). La utilización de las tecnologías de la información y la comunicación en la educación: Del diseño tecno-pedagógico a las prácticas

- de uso. In Coll, C. & Monereo, C. (Ed.), *Psicología de la educación virtual: aprender y enseñar con las tecnologías de la información y la comunicación* (pp. 75-104). Madrid: Ediciones Morata.
- Domínguez, M<sup>a</sup>. C; Medina, A. y Sánchez, C. (2011). La innovación en el aula: referente para el diseño y desarrollo curricular. *Perspectiva Educacional*, 50 (1), pp. 61-86
- Eugene, J. (2006). How teachers integrate technology and their beliefs about learning: Is there a connection? *Journal of Technology and Teacher Education*, 14(3), 581-597.
- Fidalgo, Á. (2011). La innovación docente y los estudiantes. *La Cuestión Universitaria*, (7), 84-91.
- Frigaard, A. (2002). Does the computer lab improve student performance on vocabulary, grammar, and listening comprehension? ERIC Document Reproduction Service No. ED476749.
- Havelock, R.G.; Huberman A. M. (1980), *Innovación y problemas de la educación. Teoría y realidad en los países en desarrollo*, Ginebra, Suiza, UNESCO-OIE. <http://www.monografias.com/trabajos18/innovacion/innovacion.shtml#ixzz54LlsPmw>
- Hixon, E. (2008). Team-based online course development: A case study of collaboration models. *Online Journal of Distance Learning Administration*. 11(4). Retrieved from <http://www.westga.edu/~distance/ojdla/winter114/hixon114.pdf>
- Hoffman, A. and Holzhuter, J. (2012), "The evolution of higher education: innovation as natural selection", in Hoffman, A. and Spangehl, S. (Eds), *Innovation in Higher Education: Igniting the Spark for Success*, American Council on Education, Rowman & Littlefield Publishers Inc., Lanham, MD, pp. 3-15.
- Huberman, A.M. (1973) *Cómo se realizan los cambios en educación: una contribución al estudio de la innovación*. París, Unesco, 1973. 109 p. (OIE. Experiencias e innovaciones en educación, N.O 4)
- Levin, T., & Wadmany, R. (2006). Teachers' beliefs and practices in technology-based classrooms: A developmental view. *Journal of Research on Technology in Education*, 39(2), 157-181.
- Lloyd, M. (2005). Towards a definition of the integration of ICT in the classroom. In Australian Association for Research in Education (Ed.), *Creative Dissent: Constructive Solutions*, 2005, November 27 – December 1. Parramatta: New South Wales. Retrieved from: <http://eprints.qut.edu.au/3553/1/3553.pdf> [Last Access 4 April 2018].
- Mansor, N. (2007). Collaborative learning via email discussion: Strategies for ESL writing classroom. *The Internet ESL Journal*, 13(3), Retrieved from <http://iteslj.org/Techniques/Mansor-EmailDiscussion/>
- Miner, T. (2004). Using technology to enhance learning: Instructor- or Student-Moderated Discussion Boards: Which are more effective? Retrieved from [http://www.cccone.org/scholars/0405/TomMiner\\_final\\_report.pdf](http://www.cccone.org/scholars/0405/TomMiner_final_report.pdf)

- Ministerie van Onderwijs Cultuur en Wetenschappen (1998). *Verder met vitaal leraarschap*. Zoetermeer: Ministry of Education, Culture and Science, Den Haag: Sdu/Servicecentrum.
- OECD. CERI. *Case studies of educational innovation*. (1973) Vol. IV: *Strategies for innovation in education*, by P. Dalin. Paris, 1973. 296 p.
- Pim, C. (2013). *Emerging technologies, emerging minds: digital innovations within the primary sector*. In G. Motteram (Ed.), *Innovations in learning technologies for English language teaching* (pp. 17-42). London: British Council.
- Silverstone, R, Hirsch, E. & Morley, D. 1992. *Information and Communication Technologies and the moral economy of the household*. In Silverstone, R & Hirsch, E. (Ed.), *Consuming Technologies. Media and Information in domestic spaces*, pp. 15-30. London: Routledge.
- Shulman, L.S. (1986). *Those Who Understand: Knowledge Growth in Teaching Educational Researcher*, Vol. 15, No. 2. (Feb., 1986), pp. 4-14.
- Stanley, G. (2013). *Integrating technology into secondary English language teaching*. In G. Motteram (Ed.), *Innovations in learning technologies for English language teaching* (pp. 45-66). London: British Council.
- Timucin, M. (2006). *Implementing CALL in the EFL context*. *ELT Journal*, 60(3), 262-271.
- Toomey, R. (2001). *Schooling Issues Digest No 2: Information and Communication Technology for Teaching and Learning*. Canberra: Commonwealth of Australia
- Villanueva, M.L., Ruiz-Madrid, M.N. & Luzón, M.J. (2010). *Learner autonomy in Digital Environments: Conceptual Framework*. In Luzón, M.J., Ruiz-Madrid, M.N. & Villanueva, M.L., *Digital Genres, New Literacies and Autonomy in Language Learning* (pp.1-22). Newcastle: Cambridge Scholars Publishing.
- Wernet, S., Olliges, R., & Delicath, T. (2000). *Post course evaluation of WebCT (Web Course Tools) classes by social work students*. *Research on Social Work Practice*, 10(4), 487-504.
- Wong, L. (2004). *Using technology in a low-advanced ESL class*. Retrieved from [http://www.ccone.org/scholars/04-05/LettyWong\\_final\\_report.pdf](http://www.ccone.org/scholars/04-05/LettyWong_final_report.pdf)
- Woodrow, J. (1991). *Teachers' perceptions of computer needs*. *Journal of Research on Computing in Education*, 23(4), 475-49

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Foreign Language Teaching shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).