Reflection on Incorporating Active Learning Strategies in Your Online Environment

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1 Workshop Description

I attended my first online workshop, "Incorporating Active Learning Strategies in Your Online Environment" by Debra Dunlap Runshe, an Instructional Development Specialist at Indiana University. The workshop lecture was followed by discussions facilitated by Dr. Barbi Honeycutt.

The workshop requirements entailed watching a non-interactive, prerecorded 1.5 hour video presentation. After watching the video presentation, we were asked to re-design or improve the FIT workshop that we attended by choosing an active learning strategy.

While it was difficult to determine the actual number of participants due to the way the discussion topics were arranged, I would estimate that approximately 10 people "attended".

2 Workshop Details and Analysis

The workshop began with a 1.5 hour video, available in Cisco WebEx format. The video was originally recorded on February 9, 2011, and begin with Seven Principles for Good Practice, a set of general guidelines for effective teaching. The purpose of the workshop was to demonstrate active learning techniques that could be implemented in an online environment, rather than techniques that are for more general classroom settings.

The online workshop presented the Jigsaw Activity as a way for students to share content information. In this technique, students are placed into two groups: an expert group and a home group. After the student becomes an expert on their respective topic, a member from each expert group would return to their home group to explain the topic to other members. The lecturer explained that this technique could be applied to online learning through the use of discussion boards.

A good portion of the lecture was a survey of available tools that could be used in an online environment. These tools include Respondus' StudyMate[1], which can be used to generate

[1] `http://www.respondus.com/products/studymate.shtml`

Web-based activities such as flash cards, crosswords, matching, and so on. Raptivity[2] is a similar tool. On the free end, Hot Potatoes[3] offers six applications for interactive assessment, while Flash Card Machine[4], as the name implies, allow students and teachers to make flash cards. After the lecture, I examined the tools in more details. While the tools were certainly interesting, the majority of the activities appeared to focused on the lower levels of Bloom's Taxonomy, such as Remembering.

After the presentation, we were provided with PowerPoint slides to download for off-line reading. A minor criticism of the slides is that, while they mostly mirror the actual presentation, they are not actually the same. However, one benefit of online lectures versus a traditional classroom is that a student can download the lecture and watch it again, which I was able to do several times during the workshop.

One of the more significant issues is that I felt the video format was not appropriate for this type of lecture. A video lecture is incredibly useful when a complex or confusing concept needs to be presented in conjunction with some diagram, but in this case, the lecturer was mostly repeating what was essentially on the slide verbatim. Consequently, the presentation often felt as if it were simply a very long bulleted list of resources.

Interestingly, I have previous attended the "Effective Question Techniques" lecture, where I focused on the Dead-End question type, a question type, which, incidentally, was also used throughout this online video. It would have been nice to see a presentation on active learning techniques in an online environment that actually used the techniques themselves. Another issue is that it's difficult to remember all of the learning techniques when so many of them are presented in the same lecture. An improvement may be to focus only on a few online learning techniques in greater detail.

3 Conclusion

My interest in this workshop arose from the fact that I am teaching a distance Database Concepts class at Wayne Community College this semester, with a particularly large section (45 students). Since manual grading is impractical with such a large class size, I explored automated Classroom Assessment Techniques (CATs) to gain insight into whether the students are learning the material as well as to evaluate them.

Because the course is in Microsoft Access, one of the products that I am using this semester is SAM (Skills Assessment Manager) 2010. This is an online service that allows students to download starting files for an Access project, and then allows them to make modifications to the file and re-upload it to the system. The system will then automatically grade the files and assign a score, and provide a report to the student describing the items that they have missed. The instructor can specify the number of attempts for each assignment. The major advantage of this approach is that assessment is instantaneous for the student, versus hand grading which has a several day turn around time. The downside

[2] `http://www.raptivity.com/elearning-product/raptivity-software/raptivity-essential`

[3] `http://hotpot.uvic.ca/`

[4] `http://www.flashcardmachine.com/`

is that creativity is limited for the student; the student must follow the instructions exactly, and little leeway is given to the student to try things that are not specifically required in the assignment.

While automatically graded assignments certainly minimize the level of work for the instructor, it is the training modules that I have found most useful from an active learning perspective. These Flash-based training modules actually provide the student with a simulated computer desktop, where the system will first show them how to perform a task. The student must then perform the task that they have just seen. I think this style of learning is great because it falls into the category of "practice by doing", which Sousa (2001) shows as being in the 70 percentile in terms of retention. Only "teaching others" is higher.

Discussion forums have never quite worked for me. Students are encouraged to post to discussion forums if they have problems or confusion about an assignment. I find that initially a limited number of students will use them, and then the student will quickly return to e-mailing me or instant messaging me because the feedback is more reliable and accurate than those of other students. I also think the reason for the limited utility of the discussion forums is that some students are embarrassed to admit to their peers that they do not understand a topic (even though their colleagues likely don't understand it either!). The second reason is that several iterations are often required to figure out the answer to a question, which can add significant time to getting to the bottom of issue, whereas the real-time nature instant messaging is more effective in quickly resolving student problems.

At NC State, Wiki assignments are used in the graduate course Object-Oriented Languages and Systems, where small groups of students would be assigned a specialized topic and then they would collaboratively write an entry on the topic. I believe that students did get a lot of out of this type of activity, but assessing the quality of the work was difficult. The use a Wiki also required students to learn the MediaWiki syntax in order to format their pages correctly, which is yet another technical hurdle.

Perhaps the most important conclusion, particularly with online learning, is that even though a wide variety of technology is available, it should be used wisely. While students may be willing to try a variety of active learning techniques in a traditional classroom, students quickly become frustrated when they must learn a new piece of technology to complete an assignment. In such a case, the technology becomes a distraction to learning, rather than an aid. It is a delicate balance to minimize boredom by avoiding repeated activities without introducing too many new or disjoint technologies in the online classroom.