

Chapter 23

Using Web 2.0 Tools to Engage Content, Promote Self-Efficacy, and Implications for Intentional Student Learning

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ABSTRACT

This chapter defines Web 2.0 tools, their use in student learning, results from a study with university undergraduate students, and their implications for intentional student learning. Treatment subjects used a discussion board style site called TitanPad® to respond to a journal prompt after reading an article and before attending a subsequent class to discuss the journal article. Results are discussed for likelihood to read the assignment, amount of time spent reading, perception about being ready to discuss the material, perceived contribution to in-class work, and comprehension of the material. One inference was that with no additional time investment, instructors might increase student in-class participation using a Web 2.0 tool and students' self-efficacy with material in their profession. This has important implications for the manner in which students interact with text and content as significant intersubjective actors in the learning process.

INTRODUCTION

In many cases instructors are tempted to approach the content material and texts used in courses as objects of inquiry and implementation and not as subjects of intention in the dialogue of curriculum and student content knowledge development. It is common to see content material and texts as objects or as a set of restraining requirements for the development of course curricula, discrete lesson plans, and assessment instruments. The consequence of not considering the content material and texts as subjects

DOI: 10.4018/978-1-5225-7918-2.ch023

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of intention, defined by the instructor's and student's purpose in relation to them, is serious. Approaching content material and texts from an orientation that appreciates their role as a contextual actor and contributor has significant potential for increasing student learning. If instructors maintain a division between the products or objects of the content material and texts and our purpose in creating curricula and educative experiences within a classroom context, then the culture of study and engagement will develop immanently, in ways which will not facilitate educative student directed interaction with the content (Hirschkop, 1989).

To model best practices, the researchers teamed to incorporate several online exercises into an undergraduate science methods course for elementary teachers. Preservice elementary school teachers are university students that are completing a program leading to an initial teaching license. The efforts were prompted by a deep dive into listening to students' voices about desired learning experiences in their courses. Students were surveyed and expressed a desire for more online learning as part of their teacher preparation. Table 1 displays three statements from the larger survey that revealed this desire.

Part of the concern when moving to an increased emphasis on online learning involves questions regarding how students will engage with and interact with the content materials and texts. There is a perception of the potential loss of the instructor's guidance and expertise in relation to the course content when moving to an asynchronous format. To bridge students' natural interest, and desire for, online (technology-based) learning the researchers incorporated several Web 2.0 technologies appropriate for preservice teachers. Web 2.0 environments and tools are ones in which users create information and interact with other users on the Web. This distinction is vastly different from the Web's original 1.0 environments where users only read information on the Web. Web 2.0 tools are insightful tools to use with students because they provide an opportunity for additional voices and contributors to enter the learning dialogue through online content in the form of text, video, or other digital formats and platforms. Recognizing these sources of content as active participants in the learning dialogue is critical to facilitating meaningful student-material-instructor interactions using Web 2.0 approaches. The objectives of this chapter include:

- **Objective One:** Define Web 2.0 tools and why they are helpful to students;
- **Objective Two:** Share the results of one study using a Web 2.0 tool with undergraduate preservice teachers; and
- **Objective Three:** Advocate for the recognition of texts and alternative sources of content within courses as active participants in the learning dialogue.

Table 1. Mean score for each question about online learning from senior year elementary preservice teachers (N=48)

Survey Question	Mean Score* N = 48
1. Overall, I would prefer more online learning as part of my traditional methods courses.	3.7
2. Overall, I would prefer more online learning in place of my university courses.	3.8
3. Overall, I would prefer more online learning in place of my traditional methods courses.	3.0

*1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree

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