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Selecting the Right Technology Tool: Wikis, Discussion Boards, Journals, and Blogs

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Selecting the Right Technology Tool: Wikis, Discussion Boards, Journals, and Blogs

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"It is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail." -- Abraham Maslow

Maslow understood the value of knowing when to use the right tool. It is easy in teaching to over-rely on a familiar tool or a teaching technique that we are comfortable with using. In recent years the teacher's tool box has grown and there are many new technology tools available in course management and learning systems (e.g., Blackboard, Moodle, etc.) and with free websites (e.g., Blogger, Wetpaint, etc.). While many faculty get in a teaching rut and use only lecture, or only small groups, or only discussion boards, it can also be daunting to decide which, of the many new tools is most appropriate to a given task. In this essay, I will compare common electronic tools and use Bloom's Cognitive Domain Taxonomy (1956) and Chickering and Ehrmann's Seven Principles of Good Teaching (1996) to connect these tools with skill development teaching goals and effective teaching practices. One tool is not intrinsically better than another tool, but may be more appropriate for a particular learning task. This essay will make some broad generalizations regarding these teaching tools, so it should be noted that the most appropriate tool to select will also require specific attention to the following issues: course content, student level, size of class, faculty teaching styles, university culture, availability of electronic resources, and of course class goals and learning objectives.

Chickering and Ehrmann (1996) summarized seven principles of good teaching when they described the following features of classrooms and courses where deep learning occurred : 1.) student-faculty interaction, 2.)

cooperation between students, 3.) active learning, 4.) Prompt Feedback, 5.) Time on Task, 6.) communication of high expectations, and 7.) support for diverse talents. While it is doubtful that any single assignment, any one activity, or any one tool could achieve all seven of these principles, this essay will suggest which of these practices each tool will most likely help to support if the tool is used correctly.

The challenge of using a tool correctly is often with the user and not with the tool itself. An instructor should avoid saying that "Blogs are simply a waste of time, " when in truth the fault may not be with the tool but rather with the assignment or the selection of the tool. When choosing a tool, the instructor will need to have clear goals and set up assignments, which support that goal at the appropriate learning level. Bloom's revised Taxonomy (Anderson and Krathwohl, 2001) lists cognitive skills to include:remember, understand, apply, analyze, evaluate, and create. By giving educators a set of learning goals to choose from, Bloom et al make the task of matching learning goals with electronic tools a more orderly and comprehensible process.

Wikis

Wikis provide a vehicle for exercising most, if not all, of Bloom's 'higher order thinking' activities. Blackboard 9.1 defines a wiki as "a collaborative tool that allows students to contribute and modify one or more pages of course related materials." A wiki is ideal for group project that emphasizes collaboration and editing. An instructor might have small groups work on a mini research project, using a wiki. Such work might entail one or more of Bloom's 'higher order skills', depending on the objectives of the class and the project.

If the wiki tool is used appropriately, it would support the following Chickering and Ehrmann practices: cooperation between students, active learning, prompt feedback from peers, time on task, the articulation of high expectations, and support for diverse talents. And if the faculty member is involved in the wiki as well, it could complete all seven principles of good pedagogical practice. With or without instructor involve

Discussion Boards

Because discussion boards were one of the first tools available on course management systems, they are often overused and the prompts are not always developed at an appropriately high level. Asking a student a simple question or to summarize a chapter, for instance, may not be the best use of a

discussion board. Rather, discussion boards are a good place to practice Bloom's penultimate skill of evaluation

However, using discussion boards for evaluating disciplinary literature, in general, or a specific research journal article, could support more focused "higher order" Bloomian thinking. Employing prompts that used descriptive vocabulary, as suggested by Bloom et al., such as, "argue", "assess", "compare"," criticize, "critique", "debate", "evaluate" students' electronic discussion would provide opportunities for practicing such skills. Each student within the group would have a specific role on the discussion board (e.g., summary, critique, questioner, conclusion, etc.). Accordingly, such an assignment would exercise the Chickering and Ehrmann (1996) practices of cooperation between students, active learning, and time on task, at the same time that the learning contained in the assignment's use of roles provides space for the development of important metacognitive skills.

Journals

Journals, a new feature on Blackboard 9.1, allow students the chance to communicate privately with the instructor in contrast to either the wiki or discussion board. Ideally, individual journals could be used over the semester as a record of learning or as a portfolio of various learning activities and assignments, which instructors could comment upon throughout the term. Journals allow students to integrate outside learning with readings in the course, as well. Student-faculty interaction, active learning, time on task, high expectations, and diverse talents (Chickering) are all enhanced by the use of journals. Depending, again on learning goals chosen for the journal assignments and the language of prompts used to support such goals, Bloomian skill development would also be enhanced.

Blogs

Do blogs support deep analysis? Possibly, yes, possibly, no, but certainly they can be used to allow students an opportunity to demonstrate their conceptual grasp of course material. "A Blog—a shorthand term that means Web log—is a personal online journal that is frequently updated and intended for general public consumption" (Blackboard, 2010). Although blogs allow students to comment via individual entries, discussion boards allow for better threads, easier sorting for more extensive communication, and are arguably better for extensive interaction between students. Accordingly, blog assignments work best when the focus is on an entry where individual insight and creativity is encouraged. Blogs, in contrast to journals, are meant, in other words, to make public the writing of a single

individual. A blog assignment might require each student to contribute a current news story that is related to the class content, as well as, any assignment focusing on the individual achievement of each student. Used appropriately, blogging engages students actively, helps them manage their time and can provide opportunities for diverse approaches to the question or problem (Chickering and Gamson, 96).

Quizzes

Using wikis, discussion boards, journals, or blogs simply to assess memorization or rote learning is not using these tools to their fullest. Online quizzes, on the other hand, can be developed by the faculty member to assess low levels of cognitive skill development that may be required for higher-level problem solving. If the quiz is based on multiple choice, true/false, etc., then the grades will be automatic and immediate which can, in turn, provide students with prompt feedback (Chickering).

In summary, there are many valuable electronic tools available that are exquisitely suited to achieving the ends that educational theorists have placed before us. They can enrich, deepen, and motivate the learning of students by diversifying learning strategies while, at the same time, rendering the task of the instructor more efficient. Why not replace the old tools that are so often less motivating for students and more burdensome, for faculty?

Summary of Tools and Relation to the Seven Principles of Good Teaching and Cognitive Taxonomy

	Wiki	Discussion Boards	Journals	Blogs	Online Graded Quizzes
Chickering & Ehrmann 7 Principles					
1.) Student-faculty interaction	X	X	XXX	XX	
2.) Cooperation between students	XXX	XXX		X	
3.) Active Learning	XXX	XX	XX	XX	X

4.) Prompt Feedback	X	X	X	X	XXX
5.) Time On Task	XX	XXX	XXX	XX	
6.) High Expectations	XXX	XX	X	X	
7.) Diverse Talents	XX	X	XX	XX	
Cognitive Taxonomy					
	Create	Evaluate	Analyze/ Apply	Understand	Remember

If the tools are used appropriately they could have X=a little, XX=some, or XXX=a great deal of relation to the seven principles of good teaching.

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