Case Study on Collaborative Work Experiences with Web 2.0 in Spanish Primary Schools with the Highest Institutional Accreditation Level

Ana Iglesias Rodríguez, University of Salamanca, Salamanca, Spain

María Cruz Sánchez Gómez, University of Salamanca, Salamanca, Spain

Concepción Pedrero Muñoz, University of Salamanca, Salamanca, Spain

ABSTRACT

ICT constitutes a suitable tool for the generation of joint communicative spaces where manifold variables may converge and a wide range of methodologies and strategies can be activated, thus fostering richer levels of interaction and swift communication between its users. This case describes and analyses the collaborative work experiences with ICT that are being implemented in the third cycle of Primary Education in schools located in north-western Spain (Region of Castile and León). The results evince that teachers hold a positive view once they have used such technology-based approaches, although they demand a better provision of infrastructures and more institutional support, including specific aids for life-long learning schemes. Conclusions of this study have been drawn both to help and to offer some guidance to teachers engaged in innovative, collaborative, and technologically-assisted curricular processes within 2.0 school settings.

Keywords: *Asynchronous Interaction, Collaborative Learning, Computer-Supported Cooperative Work, Evaluation, Methodology, Theory and Models*

INTRODUCTION AND CURRENT SITUATION

Information and communication technologies (ICT) are acquiring a status of increasing relevance in the Spanish education system in terms of teacher and student training, to the point where they are currently one of the content blocks around which the curriculum is determined.

The Spanish government has recently approved Organic Law 8/2013, of 9 December, for the Improvement of Educational Quality (LOMCE), which emphasizes information and communication technologies as a crucial area for the transformation of the educational system,

arguing that technologies have always been and still are part of the education system. This Law states that it is essential to make intensive use of technologies to achieve personalized and universal learning, facilitating training in the development of non-cognitive skills, attitude building and learning based on practice.

Accordingly, current learning theories state the importance of social relations and interaction in knowledge acquisition. In professional environments, including the field of education, team-work has become a key factor for the achievement of common goals. This has been enhanced by the use of digital technologies, which, as regards education, has led to worldwide improvement in student-teacher communication.

Already 18 years ago, Harasim, Hiltz, Teles and Turoff gave this the name of *learning networks*. This system encouraged student communities to work collaboratively in virtual environments, regardless of their physical location at the time, so long as they remained interconnected. The main purpose at the time was to pursue and build knowledge in an asynchronous world.

Collaboration among different educators fosters the collaborative method, where team members learn from each other together through a reflective, critical and autonomous learning method aimed at improving the shared acquisition of knowledge. The role of ICT in this regard becomes perfect to establish real-time shared communication spaces where a great variety of people can interact in contexts and situations involving multiple variables (Oliveira-Bueno & De Oliveira, 2008; Sancho & Correa, 2010). It also facilitates the implementation of different strategies and methods to ensure rapid and efficient interaction among users.

The introduction and implementation of ICT in the education system is ever increasing, evidence of which is the growing number proposals for programmes aimed at the inclusion if ICT in schools as part of the daily educational activities with children, both from the institutional and the curricular point of view (Bustos, 2012; De Pablos Pons, Colás & González, 2010).

"The *Escuela 2.0* Programme" was created in Spain with the aim of integrating ICT in educational centres. Its main purpose was to provide centres with technology and connectivity infrastructure for the implementation of digital classrooms fit for the 21st century. "The *Escuela 2.0* programme" is based on several lines of action:

- Provision of ICT resources to centres and students (digital classrooms and laptops);
- Guaranteeing Internet connectivity and interconnectivity among all the computers within the classroom;
- Promotion of teacher training in technological, methodological and social aspects for the integration of these resources in their everyday teaching practices;
- Production and facilitation of access, both for teachers and students, to educational material adapted to the curricula;
- Involving students and their families in the acquisition, care and use of these resources.

Actions were first focused on the third cycle of Primary Education (years 5 and 6), starting in 2009-2010 with year 5 of Primary Education in all the publicly funded centres and, subsequently, including year 6 of Primary Education and the first two years of Compulsory Secondary Education (ESO). In addition, all the teachers involved in the Programme and all the technicians responsible for its implementation and development received adequate training where necessary. The training provided was mainly addressed to the methodological and management aspects of technologically equipped classrooms and to the working of the equipment. It was focused on methodological issues for the management of technologically equipped classrooms and provided through courses offered by the Ministry of Education, Culture and Sport (Spain), with the direct collaboration and support of the National Institute of Educational Technologies and Teacher Training (INTEF) for their implementation, since the latter is the unit in charge of the integration of ICT in non-university stages of education.

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/case-study-on-collaborative-work-experiences-with-web-20-in-spanish-primary-schools-with-the-highest-institutional-accreditation-level/115957

Related Content

Secure Computation for Privacy Preserving Data Mining
Yehuda Lindell (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1747-1752).*
www.irma-international.org/chapter/secure-computation-privacy-preserving-data/11054

Constraint-Based Pattern Discovery
Francesco Bonchi (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 313-319).*
www.irma-international.org/chapter/constraint-based-pattern-discovery/10838

XML-Enabled Association Analysis
Ling Feng (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 2117-2122).*
www.irma-international.org/chapter/xml-enabled-association-analysis/11112

Vertical Data Mining on Very Large Data Sets
William Perrizo, Qiang Ding, Qin Dingand Taufik Abidin (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 2036-2041).*
www.irma-international.org/chapter/vertical-data-mining-very-large/11099

A User-Aware Multi-Agent System for Team Building
Pasquale De Meo, Diego Plutino, Giovanni Quattroneand Domenico Ursino (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 2004-2010).*
www.irma-international.org/chapter/user-aware-multi-agent-system/11094