(C-11)

INNOVATION AND INVESTIGATION:
USE OF ICTS IN THE FL CLASSROOM

Antonio Daniel Juan Rubio
Isabel María García Conesa

(C-11) INNOVATION AND INVESTIGATION: USE OF ICTS IN THE FL CLASSROOM

Antonio Daniel Juan Rubio, Isabel María García Conesa

Universidad de Alicante

Indique uno o varios de los siete Temas de Interés Didáctico: (Poner x entre los [ ])

[X] Metodologías didácticas, elaboraciones de guías, planificaciones y materiales adaptados al EEES.

[ ] Actividades para el desarrollo de trabajo en grupos, seguimiento del aprendizaje colaborativo y experiencias en tutorías.

[X] Desarrollo de contenidos multimedia, espacios virtuales de enseñanza- aprendizaje y redes sociales.

[ ] Planificación e implantación de docencia en otros idiomas.

[ ] Sistemas de coordinación y estrategias de enseñanza-aprendizaje.

[ ] Desarrollo de las competencias profesionales mediante la experiencia en el aula y la investigación científica.

[ ] Evaluación de competencias.

Resumen.

Se avecinan cambios importantes, cuando no sean ya una realidad, en el trabajo de aula de nuestros centros escolares debido a la progresiva implantación de las TIC en los mismos. Las TIC permiten el desarrollo de nuevos materiales didácticos de carácter electrónico que utilizan variados y diferentes soportes.

Los nuevos soportes de la información, más allá de sus peculiaridades y particularidades técnicas, generan una gran innovación comunicativa provocando de esta forma nuevos entornos de aprendizaje colaborativo. Y la clase de idiomas no podía, y no debía, permanecer inmune a dichos cambios.

Con el fin de adaptarse a las necesidades de la actual sociedad del conocimiento, la enseñanza obligatoria en todas sus áreas y materias, y por extensión los centros escolares, debe desarrollar formas de integrar las nuevas tecnologías de

la información y de la comunicación en su práctica docente diaria.

A la par es necesario también un cambio de mentalidad a la hora de afrontar los tradicionales papeles de alumno y profesor en las enseñanzas regladas por lo que se refiere a los canales de comunicación, así como al diseño de muevas metodologías y prácticas docentes.

Este artículo pretende identificar el rol del docente actual frente a la masiva utilización de las TIC dentro del proceso de enseñanza-aprendizaje, así como los recursos puestos a su disposición para su explotación didáctica. Particularmente nos concentraremos en los casos específicos de los profesores de idiomas y de los recursos de los que éstos se pueden servir.

Por tanto, ahondaremos en este artículo la necesidad de adecuarse a los nuevos tiempos y las posibilidades que el uso de las nuevas tecnologías nos permite. Se enunciarán también algunas orientaciones metodológicas prácticas para poder afrontarlas de una manera seria, decidida, organizada, y estructurada.

Palabras clave: TIC – metodología flexible – recursos multimedia – entornos seguros – papel del profesor – innovación didáctica

Keywords: ICTs – flexible methodology – multimedia resources – secure environment – the role of the teacher – didactic innovation

Abstract.
Teachers are nowadays experiencing important changes, whether they have already turned into reality or not, in the daily classroom work in most of our school centres due to the progressive establishment and incorporation of ICTS. These allow the development of new didactic materials of an electronic nature which use varied and different standings for its carrying into practice.

These new standings of information, beyond their own peculiarities and technical requirements, generate a huge communicative innovation provoking as such new settings of collaborative learning process. Besides, a FL classroom could not, and hence should not, stay away from such changes.

With the scope of getting used to the needs of the actual society of knowledge, the Spanish compulsory education system in all its areas of knowledge, and by extension the whole scholar network, must develop new ways of integrating the new information and communication technologies in its daily teaching practice.

It is also advisable, at the same time, a change of mentality so as to face the traditional roles assumed by both teachers and students in the compulsory stages. This is mainly reflected in the proper channels of communication as well as in the design of new methodologies and teaching practices.

The aim of this article is to set the role of the modern FL teacher when facing the massive use of ICTs in the teaching-learning process as well as all the resources at their disposal for their didactic exploitation. We will mainly focus our attention in those specific cases of FL teachers and the wide range of resources which they can make use of.

Henceforth, we will deepen in this article the need to get used to the new methodological tendencies and the possibilities that the use of ICTs allows us in our daily classroom practice. We will also enumerate some practical methodological orientations so as to be able to face them in a serious, determined, organized, and structured way.

Texto.

INNOVATION AND INVESTIGATION: USE OF ICTs in THE FL CLASSROOM

1. Introduction.

"It is not the technology that makes teaching successful but the care and thought given to the pedagogical integration of these technologies and the dynamics and opportunities that result from it" (Franziska Lys, 1999).

In our modern society, we are currently experiencing a sort of technological revolution that is apparently approaching too fast. So it seems obvious that we cannot, and should not, neglect its importance since we are increasingly being demanded a more reflexive and conscious answer towards it.

The present society is characterized by the increasing use of the information and communication technologies (ICTs) demanding to its citizens a series of personal, social, and professional competences in order to face the imposed changes in the fields of science and economy.

On behalf of this changing world, we are encountering an educative system which places its teaching staff on the edge since they are considered the axis of the change. Therefore it is our duty not to let our schools be the last places to incorporate the new technological discoveries.

As a result, the role of teachers has experienced big changes in the last years. Nowadays, they are not only supposed to teach, but also to help students "learn how to learn". Information is now out there and everyone can access it. To be able to deal with this revolution, to be up-to-date, teachers need to do a continuous professional development.

In the 21st century, some of the tasks that educators have to accomplish are: understand the different learning styles; set goals and accomplish them; motivate students and encourage participation; develop a student-based learning; understand diversity and individual needs; help students use different resources; encourage self-learning and self-evaluation; encourage students´ positive attitudes (values, etc.); research inside and outside the classroom.

2. The Impact of ICT on Learning and Teaching.

There is evidence from research that ICT can help pupils to learn and teachers to teach more effectively. However there is not a simple message of such evidence that ICT will make a difference simply by being used. Findings suggest that although ICT can improve learning there are a number of issues that need to be considered if such technology is going to make a difference.

There has been extensive research into computer-assisted instruction (CAI) and computer-based learning (CBL). One study (Fletcher-Flynn and Gravatt, 1995) into the effectiveness of CAI limited the studies it examined to those that took place between 1987 and 1992 and identified almost 400 reports of research that met these criteria. The impact of the use of computers was then combined statistically to identify the overall impact. In this meta-analysis the mean effect size was relatively small for the five years in question but increased for more recent studies analysed.

This kind of improvement would move an 'average' class of pupils from 50th to 40th in list of 100 classes ranked in order of attainment. This suggests two things: first, it is possible that the impact of computers may be increasing; second, ICT only produces relatively small improvement. Other forms of educational interventions, such as peer tutoring, reciprocal teaching and homework, for example, all produce greater average impact.

In a study of the effect of different types of study skills interventions the average effect would move a class from 50th to the top 30. A study of the effect of thinking skills or metacognitive approaches (Marzano, 1998) indicates the average impact would move a class from 50th into the top 20.

A study by the British Educational Technology Association (BECTA, 2000) found no link between levels of resources for ICT and either reading or mathematics grades at Key Stage 1 in 1999. At Key Stage 2 there was a significant, but very weak, association between ICT resources and pupil attainment. This indicated that ICT curriculum researching was at least 99.5% independent of pupil performance at Key Stage 2.

In the USA, information about computer use from a longitudinal study was analysed (Weaver, 2000). This study also found a very small link between computer use in the curriculum in school and improvement in pupils' test scores, though again the link was very weak which indicates that at this general level computer use makes very little difference to pupils' achievement.

A similar weak link between high computer use and pupil attainment was reported in a preliminary survey for a Teacher Training Agency study in England (Moseley, 1999) though the authors did not interpret this as a causal link, but rather as that more effective teachers tended to use more innovative approaches, or tended to use the resources that they had more effectively. If this interpretation is accepted it suggests that it is more important to think about how computers are used in schools.

This same study also reported dramatic impact on pupil attainment in its 16 development projects in schools. The average gain on standardized tests was 2.8 months progress per month of the project in mathematics and 5.1 months progress per month in literacy. The report states, however, that these gains do not prove that ICT will raise attainment, but rather that "teachers *can* raise levels of pupils attainment when they use ICT to support their teaching in literacy and numeracy".

In these projects the use of ICT was planned to have an impact on particular areas of pupils' learning using research evidence from literacy and mathematics as well as the effective use of ICT. The development work involved working closely with the class teachers over an intensive period using a range of different equipment and software. These projects did not use control groups, but the consistent and significant increase in the attainment of pupils in mathematics and English suggests that where ICT is targeted at specific areas of learning, with a clear rationale for its use from a broad research base, it can have a positive effect.

3. Recent Innovations in the Teaching of the EFL: Using ICTs.

When we talk about innovation in the teaching of foreign languages, we are not saying that we have to reject all the resources which were used before the application of ICTs in education. We need to use both the previous methodology (blackboard and chalk or marker, books, pens, etc.), and also the new technologies: computers, internet, digital blackboards, etc.

When students first get into a classroom and see that there are computers, their reaction is: *Are those computers for us? Are we learning computing?* Behind these questions there is expectation and motivation. And, in the end, it is the students who demand using these new elements in the classroom.

Using ICTs to support the FL teaching-learning process. Using ICTs in the foreign language classroom is a resource that: motivates students; compliments the teaching process; stimulates discussions and writing; helps share stories among students. We can use/make students use the new technologies in the classroom in different ways: by using commercially developed language programs or activities on the web; by assigning specific project works: make the students search for information; by encouraging students to communicate with other students (facebook, etc.).

Benefits and disadvantages of using ICT. Like all the teaching resources we can make use of in the FL classroom, the ICTs have both advantages and disadvantages.

- **Advantages**: among the benefits of using ICTs we can find: repetition of activities; individual and collaborative work; motivation; learn from mistakes; acquisition of IT skills; interactivity; multimedia; authenticity; fun

- **Disadvantages**: there are also some drawbacks of using ICTs in the classroom: IT skills are a prerequisite; software familiarization; technical problems; language problems; quality of language; content: the content is not appropriate for the level of our students or does not apply to the contents we are covering in our unit.

The use of the Internet in schools implies that both faculty (teachers) and educative centres (the schools and classrooms) must experience several changes. On one hand, teachers need to keep updated and know the existence of these resources and their possibilities, and must know how to select the most appropriate ones for each situation.

They also need continuous training in *digital didactics* to know the possibilities of the new electronic devices and services in the internet. On the other hand, schools and classrooms need to be adapted by installing digital blackboard in class, creating new spaces like computer labs (for group work), or implementing a school intranet.

How to select ICT resources. Another important aspect we are to bear in mind when we are analysing different software is the criteria to select ICT resources. We need to evaluate carefully three aspects: the purpose, the design and the content of the program.

- Purpose: students use critical thinking, reasoning and problem-solving skills; provide feedback both to pupils and teachers.

- Design: layout, colour and use of animation should be attractive; user-friendly and easy to use.

- Content: appropriate and relevant to students' interest as well as the curriculum; activities need be appropriate for students' level.

Criteria to select Internet resources. When we evaluate the different resources that we can find on the internet, the criteria to select them are slightly different. This time we need to analyse aspects like the content, the design, and the navigation.

- Content: who wrote the pages? are they experts?; what's the purpose of the pages?; where does the content come from?; why is the content useful for my purpose?

- Design: are there useful headings and sub-headings?; are the resources logically organized?; is multimedia appropriately used?; do the graphics impair the loading of the page?

- Navigation: do all the links work?; dDoes it link back to the home page from other pages?

Useful resources. Hereby we can make a list of some of the most useful resources for its exploitation in the FL classroom:

- Google Docs: A perfect tool to create and share documents. (http://www.youtube.com/watch)

- Issuu: To upload and view digital material. You can create your own library! (http://issuu.com)

- Picasa: An image organizer and an image viewer. (http://picasa.google.com/)

- Facebook – groups: To share files, pictures, create events, chat… (http://www.facebook.com)

- Slideshare: To share presentations and documents. (http://www.slideshare.net)

- Blogger: Free web for creating blogs. (https://www.blogger.com/start)

- Youtube: A video sharing website. (http://www.youtube.com)

- Skype: A software that enables different types of conversations. (http://www.skype.com)

- JClic: Applications to create educational activities. (http://clic.xtec.cat/es/index.htm)

- Delicious: A social bookmarking for sharing and storing. (http://delicious.com)

- CMapTools: A program to create concept maps. (http://cmap.ihmc.us/download/)

- Digital Blackboard: An interesting resource for teachers, that offers many more opportunities than the traditional blackboard. (http://dewey.uab.es/pmarques/pizarra.htm)

- Multimedia stories: A combination of text, clips, audio, photographs… so that stories become even more fun! (http://ordenadoresenelaula.blogspot.com//como-gestionar-un-proyecto-.htm)

- Multimedia PowerPoint: Power point is another way of creating interactive multimedia presentations. (http://www.artic.ua.es/sites/u38/sitio401/)

- Webquest: it is "an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet." (http://www.dgde.ua.es/wb/webquest/)

- Hot Potatoes: Another system to create educational activities. (http://hotpot.uvic.ca)

- ComicLife: A computer program that provides you with different templates so that you can create your own comics, picture albums, etc. (http://comiclife.com/)

4. The Future of Education.

Internet has become a new platform for users because it has become easy for anyone to create, upload and share information with Web 2.0 technologies and we are more connected than ever. It's an umbrella term for developing social software applications such as social bookmarking, pod casting etc. which facilitates creativity, collaboration and sharing between users. Web 2.0 is read and write web. It's real time and live connection between users and a good revolution of Web 1.0. It enhances creativity, communication and collaboration; the words we use in education. We all use Facebook, Youtube, Google or blogs that let us create community. They are all Web 2.0 tools we are familiar with.

As teachers, we are about to have the biggest discussion on education: How do we learn? Some of us have already explored the potential of social networking, media-sharing and other Web 2.0 tools though they are not designed specially for learning; and it's getting more popular everyday among our students. They have been using Web 2.0 for a long time. They write on blogs, upload photos and videos, build personal profiles and interact with each other everyday. They all have their Myspace and Facebook accounts and this makes it easier for us to use this technology at schools because our students are familiar through their own experiences and they are already motivated to use them.

Here are some reasons why to use Web 2.0 in our classes:

- It increases the creativity. Any student can write, film, and publish a video or an audio. Youtube and Google video are used by our students everyday.

- It's collaborative. We can easily create social networks and communities of interests. I believe Wikipedia and Ning are the best examples for this and they are all free.

- It promotes student centred learning. It allows users to become the producers of the knowledge. It enables us to share our work with other audience. For example, *E-pals project* is considered to be the world's largest online classroom.

- It provides many opportunities for language practice. Students can play with language and the context and it is more informal.

- It engages students. In fact, technology is always engaging. When we use these tools in classes, it doesn't seem like a required assignment for students. It also helps us to motivate our shy students to participate more in our lessons and the willingness to create and share is a great opportunity to learn and participate.

- <u>It creates freedom and independence</u> in learning which we can't find in our traditional education systems. Internet is available 24/7 and this encourages our students to share information to a greater extent which is not available in our classes. It also reminds us that learning is not only limited to school boundaries.

- <u>We can find more authentic audience</u>. When students do paper work, teachers or other students can see it but when it is online, many other people can read, comment and contribute so Web 2.0 improves communication skills because students have a wider audience.

As teachers we need to find our own ways to use these technologies in our classes and consider the security issues and the copyright. I believe new technologies will come up but teachers will always be in the centre of education because our students will need our guidance more than ever. Teachers will be the ones who encourage and motivate the students to become better learners.

Web 1.0	Web 2.0
Britannica Online	Wikipedia
Personal websites	Blogging
Page views	Cost per click
Publishing	Participation
Directories (taxonomy)	Tagging ("folksonomy")
Stickiness	Syndication
(Source: Adapted from Tim O'Reilly, 2003)	

5. Conclusions.

All these new technological appliances are not, so to say, the cure-all for all the educative situations in which to develop the daily practice and the educative intervention. Nonetheless, they open enduring paths to new ways of intervention prior to anything previously done or tried before.

The use of ICTs is a new concept born as a countermeasure to the traditional web format, or even to the common and traditional uses of the Internet. Henceforth, it is important to notice hereby that it is a concept rather than a product.

From a wide perspective, the main contributions of ICTs to the educative field are gathered together in the following seven points:

1. Individual outcome of contents. That refers to the growing amount of content generated by the individual user. It promotes the role of teacher and students as active creators.

2. Benefit of the community effect. We can learn from and with other users, sharing our knowledge.

3. Benefit from the huge participation of the services offered with the ICTs.

4. Use of easy and intuitive tools without any technical requirements.

5. Use of open contents and free software. It implies a mixture of data and free spirit of innovation.

6. Creation of learning communities characterized by a common topic or issue.

7. Web effect. It moves from the individual study to the co-operation between peers.

Bibliografía y Referencias.

Barberá Gregori, Elena. *Cómo valorar la calidad de la enseñanza basada en las TIC*. Barcelona: Graó, 2008.

Barbolla Camarero, Domingo. *Cultura 2.0.: técnicas de investigación en entornos digitales*. Barcelona: Editorial UOC, 2010.

Cánovas Méndez, Marcos. *Acortar distancias: las TIC en la clase de lenguas extranjeras*. Barcelona: Octaedro, 2009.

Domínguez Miguela, Antonia. *Guía para la integración de las TIC en el aula de idiomas*. Huelva: Universidad de Huelva, 2006.

Lara Navarra, Pablo. *La accesibilidad de los contenidos Web*. Barcelona: Editorial UOC, 2006.

Marín Díaz, Verónica. Las TIC y el desarrollo de las competencias básicas. Madrid: MAD, 2009.

Pagés Santacana, Anna. *E-teaching: teoría de la función docente en entornos educativos virtuales*. Barcelona: Editorial UOC, 2007.

Roig Vila, Rozable. *La articulación de las TIC en la educación*. Alicante, Universidad de Alicante, 2008.

Romero Granados, Santia. *Introducción temprana a las TIC*. Madrid: MAD, 2007.

Sánchez Rodríguez, José. *Enseñanza con TIC en el siglo XXI*. Madrid: MAD, 2008.

Sales Arasa, Cristina. *El método didáctico a través de las TIC: un estudio de casos en las aulas*. Valencia: Nau Llibres, 2009.

Salinas Ibáñez, Jesús. *Innovación educativa y uso de las TIC*. Sevilla: Universidad Internacional de Andalucía, 2008.