Using Multiple Techniques for Effectively Assessing Online Learners

In an online classroom, determining whether or not students are actually learning the material being presented to them presents a unique set of challenges.

Perceived Limitations of the Online World

One perceived disadvantage is that the absence of nonverbal clues and other informal observations in an online classroom can pose limitations on a faculty member's ability to accurately gauge whether or not a student is "getting it" or not (Pennsylvania State University 1998, n.p.).

For many faculty, however, such limitations are non existent as a number of online-oriented, learning-assessment techniques frequently produce effective results comparable to or better than what's found in a face-to-face learning environment.

Bringing Activities, Discussions and Peer Evaluations to the Online Class

For instance, Joseph Rosenbeck, associate professor in the Department of Civil Engineering Technology, Environmental Management & Safety, uses a

Welcome . . .

Welcome to the first issue of our newsletter covering online teaching and learning.

Our purpose here is to provide you with the latest and greatest information about the RIT Online Learning Department, as well as provide some tips for better managing your online teaching experience.

We'll also try to keep you abreast of some of the interesting things that are happening in the field of online learning at other institutions and educational organizations around the country.

The Online Learning Department's professional staff provides a wide range of educational technology support services to all RIT faculty, including training and support in the development and implementation of both fully online and technology-enhanced courses and programs. For more information, call 475-5089, TTY: 475-5896, e-mail: online@rit.edu.

Best regards,
Joeann Humbert
Director of Online Learning

combination of tests and quizzes, individual exercises with a focus on practical applications, peer evaluation, group activities, and threaded discussions to assess learners in his online classes.

Rosenbeck assigns point values, that ultimately determine students' final grades, to every exercise and assignment incorporated into his online classes. He claims that such point systems assure active and significant student participation that in turn helps him understand how much his students are actually learning.

Rosenbeck's Auditing Class

As an example of how the point system works, Rosenbeck begins by assigning the following percentage values in his online Environmental Health & Safety Auditing class:

20 percent	Individual Assignments
40 percent	Team Exercises
10 percent	Class participation and Discussion
30 percent	Quizzes

Ensuring that Students are Actually Doing the Necessary Work

The purpose of quizzes is fairly straight forward: "to test knowledge," says Rosenbeck. "I want to make sure they are reading the assignments, watching the video-taped lectures, and paying attention to the threaded discussions. I will formulate questions for the quizzes from all of these areas."

Over the course of one quarter, students in the auditing class take eight quizzes, each worth 10 points. Students can also earn one extra credit point for each quiz if they create two well-written

What's Inside. . .

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and properly cited multiple choice questions from an assigned topic.

Critical Thinking Enhanced

"For the actual practical application of the materials, students do individual assignments where they have to assess problems and come up with solutions," says Rosenbeck. "Then I'll take some of the individual completed assignments and post them into the student discussion board (anonymously) and have the students evaluate each other's work (also anonymously)." In this scenario, the students basically submit critiques of each other's assignments.

"It makes them learn from each other and think in a critical manner," he says. "They are rewarded points for how well they provide critiques. I'll ask several questions, for example, and they have to determine how well they (their fellow classmates) answered those questions." Based on an analysis of their critiques, Rosenbeck can tell how well the students understood the material being covered.

Learning by Doing and Working Collaboratively as a Team

The team exercises portion of Rosenbeck's class includes one face-to-face element where students come to RIT for a weekend to take part in what's called an "Executive Leader Session," which is held near the end of the quarter. Other team exercises, which are directly related to the Executive Leader Session, are con-

ducted prior to the students arriving at RIT. These sessions entail actual work in the field over the assigned weekend, whereby teams of four to five students conduct mock environmental health and safety audits of companies located in the Rochester area.

Prior to performing the actual mock audits, team members must, as a group, complete a series of exercises, such as develop pre-audit questionnaires, protocols and other planning formali-

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ties. Typically, to ensure good communication and organization links, the group will set up a team discussion folder as well as hold live chat sessions with the chat transcriptions posted back to the group and to Rosenbeck for review.

Similar to the individual assignments, the team exercises have peer-to-peer evaluation components. Part of the reason for the evaluations is to ensure that all team members contribute their fair share to the group.

"I have them evaluate each other as far as their participation in the group," says Rosenbeck. "I have a form they complete. I give the team a grade based on what they submit to me. Then individually they can lose points depending on how well they participated

in the overall activities of the group based on the team members' evaluations, which are anonymous."

Rosenbeck adds that if a student happens to lose points on the first team exercise, he or she inevitably does not lose points thereafter.

Only Meaningful Posts Please

Another important part of Rosenbeck's online classes deals with engaging students in meaningful threaded class discussions. Students are "expected to contribute at least one substantive comment to the class discussion each week," he says.

Rosenbeck gets this process started by awarding 10 points to all students who post a "substantive" introduction that must contain the following information: name, current status in life, past work experience, past experiences with EHS audits, why you are taking this course, and what you expect to learn from taking this course.

Facilitating a Comfort Zone

Overall, upon reviewing all the activity occurring inside Rosenbeck's online class, one can see that these students "do a lot of work," he says. "Without the face-to-face interaction, I won't feel comfortable that they know all this material unless I have them do all this work."

References:

Pennsylvania State University. An Emerging Set of Guiding Principles and Practices for the Design and Development of Distance Education. University Park: Innovations in Distance Education, PSU, 1998.

http://www.cde.psu.edu/DE/IDE/guiding_principles/

Exemplary Teaching Award Recipient Devoted Teacher and Learner

Deborah Coleman, assistant professor in the B. Thomas Galisano College of Computing and Information Sciences, Department of Information Technology, has been teaching online courses at RIT for about three years, but her online learning and teaching experiences go far beyond that.

Global Industry Experience

She has more than 25 years experience working in the Information Technology (IT) field as a software development manager, programmer, data architect and consultant for global companies such as Kodak and Xerox, where she collaborated with colleagues all over the world and learned how to communicate effectively within remote environments, "often through the same methods that we use in distance learning," she says. Additionally, Coleman earned her master's degree in software development and management primarily at a distance through RIT before taking on her assistant professor position.

This combination of work, education and teaching experience - all related to various facets of online learning - combined with her clear articulation of 11 guiding principles for distance learning that she has developed over the years, were part of the deciding factors for Coleman being honored with an RIT 2003 Exemplary Teaching Award for Distance Learning.

Creating Community

In addition to closely adhering to these principles, Coleman says she strives to create a collegiate community in all of the online courses she teaches. "I like to lead my distance learning courses by not just putting material out there and having students respond to it," she explains. "I like to look at the complexion of the students in the class. They each bring new experiences, and they have different levels of knowledge. I like to leverage that knowledge and create an open environment where people can share.

"So I look for the uniqueness in each

Deborah Coleman

student," she continues, "just like I would in the classroom where we raise our hands and have conversations and students question what I say or what someone else has said.

"I also want them to feel like they are part of a university culture, and that there is a sense of belonging. I let them know what is happening on-campus; I talk about the weather; I create an atmosphere; I try to make them feel like they are part of a bigger whole."

Feedback is Essential

Of course, creating dynamic online communities and implementing all of her 11 principles does not come easy. Coleman admits that she spends about 50 percent more time teaching online than she does in a traditional, face-to-face class. "A big part of my teaching is that feedback is essential," she says. "Grades and letters did not tell me anything when I was a student. I try to put myself in the place of the student, so I give a lot of feedback."

She feels that her efforts are well worth it because typically online learners "are overwhelmingly serious about learning. These students are not taking distance courses as an easy means to a degree. Distance students are physically separate in locality but educationally and motivationally in concert."

Coleman's 11 principles for Effective Online Learning
"Aids in Developing a Pathway to Learning"

1. Establish course management expectation and deliver on those expectations.
2. Post weekly announcements describing essential elements for the week ahead.
3. Text is abundantly ambiguous, therefore key concepts must be introduced from multiple perspectives using multiple means.
4. Pictures, graphs, models, tutorials and discussions are necessary in supporting text-based material.
5. Be involved in online discussions. Students appreciate a level of participation on the part of the instructor that lends an anchor to topic discussions.
6. Don't be involved in discussions. Students also appreciate having a student-only collaboration thread where they can exchange ideas, approaches and technological solutions.
7. Provide feedback early and often. It is essential for instructors to inform students about work done well and work that needs improvement.
8. Provide alternative modes of communication to students - i.e., phone, in-person, live chats as individuals or in groups.
9. Be prepared to facilitate repeating questions.
10. Use PowerPoint slides as a basis for questions. Although alone PowerPoint slides are succinct and not generally informative, they are a good source for questions and for a forum for the learning that transpires through inquiry.
11. Involve students in deciding when, where and if course conferences are to be held. Distance students come from varied backgrounds and have many opinions about distance conferencing. Some feel these are essential, others feel they are a waste of time, while others can't be bothered by any scheduled-meeting demands.

Technical Tips

How to Speed up the Grade Book in myCourses

If your Grade Book takes too much time refreshing the screen, consider one or both of the following two options:

Option 1: Use Internet Explorer, It works better with the Grade Book than Netscape. **Resize the Grade Book** by changing the number of Graded Items visible across, or number of Students visible down to 5 or 10 (as shown below)

 1. Go to Grade Book
 2. Select the Options button
 3. Resize Viewed Grade Book as shown below:

Resize Viewed Grade Book

Number of Graded Items (across)   5
Number of Students (down)   10
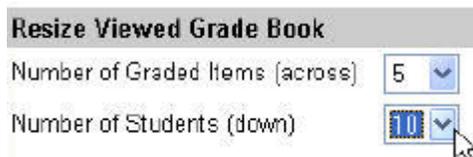
Option 2: Disable Math. By default Math is enabled in the myCourses Grade Book, so every time you go to the Grade Book, myCourses calculates all entries. If you disable math, the Grade Book page will load quicker.

Try disabling math until you have completed entering all the grades (at the end of the quarter), or until you really need the averages. Students will still see their grades on individual assignments

 1. Go to Grade Book
 2. Select the Options button
 3. Choose the appropriate choice from the Mathematical Calculations section as shown below:

Mathematical Calculations

Currently Math is: Disabled
Calculate Final Grade :   using Weighted Averages

myCourses Workshops

Two-hour **Getting Started With myCourses Workshops** for all RIT faculty are available on the following dates and times:

Sept 15, 1 p.m, Wallace Library.; October 9, noon, Bldg. 5; Oct. 21, 6 p.m., Bldg. 5; and Nov. 4, noon, Bldg. 5

For more information and to register online, please visit the faculty section of the RIT Online Learning Web site at **http://online.rit.edu/faculty/**.

At these workshops, you'll learn how myCourses can work for you and your students. You'll learn how courses are created and populated with students. You'll learn how to make your syllabus and outline available to your students anytime. You'll discover how to use your course or course components again in future quarters. You will see how the Messages feature can be a great communication tool for you and your students. You'll get hands on experience in creating links to relevant web resources and find out how the library can link e-reserves into your myCourses Outline or Syllabus. You'll learn to upload files and create easy student access to them in myCourses. Finally, you will learn how to turn on and off key features in myCourses by using the Utilities panel. If you're new to myCourses or you just want a refresher, this workshop is for you.

Survey Says Online Learning is as Good as Being There

From the Ivy League to tiny community colleges, a majority of institutes of higher education say online learning is just as good as traditional, face-to-face classroom instruction. Nearly three out of four academic leaders say learning online may be better within three years. A comprehensive survey released by Babson College and the Sloan Consortium concludes that online learning is at historically high levels and will continue to grow at a rate of nearly 20%.

The 2003 Sloan Survey of Online Learning polled academic leaders at degree granting institutions of higher education in the United States. When asked to compare the online learning outcomes with those of face-to-face instruction a majority said they are equal. Two out of every three also responded that online learning is critical to their long-term strategy.

Sizing the Opportunity: The Quality and Extent of Online Education in the United States, 2002 and 2003 also looks at characteristics of online learners, student and faculty perceptions as well as how private and public institutions approach online learning. The study was supported by the Alfred P. Sloan Foundation and conducted by the Sloan Consortium, of which RIT is a member, and Babson College. Sloan-C membership is growing rapidly and includes over 380 institutions and organizations that share knowledge about effective online learning.

Download the survey at:
http://www.sloan-c.org/resources/online.asp

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