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ATTAC project: Cooperative learning in an educational social network site through mobile devices and/or tablets pc.

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The aim of this paper is to present some of the results of a doctoral thesis in progress. This thesis is part of the Industrial PhD Programme promoted by the Government of the Generalitat of Catalonia[1]. The research is being developed by researchers of GRAD[2] that aims to study issues related to attending diversity and inclusion of all students in the common school centers.

The doctoral thesis project maintains a connection with the project *PAC 1* (Programa didàctic-inclusiu per atendre a l'aula alumnat amb necessitats educatives diverses. Una investigació avaluativa, SEJ2006-01495/EDUC), which began in 2006 and continued in its development until 2010, enabled the development of the CL/LC Program ("Cooperating to Learn/Learning to Cooperate"[3]). Currently the CL/LC Program is being developed in approximately 300 educational centers in different communities in the Spanish State.

The research also upholds a connection with the project *PAC 2* (Estudio de casos sobre el desarrollo y el proceso de asesoramiento del programa de apoyos educativos inclusivos del proyecto PAC, EDU-2010.19140), linking with the research line on "ICT and cooperative learning" in the axis of research: "The introduction of cooperative activity structures and strategies of self-regulation through the use of technology for learning and communication and in virtual environments" (GRAD, 2012).

The aim of our research is to adapt educational practices proposed through Project PAC to the conditions of learning environments mediated by ICT and to check whether the introduction of some changes made through an intervention that incorporates and adapts some structures of cooperative activity, as well as some educational tools to teach and assess teamwork (CL/LC Program) in a virtual environment vertebrate for an educational social networking website, and with the support of the ICT, concretely through mobile devices and/or tablets pc, will contribute to the improvement of teaching-learning processes of class-groups who participating in the study.

Is necessary to point out that from the practice, various centers who are users of the Program will make this demand, therefore, the project aims to largely respond to these needs arising from teaching.

To achieve our aim the project will use the virtual social networking site developed by the Company ATTA[4] (www.attacommunity.com), an educational social networking website which through the use of mobile devices and/or tablet pc and gamification, offers to the teachers and educational community resources and tools so that the students can be connected while they are learning and can do it cooperatively; the virtual social network developed by ATTA stands as a support tool to help the incorporation and the adaptation of educational practices proposed through the CL/LC Program to the educational environments mediated by ICT.

[1] Industrial Doctorate: Strategy promoted by the Government of Catalonia, in collaboration with public and private universities, which aims to contribute to the competitiveness and internationalization of Catalan industry, retain talent and position doctoral students in conditions to develop R & D in a company.

[2] Research Group about Attention to the Diversity. Vic University.

[3] The explanation of what is the CL/LC Program and how it is being implemented educational centers is available on the <http://www.cife-ei-caac.com/programa.asp>.

[4] ATTA is a Catalan company formed by engineers in telecommunications who is aimed at the educational community: schools, teachers, students and parents/tutors, with the intention to cover their needs in relation to the processes of teaching/learning and build a new model through the use of ICT with the aim of promote learning among online users, cooperative learning, creativity, research and the use of mobile devices.

Methodology, Methods, Research Instruments or Sources Used

The methodology used to perform this research is qualitative, based on the methodology of case studies (Riba, 2007; Miles and Huberman, 1994; Stake, 1995, 2010). We aim to keep track of the centers involved in the study that enables us to collecting information, analyse, interpret and check to what extent the adaptation of some cooperative learning structures and some of the teaching tools to teach and assess teamwork (CL/LC Program) adapted to the virtual social network ATTA, contribute to improve the learning process for all students.

The data collection instruments foreseen: participant observation, self-reports of teachers and interviews with teachers and students.

The research design involves the following phases:

1. Analyse product ATTA and its potential for learning.
2. Design and implement an intervention proposal consisting of:
 - 2.1. Adapt some cooperative structures of the CL/LC Program in the virtual environment of ATTA and observe its use in the classroom.

2.2. Adapt some dynamics of social cohesion in the virtual environment ATTA and observe its use and who the teachers and students give it to.

2.3. Adapt some tools for self-regulation and self-assessment (CL/LC Program) and see how the teachers and students use attributes to it.

The types of cases that will participate in the project respond to the following criteria:

- Educational centers participating in the project PAC 2 in two different ways:
 - o Work with the CL/LC Program and ICT regularly as a resource in the classroom.
 - o Work with the CL/LC Program but not regularly use ICT as a resource in the classroom.
- Educational centers that do not participate in the CL/LC Program and use ICT regularly as a resource in the classroom.
- Educational centers that do not participate in the CL / LC Program and do not usually use ICT in the classroom.

The centers consist of primary and secondary forms of education. The overall number of cases we will work with will be 10 in total, distributed in Catalonia, the Basque Country and Galicia.

Conclusions, Expected Outcomes or Findings

To accomplish achieving the research objectives that we propose, during the period July 2013-January 2014, while adapting 2 dynamic of social cohesion and 4 structures cooperative activity around the social network ATTA. These adaptations have been tested with groups of teachers and students in four schools of the type that we have proposed for data collection. Early results suggest some changes in the social network:

- It facilitates and streamlines teamwork. Teachers and students don't have difficulties in using it.
- It ensures things like equal participation and simultaneous interaction of students (conditions for cooperative work), producing constant feedback between students and between students and teachers.
- They give educational value to work with mobile devices, while also facilitating the use of social networks.
- It should provide orientations for teachers that allow them to perform cooperative work through the virtual tool.

These first results allow us to anticipate possible new results regarding the different types of schools participating in the project:

- Educational centers that do not use the CL/LC Program and neither the ICT environment: expected more difficulty to set up the learning teams and the internal management of the equal participation.
- Educational centers that do not use the CL/LC Program but are ICT users: expected more difficulties to incorporate the proposal of cooperative learning, especially self-regulation and self-assessment tools for students.
- Educational centers that regularly work with the CL/LC Program, users or non-users of ICT: expected a greater adaptation to the adapted proposals in virtual environment social networking website of ATTA and an increased demand for tools and self-assessment work cooperative (self-evaluation, co-evaluation).

References

- Anderson, R.; Anderson, R.; Davis, K. M.; Linnell, N.; Prince, C.; & Razmov, V. (2007). Supporting active learning and example based instruction with classroom technology. *ACM SIGCSE Bulletin*, 39, 1
- Coll, C. (2011). L'impacte de les tecnologies digitals de la informació i la comunicació sobre el currículum escolar: una transformació en curs. *Àmbits de Psicopedagogia*, 31, 26-31.
- Casas, J.; Ochoa, S.F.; & Puente, J. (2009). Using Tablet PCs and Pen-Based Technologies to Support Engineering Education. *Human-Computer Interaction*, 5613, 31-38.
- Grup de Recerca sobre Atenció a la Diversitat [GRAD] (2012). Estudio de casos sobre el desarrollo y el proceso de asesoramiento de un programa de apoyos inclusivos (proyecto PAC): estado actual. IX Congreso Internacional de Prácticas en Educación Inclusiva. *Dialogos entre escuela, ciudadanía y universidad*. Puerto Real: Cádiz.
- Karsenti, T. & Fievez, A. (2013). Les tablettes tactiles à l'école primaire: avantages, défis et recommandations pour les enseignants. *Vivre le primaire*, 26 (4), 33-36.
- Lago, J. R.; Naranjo, M.; Riera, G.; & Segues, T. (2012). Cooperative learning in virtual environments using ICT to support inclusion in the classroom. *European Conference on Educational Research*. Cádiz: Universidad de Cádiz.
- Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: an expanded sourcebook*. [2nd Edition]. Thousand Oaks: Sage, Publication Inc.
- Pujolàs, P. (2008). 9 ideas clave. El aprendizaje cooperativo. Barcelona: Graó.
- Pujolàs, P. (2012). Aulas inclusivas y aprendizaje cooperativo. *Educatio Siglo XXI*, 30 (1), 89-112.
- Riba, C. (2007). *La metodología cualitativa en l'estudi del comportament*. Barcelona: EdiUOC.
- Scardamalia, M. & Bereiter, C. (2003). Knowledge building environments: Extending the limits of the possible in education and knowledge work. In A. DiStefano, K.E. Rudestam, & R. Silverman (Eds.). *Encyclopedia of distributed learning*. Thousand Oaks, CA: Sage Publications
- Stake, R. E. (1995). *Investigación con estudio de casos*. [2ª edición]. Madrid: Ediciones Morata.

Stake, R.E. (2010). *Qualitative Research: Studying How Things Work*. New York: The Guilford Press.

Vilà, J. & Segués, M.T. (2012). Introduction of a cooperative activity structure with ITC's support to improve the inclusion in the classroom. 2nd Annual International Workshop on higher education. Vic: University of Vic.