Tecnologías de Información y Comunicación (TIC) y el Plan de Intervención en Investigación (PII): experiencias en el Departamento de Sociología de la Universidad Autónoma Metropolitana unidad Azcapotzalco

Information and Communications Technology (ICT) and Research Intervention Plan (RIP): experiences in the Department of Sociology of the Metropolitan Autonomous University, Azcapotzalco Unit

Informação e comunicação (TIC) e plano de intervenção Investigação (PII) de informação e: as experiências no Departamento de Sociologia da UAM Azcapotzalco

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Resumen

El propósito de este trabajo es reflexionar sobre las prácticas de consumo de nuevas Tecnologías de Información y Comunicación en las ciencias sociales de la UAM-A mediante el análisis de evidencias pedagógicas, utilizando la instrumentación del Plan de Intervención en Investigación en dos materias del Departamento de Sociología: Economía y Seminario de Sociología Rural V Movimientos sociales en el campo mexicano en el trimestre 2015-I.

Palabras clave: Plan de Intervención en Investigación; Aprendizaje Colaborativo; Formación de Capacidades; Trabajo Colaborativo.

Abstract

The purpose of this paper is to reflect on consumption practices of new Information and Communications Technologies in the social sciences of the UAM-A through the analysis of teaching evidence, using the implementation of the Research Intervention Plan in two courses of the Department of Sociology: Economy and Seminar of Rural Sociology V Social movements in the Mexican countryside in the quarter 2015-I.

Key Words: Research Intervention Plan, Collaborative Learning, Formation of Capabilities, Collaborative Working.

Resumo

O objetivo deste artigo é refletir sobre as práticas de utilização das novas Tecnologias de Informação e Comunicação nas ciências sociais a UAM-A, analisando provas pedagógica, utilizando a instrumentação da Research Plano de Intervenção em duas disciplinas Departamento sociologia: Economia e sociologia Rural Seminário V movimentos sociais do campo mexicano no trimestre 2015-I.

Palavras-chave: Plano de Pesquisa de intervenção; A aprendizagem colaborativa; Capacitação; Trabalho colaborativo.

Introduction

During the years 1980 and 1990s, developed countries began to adopt new technologies in higher education through different programs, that consisted in introducing computer courses to improve the skills in technology, and at offer resources and education support in the processes of teaching learning, implementing tutorials, software, applications for word processing and computer programming. In the years ninety is included the internet,

applications multimedia, simulations and animations to facilitate the conceptual visualization, the exploration and the team work, achieving 90% of the schools in developed countries to have equipment and internet connection (Jara, 2008).

In America Latin the incorporation of new technologies was more recent and began with the distribution of computer laptop to students and teachers (Astropulous, 2012). Initially the use of computers was performed as an extracurricular activity via a laboratory and a connected classroom. The computer lab was the first institutionalized way of introducing computer in schools. Gradually the use of computers covered cross-cutting knowledge areas, and subsequently, was constituted as a new medium of communication social. In this process it began to experiment with desktop computers in classrooms wired to the internet, multimedia resource center, very useful for results presentations or exhibitions with programs such as PowerPoint. In this mode we included digital content and multimedia, distributed through television channels, specialized portals and online training platforms. What defines the network access model. The most recent has been the strategy of "cloud computing", for example, with the Google platform.

After using internet connected computers he went from the special discipline to the design of group activities, initiating collaborative work in the classroom. In the latter burst into the netbook scene, with the advantage of being mobile devices with access to broadband internet. The technological leap was determined by the arrival of internet and mobile technologies that were incorporated into the teaching and learning activities. This raised some classrooms network, known as digital classrooms or classrooms connected. You can also include the mode netbook per student and wireless internet. Another embodiment constitute the "mobile" laboratories, operating from a netbook or tablet computer type. technology is available when the teacher requires, regulating its use according to the times, strategies and curriculum proposals. Finally cell phones are widespread, a technology widespread.

Several problems have slowed the process of institutionalization of new technologies: the problem of connectivity and equipment; coverage and the companies or institutions involved in providing such services; the backlog in teachers to assimilate these technologies; the choice of technology and educational software that leads to an open

market option; the difficulty in deciding to work with specific software or cloud; technological resources and the criteria of a political nature; the use of new technologies by some political leaders for electioneering purposes; the preference of selected companies acting as suppliers that eventually become a monopoly of such services. In short, there are many variations that hinder decision making between pedagogical and technical aspects of the education sector, which usually benefit large monopolistic companies such as Microsoft and Apple (Callon, 1986, quoted by Artopoulos 2012).

So, we ask the following: How ICTs influence in changing educational paradigm? What are the experiences of Intervention Research Plan? We will expose some of the elements that explain the main features of ICT in education, in particular the experiences of implementing the Plan of Intervention Research for specific subjects students enrolled in undergraduate sociology.

ICT AND EDUCATIONAL PARADIGM SHIFT

Pedagogy provides technology to social criteria that influence the control mechanisms and validation of new knowledge changes. In this sense are not the technologies that allow us to understand the social, economic, political or cultural problems the teacher in the classroom is the pedagogy that gives meaning to technology in the new contexts of the knowledge society (Garcia, 2012).

Constructivism has a psychoeducational approach whose main idea is that the subject build knowledge through interaction holding with the social and physical environment. This approach is the one that appears in the educational process, in which the student is a participant or protagonist. The constructivist approach has contributions from authors like Piaget, Ausubel and Vygotsky, framed in the early twentieth century and are linked to current theories of information processing (García, 2012).

From the point of view of the socio-historical-cultural theory, intelligence is not an individual possession, but a relationship between the individual and the object of knowledge, which arise as language mediators. This is a cultural mediator because it allows

the individual to receive information from their environment and then produce new information. Another mediator in the process of student learning is the teacher who assumes the role of guide and mentor the student in the learning process. Currently they include other media technologies and have a presence in the teaching-learning process, causing it to be more complex.

Constructivist learning, according to Enrique García, is based on the essential teaching is the active participation of students in the learning process, particularly with regard to the ability to solve problems, the development of critical thinking and deployment of the creativity. From this way of thinking it can be applied in any classroom, whether traditional or virtual, both remotely and in that program based on teaching computer skills (Garcia, 2010, p. 7). Within the constructivist approach, the teacher's role is to be a promoter of the student's abilities to learn by himself. It requires the teacher, in the present life, to acquire the skills to learn, individually and collectively with other teaching skills.

Lev Vygotsky Sionovich mentions the relationship between learning and psychological development, which are the product of social interactions between student and teacher, who engage in significant activity within a social historical context (Vigotky, 2000). The way the interaction process is done is through the scope that is called Zone of Proximal Development (ZPD), which can be understood as a space of multiculturalism where "knowledge of the student are used and introduce new codes in a shared work between teacher and student "(Garcia, 2010, p. 27). In other words, learning is a social phenomenon and therefore relies on existing knowledge in the social context, for example, a group of students in interaction, which leads to the individual cognitive development of the participants. Therefore, achievements or abilities are expressed first interaction or social and then individually.

The predominant educational paradigms essential confer a weight to the transmission of information. The application of new technologies in the educational field questions that paradigm, so the actual weight falls on the problem of capacity building towards a creative attitude, problem solving and values formation.

The current pedagogy emphasizes:

Autonomy, responsibility of students with their learning and their relationship to knowledge creation as a central learning process, collaborative gestation of learning, the ability to learn with others by sharing knowledge, critical access to sources of information and content from different perspectives, cultural diversity of learning to live together (Artopoulos, 2012, p. 405).

There is no real opposition between the previous and the current pedagogies supported by new technologies. In reality there is an open dialogue which operates as feedback. In this sense we can say the following: educational practice view from constructivism is in a constant process of transformation, changing, changing by the action of the individual over the world. The thought is not limited by borders, which he builds or destroys, but is rebuilt, according to current scientific model. An important contribution of constructivism is the implication of the process of self-reflection, permanent correction, under construction and reconstruction also permanent.

Another key element of the new educational paradigm is called collaborative learning. This can be understood as "the process in which change the skills, knowledge and work, as long as one has to learn new experiences" (Sevillano, 2005, p. 37). That is to say, is the activity resulting from the application of certain capacities of subjects (student or teacher) and the use of methods, techniques of presentation of content in various media. Ausubel, in his constructivist approach, experience suggests that this is subject to the context of what the student already knows. Mentioned types of meaningful learning, because learning is not a simple passive assimilation of literal information; the subject and structure transforms from an internal perspective where the study materials and external information are interrelated and interact with the patterns of previous knowledge and personal characteristics of the student. However, these types of learning are not only individual, but can also be collaborative.

Johnson, one of the experts in this area, considered that cooperation appears related to the development of social skills. He defines collaborative learning as:

The set of methods of instruction or entertainment use of groups and provide strategies for developing mixed abilities (learning and personal and social development). In collaborative learning each group member is responsible for their own learning, as well as the remaining members of the group (Johnson et al., 1990).

The cardinal point made by Johnson is to recognize that the isolated individual can hardly solve a problem, especially if this problem is a complex problem. With regard to cooperation, it implies the responsible participation of members, while monitoring entails certain standards of collaboration and behavior (Driscoll and Vergara, 1998, in Artopoulos and Kozak, 2012). individual responsibility, positive interdependence, collaboration skills, promoting interaction and group processes: to establish collaborative learning five aspects must be present.

Collaborative work involves a process of collective construction of knowledge. This aspect breaks with the traditional idea of innovation and creation in the manner of the inventors of the nineteenth century as individual and isolated action. By contrast, collaborative work even supports single super while working and provides networking expertise collaboratively. In addition, collaborative work is facilitated thanks to new communication technologies that enable communication among members, interaction synchronously or diachronic, the opportunity of creations, works or shared scriptures, and so on. In all these cases, the technology is revealed as a powerful medium that facilitates interaction network.

Nicholas Burbules explains that the possibility of "learning everywhere" is the ubiquitous learning. This involves the creation of learning environments in the classroom that complement the physical and temporal space of the classroom aided by electronic means, with spaces outside the classroom and support mobile electronic means (Burbules, 2001). This raises interesting questions: what is taught in school today? When the teacher is no longer responsible for transmitting information and students can learn everywhere outside the classroom, the main learning is done in relation to peers.

Ubiquitous learning also allows addressing the problem of the flexibility of the diversity of styles and rhythms of student learning so keep groups together and learning space is extended to remote locations and still maintain the sense of class. Moreover, the ubiquitous

learning to connect classroom content with problems of "real world", so that better contextualize knowledge.[1]

A step between the traditional model and the new model may be the existence of virtual environments, which can complement traditional classroom and virtual classroom outside the framework of the class. An essential element in education are teaching resources that the teacher carries out its work.

The education system transmitters increases the diversity of instruments reality, for example, digital or electronic, in addition to traditional books and blackboards; however, they do not lose their force and presence in education. Technological development opens new perspectives and needs related teaching methods and new challenges.

The medial didactic "is a structural process that tries to recover and reproduce autonomously relevant experiences" (Sevillano, 2005, 293 p.); as a process, should settle for ways to create learning environments and new areas of competence and experience a new culture of teaching and learning, vision of constant training, extracurricular autonomous learning with media. This was not just about teaching to work with the media, but also to do analytically and critically as the media not only channeled messages but also involved in the production thereof. The main point is the media as protagonists of multimedia learning environments.

Another key concept is competences. This has become the axis which rotates the quality management of education and training processes are oriented: teaching, research and extension. Also, it has been transformed into a means of reducing the technology gap between developed and underdeveloped countries. The powers are defined from a socioformativo approach as "integral actions to problems of context with idioneidad and ethical commitment" (Tobon and Garcia, 2008, p 47, cited by Garcia et al, 2012, p.3...) . The authors establish various criteria regarding the above definition.

For comprehensive action it refers to a systemic and unfragmented tissue which aims to carry out activities and problem solving in different contexts: disciplinary, social,

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[1] Lo anterior resulta de mucha utilidad sobre todo para solucionar problemas como la tendencia a la obsolescencia de los programas de estudios, o bien a la actualización de problemas actuales o recientes.

environmental, scientific and professional-labor. also it involves the affective-motivational dimension, which refers to attitudes and values with cognitive dimension, factual knowledge, concepts, theories and cognitive skills; and dimension performances and procedural and technical skills. Taken together comprise the three dimensions: affective-motivational = know being; the cognitive dimension = know know; and actuational = knowhow (Tobon, 2009a, cited by Garcia et al., 2012, p. 3).

Troubleshooting the context are meaningful and relevant context problems. The suitability relates to consider criteria in order to determine the quality with which an activity is performed or a problem is solved. For ethical commitment it means that in any action in any kind of context and for any purpose you have, the human being must consider whether it is appropriate or not considering their values and social imaginary.

Training based on the notion of competence has as main axis form for the execution of professional activities, but also educate to learn to analyze and solve contextual problems, thereby applying a research approach. The competence approach avoids falling into a productivist orientation according to the dictates of the market and maximum gain. By contrast, the competence approach from a socio-educational approach leads us to reassess the human, social, environmental, physical, labor and production reality. In this reappraisal recognition or social subjects acquire the vital responsibility to create a more united world with themselves and the planet.

However, there are two different types of competencies: generic and specific. Generic skills are common competences to occupational or professional branch. Instead, specific skills are specific to each profession and give identity to an occupation. In our case we will discuss the specific skills in the social sciences.

In education, training of teachers and students presents many challenges. According to Maria Luisa Sevillano (2005), must be made in the media plan as part of the preparation of personality. The formation of the media develops in a reciprocal manner between man and the world; that is, man builds and establishes a critical distance from media and technologies and, on the other hand, it helps to have a responsible attitude towards them.

Sevillano proposes to consider that, thanks to digital competence in teaching teachers should be able to establish, with the help of technology, environments of teaching and organized learning open learning opportunities, education and training when faced with problems of life and learning difficulties. Digital skills are formed by the audiovisual comprehension, ICT literacy, and the combination of both is to complete the digital competence as a technological convergence and digitization of all informational formats: text, image and sound.

The competition promotes digital literacy students and teachers are creators and producers of media messages in different languages and communication, training that facilitates a better understanding of the possibilities and limitations of technical and communication each medium.

Integrative Project and Research and Intervention Plan

In order to establish a relationship between learning processes and skills in social science, educational planning strategy Project Integrator is used. Project Integrator will be the teaching strategy for developing proficiency of students of sociology at different levels of education within the formal framework of the established curriculum.

The first element to form and evaluated by an integrated project will consist of the sequence on various aspects of the context of the integration project and that comprise several stages: diagnosis, context, approach, development and closing. The diagnosis defines the initial state in which the teaching practice was done and further questions. Investigates the context, and the approach defines the teaching strategy proposing a justification while formulated questions: what is the problem and it will serve hypothetical alternative solution? (General and particular hypothesis), what methodology will be used in the research process ?, what is the purpose of the training plan ?, what topics or content of a field of knowledge, training field or subject will be addressed? , what competences support the teaching-learning process ?, what computing resources are to be used ?, what virtual classroom will be developed ?, what axis (s) of development addresses? The development of the following questions: by what project and what teaching situations, case study,

problem, or other globalist methodology will be developed? Finally, there is the closure. Here we contrast the evidence to the hypothesis. Define the limits and scope of the investigation, we drew up final reports and draw up a Web page with individual and team results, while serving to evaluate the results of the application of competences in innovation of teaching practice.

The results of a practical implementation of a Plan of Intervention Research that were used in two different subjects of Professor Armando Sanchez Albarran in the quarter 2015-I are set: the economics and the subject of the Seminar V of Sociology Movements rural peasants in the Mexican countryside. In both courses it sets out a questionnaire online to find out the student profile and also another evaluation to probe what kind of new technologies used preferably students.

MAP 1: Research and Intervention Plan

Diagnosis

The diagnosis showed the fact that sociology students of both subjects had a higher profile for linguistic and academic skills. Moreover, the increased use of technology consisted of software for word processing and social networks. With this diagnosis we decided to use the Google platform as a teaching medium of instruction in the classroom, which meant that each student would have a computer with internet**.**[2]

During Peasants Movement joined by nine students who were studying the subject of Rural Sociology Seminar V: peasant movements in the Mexican countryside. The original program was updated material as it has a backlog of more than twenty years. Usually students just the PowerPoint package used for exhibitions, although there are areas in which no use. Due to the characteristics of the course it was proposed from the beginning the development of a video.

Matter of Economics II Introduction to macro- and microeconomics joined by about 25 students enrolled in sociology in the fourth quarter the subject of Economics II. In order that students find that a significant content of matter collaborative work of hemerográfico type is made as to the economic crisis in Mexico. This activity was proposed to present on a website. At the beginning of the course, students were accustomed to the classical field of transmission and no active participation. Whereas each student has a PC quipo was used in each class with practical exercises. During the process each student created an account in Google and initially exhibited with the PowerPoint program each student was sent to then use Google presentations.

The main problem is that teaching in the Department of Sociology hardly uses computers as the rooms were not designed for this: only about 10 rooms, of about 50, have computer equipment with internet. From the above it follows that it is necessary to innovate teaching practice, however, there are several problems in university classrooms: teachers do not have adequate training, not enough equipment and rooms have not been adapted for this purpose.

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[2] Los alumnos contestaron un cuestionario en línea para evaluar el perfil de habilidades individuales y de grupo dando cuenta de varios perfiles: prácticos, lingüísticos, académicos y tecnológicos.

Context

Of course, the educational level is higher education, specifically students of the Bachelor of Sociology found in the 4th quarter and 10 for matters of economy, with 24 students, and Social Movements, with 9 students. The place is the only building D, with computer equipment connected to the internet (one student per computer). The application was in the quarter 2015-I.

Propose

Justification. The main obstacle to overcome is the inertia of individual work as the same model UAM is one where each student develops their own educational path choosing subjects according to their interests, however, this impairs the ability to create groups and networks collaborative work. Generally we start from the assumption that more information-training, the greater the motivation in students. As a particular hypothesis, in the case of matter of peasant movements, the link between the cognitive aspects (which should know the current peasant movement); evaluative aspects (the criteria for reading, and exhibition); affective aspects (issues that motivate students more or feel more identified), will allow better performance in class, motivation and effort to make a collaborative work. As a particular hypothesis, in the case of the subject of Economics II, the link between the cognitive aspects (what they should know the current peasant movement); evaluative aspects (the criteria of reading and exposure); affective aspects (issues that motivate more students or those who feel more identified), will allow better performance in class, motivation and effort to make a collaborative work.

The purpose of the training plan was different in each subject: In the field of rural sociology the purpose of the Training Plan was to prepare students in the kind of debates that are currently handled in specialized in social movements Congress. In the field of economics the purpose of the Training Plan was to sensitize students about collaborative work. Especially overcome the inertia of the practice of copying and pasting, by investigating discuss + + + creatively participate produce a document for the Web.

Depending on the contents of the subject field of knowledge were chosen. The content of the field of rural sociology is: I review the main theories of social movements and resource mobilization; II peasant movements in the seventies and eighties; III The change of economic model and the new peasant movement; IV The anti-globalization movements in the field in the XXI century. For the matter of Rural Sociology Seminar he raised a Website of matter: (https://sites.google.com/site/armandomovimientoscampesinos/). In the field of economics the content is as follows: I Basic Concepts; II Introduction to macroeconomics; and III Introduction to microeconomics. (Https://sites.google.com/site/cursoeconomiauam/): For this purpose, a Website of matter of economics that serves as a connection between teacher and students was developed.

In the case of competences, it was decided induce students to the resources of the Google platform that operates in the cloud and has many tools: word processors, spreadsheets, drawings, presentations, video, news, calendar, videos, seekers, among others. But he also worked with the MoviMaker software with which videos are produced and, finally, building a Website and team staff. The first task was that each student opened an account with Google to facilitate communication with the teacher and among the students themselves in order to carry out collaborative work. At the same time he had the Virtual Classroom services offered by the university through which students have access to the program and examinations. Some of the advantages of collaborative work result in students learning to be, to live with others, to live with the environment, to create and culture, and to know the universe.

Development

Development was to implement various learning strategies: Making a Website with the contents of each subject students; preparation of documents in Google docs; online information retrieval to improve and clarify the examples in class; concept mapping; Google Presentation preparation for the exhibition of students. Students conducted an exercise video reporting on two axes: a video of # # Yosoy132 and other Yosoy43, which are available on youtube. the educational status of development of a hemerográfico work

was used in the field of economics. In this case it should be explained that the hemerográfico work is a collaborative effort type, because first each team makes reading and classification of a month of daily La Jornada about five items: agricultural crisis, industrial crisis, crisis services, immigration crisis and social crisis. Second, after students team reviewed this month, exchange information with other teams. Third, after each team has the information of your item, for example, industrial crisis, every month, usually last five months, then prepare an analysis of five pages, a chart and a base with complete news of her item.

Evidence possible to verify the working hypotheses for each subject. In the field of rural sociology it can say that the particular hypothesis itself is met as students were able to "enter" on the matter. This was demonstrated by the type of comments at the end of each exposure, as well as the quality of the work produced where they recovered the theoretical proposal. The theoretical proposal was to recover the two prevailing theories for the analysis of social movements and the theory of resource mobilization. Some comrades attended events YoSoy132, and a student attended an event of rural sociology at Chapingo, where work on peasant movements were presented. Regarding the emotional aspect, an atmosphere of camaraderie that was demonstrated, for example, when a student ahead exposure, since the student manager had a problem getting to college was achieved. In addition, students put themselves, to get or bring their laptops, or get cables to connect the gunboat, among other things. Finally, a breakfast at the end of the classes are organized in the home of a student, which is very unusual and difficult because of the level of competition and individualism among students. In the field of economics hypothesis, so that it went from a dynamic individual to another job collaborative work was fulfilled. It could access the internet at all times, which was possible to establish a relationship with the contents of the subject with examples of reality or the national context. In this sense, it was possible thanks to the Internet, for example, to access information that previously took days to get, such as indicators of GDP, inflation, unemployment, poverty, among others. On the emotional aspect on its own initiative it emphasizes that students attended the closing campaign of Andres Manuel Lopez Obrador, the leftist candidate to president and took photographs that subsequently developed a video.

Closing

The evaluation was counted with jobs that are available online: documents, presentations, spreadsheets, Website and videos. Part of the evaluation of the results involved the appointment of a student who acted editor. The editor was responsible for checking spelling and protocol search and cite references from the Web. Finally, the working hypothesis for both materials were corroborated.

To illustrate the Website link two students who developed the seminar of Rural Sociology Social Movements V is added. This is original work produced during the course. Each student developed its own Website. Example One: (https://sites.google.com/site/juliettyolotli/), ie two: (https://sites.google.com/site/luispadresfamilia/).

In the case of students in economy also they developed their own Website, using as a repository for presentations, and, above all, to publicize the work hemerográfico developed during the course. First example: (https://sites.google.com/site/economiaiiequipoagricola/), second (https://sites.google.com/site/nellyeconomianeoliberal/), and third (https://sites.google .com / site / eldesconectadoside /)

In short, students were able to develop some skills that initially did not know. In the course they learned to work in the cloud with Google platform; improved quality of Internet search processes; They learned to work collaboratively developed documents in Docs; They produced a video which can be accessed on Youtube; They learned to work with the drawing tool, presentation and spreadsheet Google. They also created a personal website and another team.

Conclusions

Through the use of Intervention Research Plan, the student is able to have an overall vision to create an academic work needed to be evaluated. The student also became familiar with the concepts of ICT, learning skills and collaborative work. At the same time began to use various Google tools environment: Mail Gmail, to establish a means of communication between students and between students and teacher; the calendar; Website; searches; images; video; and the DRIVE tool, through which it is possible collaborative work through word processors (Docs), spreadsheets, drawings, presentations, calendar, and so on.

One of the highlights was being able to make reflections during class and from the questions that arise there improve the accuracy of the information because everyone makes internet searches. In addition there are two aspects: the first is that books used are always quite behind with respect to information online; the second is that the problem in question already has different solution options, among which are tutorials, videos, Web pages updated always have something to contribute. So, having internet during class time allows real-time access to official information: youtube videos (tutorials, educational, etc.); news, among others, by which the information poured into the classroom achieves greater accuracy, timeliness and opportunity is because, many times, of information on: database management; tutorial videos, the first of official information. With them it is possible to determine the quality of information poured into class more.

Another interesting aspect is that it has a Website of the group, which facilitates the program content, evaluation forms, expand details of what will be in each subject; have the list of online group; organizing activities; PDF files, Word files, and so on. It is a means of communication available at all times, since students can access it during class and outside it. It is also possible to make changes flexibly according to the needs of the subject.

The possibility of developing collaborative work allows a new form of interaction among students. Itself many of them are already skilled in handling social networks, so they have preferences for Web pages of music, videos, naturalists, and so on. That is, already they have a not inconsiderable cultural baggage that becomes a resource for the development of collaborative work.

Unlike a conventional course where the teacher presents, he leaves a questionnaire to review in class, organize students to present here a minimum percentage of the group actually involved. Most of the students sample rejection readings, but fail to make the internet "copy, paste". In cases where it is evaluated with a job, it is known that very few students perform it and the rest almost does not participate, although all are evaluated with the same work.

With the use of ICT the teacher becomes more of a guide than a leader; all students are required to participate; is able to modify the notion of time (the ability to access outside of class time) and space (beyond the classroom information is on the Web and also students can connect from different locations: home, library, school , work, internet cafe, etc.). In addition, each student participates to the best of their ability (reading, synthesis, searches, writing, concept maps, videos, presentations, databases, etc.). However, learning is collective and highlight situations where, usually, each student is more or less proficient in a skill that implements during the manufacturing process.

Finally, it should be noted that students involved, for example with videos and Website in activities which go from being spectators to authors, performing collaborative activities that will be able to be seen by the public from across the web worldwide.

Bibliography

Beck, Ulrich (1986). La sociedad del riesgo. Hacia una nueva modernidad, Editorial Siglo XXI, España.

Castell, Manuel (1996). La era de la información. Tomo I, Economía, Sociedad y Cultura, México, Editorial Siglo XXI.

García Fraile, Juan Antonio et al. (2012). La formación de competencias a través de la metacognición. Una propuesta desde el enfoque socio-formativo, Gafra editores, México.

García González, Enrique (2010). Pedagogía constructivista y competencias: Lo que los maestros necesitan saber, Trillas, México.

Jara Valdivia, Ignacio (2013). Las políticas de tecnología para escuelas en América Latina y el mundo: visiones y lecciones. En http://www.eclac.org/ddpe/publicaciones/xml/8/34938/W214.pdf consultado (14-05- 2013).

Martínez Sánchez, Francisco (coord.) (2008). Educación y Nuevas Tecnologías para la enseñanza. Multicultura. Murcia: Universidad de Murcia, Servicio de Publicaciones.

Sevillano García, María Luisa (2005). Didáctica en el siglo XXI. Ejes en el aprendizaje y enseñanza de calidad. España: McGraw Hill.

Vargas Hernández, José Guadalupe (2003). "Teoría de la acción colectiva, sociedad civil y los nuevos movimientos sociales en las nuevas formas de gobernabilidad en Latinoamérica" en Revista Latina de Comunicación Social, No 54, en http://www.ull.es//publicaciones/latina/200353vargas.htm