Blogging as a social medium in undergraduate courses: Sense of community best predictor of perceived learning

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ABSTRACT

The purpose of the study was to examine pre-service teachers' sense of community, perception of collaborative learning, and perceived learning. Fifty pre-service teachers from two undergraduate ICT courses which incorporated blogs participated in this study. The data were obtained via three online questionnaires (Collaborative Learning scale, Sense of Community scale, and Perceived Learning scale) administered throughout Fall 2009–2010. The research questions were answered by using Pearson Product-Moment Correlation and multiple linear regressions. Results indicated that the pre-service teachers had positive feelings about the collaborative learning and perceived learning; also, they had moderate feelings related to sense of community in the classes which incorporated blogs. Additionally, to a great extent sense of community and to a much lesser extent of computer knowledge level were the predictors of explaining their learning perceptions.

1. Introduction

Over the past few years there has been an increasing interest in the new generation of social media, especially Web 2.0 technologies. The users play a more active role in Web 2.0 technologies than in the previous social web based environments. These technologies including blogs and wikis help people to create, communicate, and publish online content more easily. Due to the ease of use, functionality and flexibility, they have become much more commonplace throughout the online environments. These attributes of Web 2.0 technologies are also well suited to be used as social teaching and learning media in higher education (Ajjan & Hartshorne, 2008; Churchill, 2009; Ellison & Wu, 2008; Top, Yukselturk & Inan, 2010).

1.1. Blogging in the classroom

The new social media have disrupted traditional communication and learning methods in the classroom in the last years (Ellison & Wu, 2008). Today's college students spend lots of time on the internet and engage instant messaging, blogging, using Facebook or Twitter, downloading audio and video files, and online games in their daily lives. In other words, today's college students have grown up with these tools (Roberts, Foehr & Rideout, 2005). The dichotomy used for these kinds of students in the literature is "digital natives" (Ajjan & Hartshorne, 2008; Pascu, 2008). Therefore, educators have tried to

incorporate these online technologies into the classroom environments to increase student satisfaction and learning. Blogging, one of the emerging technologies, is often employed by educators in the classroom to overcome the weaknesses of current CMC technologies, such as, causing difficulty in the management of communication, failing to provide a sense of ownership, causing anxiety, being instructor-centered, or having no archive capability (Kim, 2008).

Blog is short for web log that is one of the most appealing Web 2.0 tools. It basically allows users to create personal journals and resource sites to share with their community (Makri & Kynigos, 2007). Since its breakthrough among other online social media, the number of blogs has been increasing rapidly every day (Pascu, 2008). With its increasing popularity, blogs have come out in a variety of fields including business, travel, sports, and also education. Educational applications of blogs include writing, researching, interpreting, interacting, reflecting, problem solving, cooperating, sharing ideas, and expressing individual or group voice (Brescia & Miller, 2006; Goktas, 2009). Similarly, several researchers agreed on a number of interesting possibilities for the usage of instructional blogs in educational environments (Brescia & Miller, 2006; Ellison & Wu, 2008; Makri & Kynigos, 2007). For example, educators and students can use blogs in order to publish news and information about the course; collect learning resources and share ideas and experiences; develop interaction like in an online forum; improve researching and writing skills while preparing individual assignments; and develop collaboration and social skills in discussions over group assignments and projects (Churchill, 2009; Ellison & Wu, 2008; Fessakis, Tatsis & Dimitracopoulou, 2008). However, students' blog usage will not improve their learning without applying suitable content, scaffolding,

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and strategies in the learning environment (Ellison & Wu, 2008; Top, Yukselturk & Inan, 2010).

Several researchers showed that blogs can be used as effective social teaching and learning media in the classroom. For example, Williams and Jacobs (2004) investigated the potential of blogs in the higher education and came up with the idea that blogs have the potential to provide students with a high level of independence while simultaneously providing opportunity for a deeper interaction with peers. Another study was conducted by Ellison and Wu (2008) who analyzed student perceptions of blogging in the classroom and they found that students enjoyed certain aspects of blogging. Also, reading other students' blogs was believed to be most helpful in understanding course concepts. Furthermore, Goktas (2009) analyzed pre-service teachers' perceptions and experiences in blog-supported ICT courses incorporating the seven principles of good practices. According to the results, pre-service teachers believed blogs can be used as an effective instructional tool in learning environments. To sum up, Efimova and Fiedler (2003) defined learning characteristics of blogging environments as synergies of self-organized and community learning (Beldarrain, 2006; Hall, 2008; Yang, 2009), distributed apprenticeship (Du & Wagner, 2006; Oravec, 2003; Williams & Jacobs, 2004), support for the development of meta-learning skills (Farmer, Yue & Brooks, 2008; Rockinson-Szapkiw & Walker, 2009; Yang, 2009), and learning from multiple perspectives (Xie, Ke, & Sharma, 2008; Xie & Sharma, 2004).

1.2. Collaborative learning through blogging

Collaborative learning strategies, when designed and applied appropriately, can provide learners with opportunities to experience numerous perspectives of other learners, and can enhance their critical thinking skills through the processes of evaluating, assessing, supporting, or opposing different viewpoints (So & Brush, 2008). Blogs are social software media and also they can support both active and social learning by providing environments and technologies that promote collaborative activities (Ajjan & Hartshorne, 2008; Yang, 2009).

Researchers agreed that blogging supports collaborative learning by enhancing learning performance in both individual knowledge development and group knowledge sharing. For instance, Yang (2009) investigated the use of blogs as a reflective platform in the training processes and found that participants actively discussed their opinions about the topics through blogs. Participants also stated that blogs provide a useful platform for reflecting and communicating with each other. In another study, Makri and Kynigos (2007) analyzed the integration of group blogging in a postgraduate course. Blogging was integrated as a medium of asynchronous communication and reflection. According to the researchers, a long lasting warm or informal dialog and non-monolog narration emerged collaboratively from the preliminary data analysis. Further, the discussion patterns represented structured cohesive and interactive presence, and they revealed a significant evidence for the learning value of blogging.

1.3. Sense of community through blogging

Blogs could be implemented to facilitate discussion and interaction among students (Ajjan & Hartshorne, 2008; Ellison & Wu, 2008). Blogs could also increase the level of students' participation and create a greater sense of community, which is essential for students in online settings (Bold, 2006), different from the conventional classroom settings (Williams & Jacobs, 2004). Sense of community can be defined as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p.9). Through blogging, a sense of community could be developed by enabling students to share and

exchange their opinions and collaborate on learning activities (Petersen, Chabert & Divitini, 2006; Zhu & Baylen, 2005). However, not every blogging environment has resulted in a stronger sense of community among students (e.g. Dickey, 2004; Nardi, Schiano, Gumbrecht & Swartz, 2004). Indeed, while trying to build up a sense of community on the one hand, various factors might actually be weakening the process, on the other hand. Such factors may include authoritative tones of some students, demonstration of mistrust, competition among students, threat of privacy, or exclusion of some students (Rovai, 2001, 2002; Xie & Sharma, 2004).

With respect to producing a sense of community, Yang (2009) and Halic, Lee, Paulus, and Spence (2010) stated that, blog-used educational environments could produce a stronger sense of community among participants as users are more involved than they do in other web based environments. In a blog-used educational environment, students could visit one another's blogs to provide feedback and encouragement, reducing feelings of isolation often felt in online courses, to force one another to critically think, and to establish a sense of community (Rockinson-Szapkiw & Walker, 2009). To establish a sense of a community, blogs should be used to foster interpersonal communication and to be able to possibly reduce isolation and alienation of the students, rather than leading users just to complete the task for grade (Cameron, Morgan, Williams & Kostelecky, 2009; Dickey, 2004).

As a summary, blogs can be used to enhance collaborative activities, sense of community and student learning in the classroom. However, previous research provides limited guidelines and strategies on how blogging can be integrated into instruction to support students and educators (Brescia & Miller, 2006; Ellison & Wu, 2008). Furthermore, there is limited research with regards to the effectiveness of social media to enhance communication among students and to contribute to the learning activities and outcomes in the classroom environment (Ellison & Wu, 2008; Halic, Lee, Paulus & Spence, 2010; Kim, 2008; Top, Yukselturk & Inan, 2010). The purpose of this study was to examine pre-service teachers' sense of community, perception of collaborative learning, and perceived learning in a class which incorporated blogs. The following main research questions guided this study:

- What are the pre-service teachers' sense of community, perception of collaborative learning, and perceived learning?
- Is there any relationship between pre-service teachers' gender, previous experience with blogs, computer knowledge, sense of community, perception of collaborative learning, and perceived learning?
- What is the extent to which selected variables (gender, previous experience with blogs, computer knowledge, sense of community, and perception of collaborative learning) account for pre-service teachers' perceived learning?

2. Method

This study was designed based on basic correlational research design principles. The correlational research design is used to help explain important behaviors; analyze relationships between variables; and predict probable outcomes or predict the score on one variable if a score on the other variable is known (Fraenkel & Wallen, 2006). Similarly, this research examined the relationship between various pre-service teachers' perceptions and their perceived learning in two undergraduate ICT courses which incorporated blogging.

2.1. Description of ICT courses

Course-I (Web Design) and Course-II (Internet Based Programming) are two similar undergraduate courses taught to 3rd year pre-service teachers and 4th year pre-service teachers respectively in