Innovation in the Secondary Education in Spain: Future Teachers´ Recommendations and Conceptions

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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. 45 students are involved in this subject. As part of the subject´s assessment, our students are 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 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).

2. Objectives

The objective of this paper is to 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 45 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. Out of these 45 students, 24 belong to the specialty of English and the remaining 21 belong to the Spanish branch.

3.2. Subject

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:

<table>
<thead>
<tr>
<th>- Theoretical Framework</th>
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<tbody>
<tr>
<td>• Definition of teaching innovation</td>
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<td>• Main authors and trends</td>
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<td>• Examples of teaching innovation projects</td>
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<table>
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<tr>
<th>- Proposal</th>
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<tbody>
<tr>
<td>• Choosing a resource for innovation (Blog, Mahara, Digital Book, Edmondo…)</td>
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<tr>
<td>• Theoretical explanation of the chosen resource</td>
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<tr>
<td>• Project proposal (didactic unit with the use of innovative resource/tool)</td>
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<td>• Description of the students</td>
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<td>• Proposed activities</td>
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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
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 every day 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

12 working groups are formed (6 groups of students enrolled in the specialty of English and 6 groups of students enrolled in the specialty of Spanish). The application and virtual resources analysed in this paper are Kahoot, Plickers, Edmodo, Fakebook, WordPress, Hot Potatoes, PodCasts, Mahara, a Blog and a Digital Book. As in the English groups there are two similar tools (4. Podcating and 6. Podcast), only one of them will be analysed and in the Spanish groups there are 4 of them who decided to work with blogs (only one example will be analysed). One English group and one Spanish coincided in analysing Fakebook, so this tool has been explained once. So, a total of 7 resources are going to be described.

4.1.1. 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.

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, etc.
- 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.
• To create communities where all the teachers and students of our school can be grouped together.
• Access via mobile devices (iPhone and Android).

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.

4.1.2. 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 2](image-url)

4.1.3. 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.
4.1.4. 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.

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.

4.1.5. 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.
4.1.6. 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.

4.1.5. 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 8

4.1.6. 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 9
4.1.7. 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 10

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


Author's Biography with Photo

**María Luisa Renau**

was born in Castellón, Spain. She holds a degree in English and German philology since 1993 in the Valencian University, Spain. In 2004 she obtained her PhD with honour in the Universitat Jaume I, Castellón, Spain. She is a full-time professor in the English Studies Department at Universitat Jaume I in Castellón, Spain. She has been teaching ESP for 16 years, mainly Computer Engineering courses. Moreover, she supervises students’ Final Degree Dissertations in the English Studies Degree and also, she is actively involved in the master from the English Department supervising Final Master Dissertations with the topic of ICTs (Innovation and Communication Technologies) and the CLIL approach. Her main research is in the ICTs, especially in the ESP courses and also connected to the CLIL approach. Furthermore, she has been an active member in the Cognitive Linguistics research group (GRESCA) for five years where she has several relevant publications in this field.