Chapter 37
Social Media in Higher Education: Using Wiki for Online Gifted Education Courses

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ABSTRACT
This study uses the theoretical framework of social constructivism and Communities of Practice (CoP) in two qualitative case studies that explore the use of wikis in online courses in teacher education to promote collaborative writing, problem-solving, and knowledge construction. The case studies involve data collection in the form of interviews, student products on wiki pages from the two courses, and course feedback. Several themes emerge that can be categorized under the broad headings of community building and collaboration, creative process, professional growth, and technology and the research process. Recommendations are made for educators that may be useful in augmenting their students’ e-learning experiences with wikis.

INTRODUCTION
Online technology methodologies are transforming the nature of both teaching and learning. Instructors are moving from deliverers of information to facilitators; likewise, students are becoming participants in a learning environment where the focus is on knowledge construction rather than knowledge reproduction. In addition, standards for learning are higher than they have ever been in the past for teacher educators. Many educational reformers advise putting teachers in a professional role as problem solvers and collaborators as well as both producers and consumers of research (Liston, Whitcomb, & Borko, 2007). Not only do teachers need the knowledge and skills of their craft, they need to be able to improve their teaching through reflection and evaluation (Darling-Hammond & Bransford, 2005).

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Collaboration is a skill that is increasingly valued in the work world; hence, it is important that students in higher education have experience working on projects in collaborative teams. A wiki has the potential to be a powerful tool for collaboration and community building in online courses. This chapter discusses how wikis are used in online courses in gifted education at a state university in Southeastern United States to promote collaborative writing, problem solving, and knowledge construction. With a student body of approximately 10,000, the university has hosted over 700 wikis, the majority of them being in the College of Education and Allied Professions (Bruder et al., 2011). The goal of our research is to further understand the types of activities that promote in-depth collaboration and problemsolving among learners using wiki as a tool and how the learners perceive their collaboration and knowledge-building. Suggestions are offered on how educators can provide the most rewarding collaborative experiences for students.

BACKGROUND

Since the advent of Web 2.0 prominence in 2006, there has been much discussion about the educational potential of wikis, blogs, and social networking, among other Web tools (Alexander, 2006; Armstrong & Franklin, 2008; Kamel-Boulos & Wheeler, 2007; Wheeler & Wheeler, 2009). Wikipedia defines a wiki as “a Website whose users can add, modify, or delete its content via a Web browser using a simplified markup language or a rich-text editor.” The name is based on the Hawaiian term wiki wiki, meaning ‘quick’ or ‘informal’.

Several studies on the use of wikis in higher education have emerged in recent years demonstrating that wikis do facilitate peer collaboration despite various challenges (Bold, 2006; Boulos, Maramba, & Wheeler, 2006; Butcher & Taylor, 2008; Chang, Y., Huang & Nakazawa, 2010; Cole, 2009; Crook et al., 2008; Godwin-Jones, 2003; Lazda-Cazers; 2011; Matthew, Felvegi, & Callaway, 2009; Minocha & Thomas, 2007; O’Shea et al., 2007; Robertson, 2008; Su & Beaumont, 2010; Wheeler & Wheeler, 2009; Wheeler, Yeomans, & Wheeler, 2008). Wikis have been used for a variety of purposes including collaborative writing (Baetens, Truyen, & Roegiers, 2006; Kessler, 2009; Newman & Hood, 2009), glossaries (Bruder et al., 2011), literature reviews (Su & Beaumont, 2010), student-created content (Lazda-Cazers, 2011; Ravid & Rafaeli, 2008; Romeo, Brennan, Roth, & Mitchel, 2010; Wheeler & Wheeler, 2009; Wheeler, Yeomans, & Wheeler, 2008), projects (Minocha & Thomas, 2007), professional development (Kim et al., 2012), and reading synthesis (Huang & Nakazawa, 2010). Educators have also been implementing wikis into classroom instruction for non-collaborative purposes such as maintaining a page of key terms throughout a course or to display projects for other classmates to view and critique. In the latter cases, collaboration between classmates may not be expected or occur. Hadjerrouit (2012) referenced several prior studies where collaboration between students was limited due to factors such as group members preferring individual tasks (Elgort, Smith, & Toland, 2008), lack of individual group members contributions to the wiki (Cole, 2009), a lack of editing and revising of an existing page (Elgort et al., 2008), issues with ownership over materials published on the wiki (Wheeler, Yeomans, & Wheeler, 2008), and students being more concerned with adding content in lieu of editing and revising (Arnold, Docate, & Kost, 2009). There is a scarcity of research using wikis for on online collaborative learning that emphasizes the solving of complex problems and the completion of authentic tasks (Herrington, Reeves, & Oliver, 2009). Our goal is to add to the research base on using wiki as a collaborative problem-solving tool in the writing process and in the construction of knowledge.