

# Chapter 10

## Blended Collaborative Learning through a Wiki-Based Project: A Case Study on Students' Perceptions

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### ABSTRACT

*Wikis are currently gaining in popularity in schools and higher education institutions and they are widely promoted as collaborative tools supporting students' active learning. This paper reports on the investigation of university students' beliefs and perceptions of a wiki authoring activity, designed to support blended and collaborative learning. The study was administered in the context of an authentic coursework project activity in a first semester university course on Information and Communication Technologies (ICT), attended by 47 first year students. Research findings indicated that the students in the sample were generally positive about the collaborative experience offered through the wiki and the consequent learning outcomes. Students' perceptions of the functionality and usability of the wiki environment were also positive. They considered the wiki as an effective and easy to use technology. In overall, they evaluated positively the wiki assignment, as well as the technical and learning support they received on-line, through the wiki pages, and by their instructors during the class sessions.*

### 1. INTRODUCTION

During the last decade, Web 2.0 applications, including but not limited to, blogs, wikis, social networking, media sharing, social bookmarking, RSS, podcasting, etc., have received intense and

growing educational interest. At the core of the Web 2.0 tools are a) user control, b) architecture of openness and participation, c) the remixability and transformation of data, d) communication and sociability, and e) the harnessing of collective intelligence (O'Reilly, 2007). The emerging tools of Web 2.0 have the potential to promote important innovations in the way people conceptualize the

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relationships between learning and thinking and, especially, how those relationships are conceptualized and developed in educational settings.

The use of Web 2.0 for learning purposes is expected to exert a significant impact on education and to change the boundaries between school and home; formal, non formal and informal learning; teachers and learners; education and entertainment. Undoubtedly, social media have the potential to transform the learning context by providing multiple opportunities for shared content and resources, self-directed learning, collaborative learning, ubiquitous and lifelong learning (Glassman & Kang, 2011; Jimoyiannis, 2010). Among Web 2.0 applications, blogs and wikis have received particular educational interest, with uses expanding to include diverse learning groups, ranging from primary (Tse et al., 2010; Woo et al., 2011) and secondary education (Angelaina & Jimoyiannis, in press; Forte & Bruckman, 2007) to higher education (Tan et al., 2010; Wheeler et al., 2008; Zorko, 2009; Yang et al., 2009) and teachers' professional development as well (Luehmann & Tinelli, 2008; Wheeler & Wheeler, 2009).

Because of their organizational features (hypertext format, easy to use environment, open access with no time and place restrictions) and the pedagogical affordances, wikis can offer enhanced opportunities to the students, not only to improve their authoring and communications skills, but to construct new knowledge through expressing and exchanging ideas, sharing of resources, critical and reflective thinking, collaborative and group work. Previous research findings show that wikis support collaboration, facilitate peer review, encourage reflective writing and support students' movement from surface learning to deeper understanding and knowledge construction (Bradley et al., 2010; Forte & Bruckman, 2006; Wheeler et al., 2008; Hemmi et al., 2009). In a recent study on the use of a wiki in a class of primary-five students, where English is taught as a second language, Woo et al. (2011) found that the students enjoyed using

the wiki, and the overall perception was that it helped foster teamwork and improved writing. In addition, Trentin (2009) presented a methodological approach for using wikis in the assessment of collaborative learning activities. Despite that there is growing interest in the use of wikis to promote collaboration in higher education, there is little consensus on how best to integrate wikis with other student activities and existing technologies (Naismith et al., 2010).

An evaluation of a wiki, compared with a forum for online tutorials, has shown that students and tutors felt that the wiki is more difficult to use than a forum, and highlighted the importance of good usability in collaborative software (Kear et al., 2010). In her study on sociology students who used a wiki in a blended learning environment, Zorko (2009) found that most peer communication and content creation took place face-to-face while students preferred to use familiar tools such as email and MSN Messenger for their communication. Similar findings were noted by Thomas et al. (2009), who found that business students preferred email and MS Word to compose content by copying into the wiki. Existing research indicates that students believe that wikis enhance collaboration, even though their using patterns may not provide evidence that collaborative knowledge construction took place through the wiki (Hughes & Narayan, 2009) and there is no measurable performance improvement (Neumann & Hood, 2009). Likewise, Lin and Kelsey (2009) found that collaborative writing and learning were the exception rather than the norm among participants in the early stages of wiki work.

This investigation has the ambition to contribute to a deeper improved understanding of how university students perceive the educational affordances of wikis, and how they use wikis as collaborative learning tools. The paper begins with a literature review concerning current research on educational wikis. The design of the wiki-based project is presented, and the implementation in a university course at the Department of Social and

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