Improving ICT in the teaching process:
An English Elementary Course

» Resumen

Esta investigación trató sobre la introducción en la enseñanza mediada por las TIC del curso Ingl*és I en la Universidad de* Pamplona dentro de un enfoque constructivista. El proyecto conto con varias fases: a) diagnóstico de la necesidad de implementar el uso de las TIC en el curso de Inglés Elemental; b) determinar qué elementos debería tener el modelo web; c) evaluar el diseño y el enfoque utilizado. Para el diagnóstico de necesidades se realizó una muestra homogénea de 18 estudiantes del Programa de Lenguas Extranjeras. El modelo fue diseñado con documentos de la web sobre modelos didácticos para la enseñanza de inglés en línea. Los resultados determinaron que: a) para los estudiantes de primer semestre de Unipamplona, el método de enseñanza mediado por TIC constituye una herramienta que facilita el aprendizaje de inglés; b) los programas hasta ahora utilizados presentan una tendencia conductista. Los resultados indicaron que el modelo didáctico usado ofrece bases para introducir la enseñanza del inglés de una manera distinta en la educación superior.

Palabras clave: enseñanza, TIC, inglés, constructivismo, programa

» Abstract

This research paper dealt with the use of ICT in the teaching of English I at the University of Pamplona using a constructivist approach. The project had many stages: a) a diagnosis of the necessity to apply ICT in an Elemental English course; b) to determine which elements and restrictions a web model should have, c) to evaluate the instructional design and the approach used. Samples of 18 foreign languages students were taken for the need analysis. The model was designed from pedagogical web files and documents used for online ESP course. The results established that a) the teaching method using ICT was an important choice for first semester students at the University of Pamplona, b) the previous programs presented a behavioral tendency. The results

showed that the didactical model offers a base to teach English in a different way at a university level.

Keywords: *teaching, ICT, English, constructivism, program.*

» Introduction

We currently live in the "information society", where new Information and Communication Technology (**ICT**) in particular, are a significant influence in all levels of the educational world. Almost all actions executed by human beings are being aided by computers, and at the same time make you feel his undeniable influence in the educational environment. The access to information through computer networks has transformed our experience of the world and the value of the personal knowledge.

ICT has provided significant changes that translate into new ways of imparting knowledge. This concept states that the teaching-learning process is obtained in part from the interaction of the student and the professor, the freedom in the time management of learning, the use of computers individually or in a group, the economy in all the cases (geography, time and money); and, on the other hand the recent guidelines and regulations for the introduction of the Internet in education in Colombia, which considers it in public interest as a means for the study of globalization and an invaluable tool for access, dissemination and communication of ideas and knowledge.

Among the factors that could affect the academic performance of a student of English I, we will distinguish those that are not modifiable by the institution, but yet were part of the context of the learning situation, such as: age, sex, family status and work situation, certain behaviors towards certain subjects and/or teachers, and the variables that are susceptible to change, such as physical space and study habits.

The integration of ICT into the classroom is clearly a challenge faced today by teachers of all levels, and not only because we consider that it is necessary to adapt our methodology to the new curriculum, which includes the increased use of ICT as a procedure, but also because it is obvious that the ability to motivate an audience that are increasingly more "computerized", such as are our students, is linked to the use of resources and more innovation in a way that is more related to their daily reality.

However, we face some difficulties which we cannot ignore. First of all, the lack of media centers currently up to international standards, since it is impossible to integrate something you do not have. However, even when the material resources are available, other questions are being raised. In general, even among teachers more determined to use a computer connected to the Internet in the classroom, a certain fear can be detected, due to the enormous amount of information available, the objective pursued in during the class session was diluted, and the students ended up getting lost in the fabric of the network, out of any control by our party.

Other doubts that we are sometimes confronted with are content use, how to promote the involvement of students, or

how much they know about computing in comparison to us. Foreign languages are provided especially for integrating ICT', since the teaching of a language allows us to teach virtually any topic. English teachers have been working for a long time with all kinds of materials, from audio and video up to the so-called *authentic materials*, everyday elements that have served as an excuse to work on linguistic or cultural aspects.

Now we could ask that both, teachers and students have at our fingertips an immense spectrum of resources from around the world, to do otherwise what we were doing. In our opinion this is not enough. We think that we should change our vision and adapt our methodology to embrace the new media. Nevertheless, at least it's a start, and in this field more or less we are all doing exactly that ... starting.

» Justification

A factor that justifies this research paper is the need for universities to open their doors to virtual knowledge. The UNESCO commission said:

> "In a world in which the cognitive resources each day will have more importance than the material resources as factors in the development, necessarily increase the importance of higher education and the institutions dedicated to her. In addition to causes of innovation and technological progress, the economies increasingly require professional skills that require a high level of studies." (Delors, 1996).

In this way the university would once again be the meaning of his intellectual and social mission in the society, being in a certain way one of the guarantors of the educational process.

During 2007, the Ministry of National Education, in partnership with the Universidad de Los Andes, undertook a study to diagnose the level of progress of the Institutions of Higher Education in the processes of using and incorporation of ICT. As a result of this, the need was identified to strengthen the strategic plans for the educational use of ICT in the institutions. They addressed the strategic planning for the incorporation of ICT in educational processes, relying on a number of resources and tools available, with the collaboration of other IES accompanied by experts, IES counselors, a general team coordinator and following the outlines of the guidelines formulated for this purpose.

At a national level, it is relevant to display the reflections of the National Minister of Education information and communication technology not as an isolated element, but as a complex technological bearer of a new paradigm for the organization and operation of the society and constrain our manner of conceiving the world and to think, feel and act in relation to society and its problems, one of which is higher education.

In 2014, a study showed at the Symposium for the instruction of computer-assisted language (Symposium of the Computer Aided Language Instruction Consortium - CALICO), where it described the different ways of interaction and communication features of the internet. They mentioned that one of the main contributions to the internet and

other technologies has been communication through computers or Computer-Mediated Communication, (CMC).

CALICO classifies this type of communication in two modes: synchronous and asynchronous. The first relates to those interactions between users in real time (forums, chats), while the second brings together the exchanges that occur over time, such as the deferred electronic mail discussion lists. Both forms of communication are explained under a behavioral perspective. For this paper, this history is relevant for the classification of communication via computers.

In addition, this research paper is justified since it tries to solve a specific problem, namely that of updating the teaching of English for specific purposes (ESP), mediated by using ICT. Today, this branch of educational work is outdated, and the introduction of this new paradigm is an important step within the training of teachers as leaders and researchers, especially if it aims to produce local effects, subsequently regional, before extending the results to a national level and eventually spreading beyond the borders of the country.

» Theoretical Framework

Constructivism has deep historical roots. The learning theory of Constructivism evolved from the extensive study of cognitive development by Swiss psychologist Jean Piaget (1896–1980) and the Russian psychologist Lev Vygotsky (1896–1934). Their study of development provided the foundation for the psychological theory of constructivism. Constructivists believe that children develop knowledge through active participation in their learning.

Constructivism is an innovative strategy in which students construct their knowledge themselves through interaction with eachother on the basis of previous experiences. It is student-centered rather than teacher-centered in which teacher acts as a facilitator. Conventional Teaching Approach has remained dominant at the secondary as well as senior secondary level in our education system in which learning has focused on teacher centeredness and students are passive receivers.

Constructivist Strategies for Teaching English Language Learners provides a culturally responsive approach that builds on students' experiences and strengths in which ICT plays an important role to autonomy work.

The essential core of constructivism is that learners actively construct their own knowledge and meaning from their experiences (Fosnot, 1996; Steffe& Gale, 1995). Some other philosopher such as Maria Montessori (1870-1952), Wladyslaw Strzeminski (1893-1952), Heinz Von Foerster (1911–2002), George Kelly (1905–1967), Jerome Bruner (1915–),Herbert Simon (1916–2001), PaulWatzlawick (1921–2007), Ernst von Glasersfeld (1917–2010), Edgar Morin (1921–) and Humberto Maturana (1928–) also contribute in the history of constructivism. (Sharma and Poonam, 2016, p. 788-799).

» Methodology

The research is documentary-type descriptive and exploratory, since the objective is to develop activities for the teaching of elementary English through the web. The research technique used is direct observation.

Elaboration of a sequence of practical work and the development of the sequence involved several stages:

1. Creation of the hosting of the web page platform for the course in the English language.

2. Digitization of the programmatic content of English I.

3. Development of aid and annexes with basic content depending on the students' needs.

4. System Testing: verification of the contents and registration of students

5. Proof of the connection and access to the materials and tools

Necessary information was gathered through three tools: a survey, a pre-test and a post-test.

» Implementation of the project

The experimentation of the present study was conducted as follows:

1. Execution of experimentation: Was carried out after having built the web page in the Unipamplona web portal.

2. Administrative obligations: discussions with the relevant authorities, to perform the experiment of the online course.

3. Previous Training: This training consisted of an explanation and appropriation of how the portal works and access to the content in a virtual way, which was carried out by managers Jimmy Estévez and Sergio Bateca, the Knowledge Management Unipamplona group under training in virtual environments under the institutional policies of PlanEStic.

4. Development of the survey: based on the requirements of the students, its intention was to investigate the level of preparation in the field of information technology.

5. The development of the pre- test: it was made in the first classroom session of the course.

6. Organization of groups: For this type of experiment, it is necessary to implement collaborative learning, rather than hierarchical, with a view to achieving the completion of the proposed objectives.

7. Practical work during the course: A series of exchange of communications in real time or asynchronously, which clarified any doubts and promoted the analysis to other issues concerned with the program.

8. Post-test: this activity had duration of 30 minutes and was conducted without drawbacks.

Results

Of a total of 18 students enrolled in list, the majority, (75 %), showed enthusiasm for the modality of teaching using ICT tools, stating that they liked not having to travel to the university to get information or contents of the course.

Meanwhile, 20 % expressed some difficulty in having to work under this modality. This number represents those individuals who observe this paradigm shift as something that must be done but would rather it not be tried out on them. The rest of students dropped out or were not in the introductory course before submitting the pre-test.

Conclusions

The difficulties encountered by the students during the development of the practical work of the online course was lower with regards to the implementation of the assignments when done on site, that is, at the university.

Also, the factors that can briefly prevent both synchronous and asynchronous connections, i.e. server and money, were reduced with the use of collaborative learning. Students do not rule out any of the two teaching methods (traditional and virtual) to carry out their learning of English language.

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