



MAGNA ONLINE SEMINARS

Increasing Cognitive Engagement in the Online Classroom

Thursday, March 26, 2009

1:00 PM – 2:00 PM (Eastern)

12:00 PM – 1:00 PM (Central)

11:00 AM – 12:00 PM (Mountain)

10:00 AM – 11:00 AM (Pacific)

(Times listed are daylight saving time)

Presented by:

Jean Mandernach, Ph.D.



Today's presenter:

B. Jean Mandernach, Ph.D. is associate professor of Psychology and research associate for the Center for Excellence in Teaching and Learning at Park University. Dr. Mandernach received her Ph.D. in social psychology from University of Nebraska at Lincoln and has spent the majority of her career studying the scholarship of teaching and learning. As a full-time telecommuter teaching undergraduate psychology courses online, time not spent in the virtual classroom is dedicated to research on enhancing student learning through assessment, innovative online instructional strategies, evaluation of online faculty, fostering student engagement and the promotion of critical thinking.



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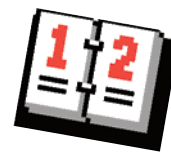
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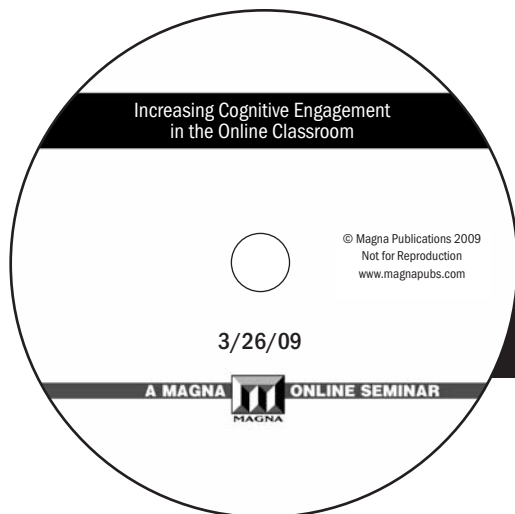
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Increasing Cognitive Engagement in the Online Classroom

B. Jean Mandernach, PhD
Associate Professor of Psychology and Online Learning
Park University

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Student Engagement

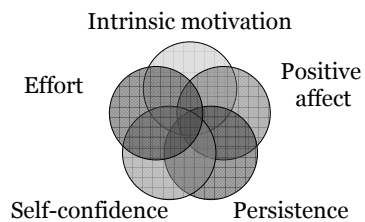
What is student engagement?

2



Defining Engagement

Rooted in a combination of personality,
affective, motivational and persistence
factors applied to the learning process:



3

Student Engagement



How do you know if your students are engaged?

4

Cognitive Engagement



Engagement rests upon “students’ willingness, need, desire and compulsion to participate in, and be successful in, the learning process”

– Bomia, Beluzo, Demeester, Elander, Johnson & Sheldon, 1997, p. 294

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Cognitive Engagement



Students with high levels of engagement:

- Enjoy the process of learning
- Persist in their scholarly work despite challenges and obstacles
- Gain satisfaction from scholarly accomplishments

6

Cognitive Engagement



- Goes beyond simple emphasis on cognitive outcomes
- Highlights students' active role in the process of learning

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Online Classroom



- Engagement attributes are important in all learning environments
- Student engagement becomes *imperative* in the virtual classroom

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Online Engagement



- What do you do to promote students' cognitive engagement?
- How do you know when your students are engaged?

9

What do we know?



Cognitive engagement in online courses is highest when:

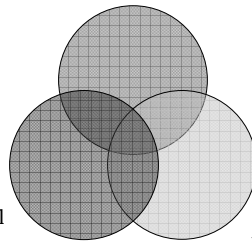
1. Learning is active and authentic
2. Students feel a personal connection with their instructor
3. Learners are comfortable with online technologies

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Online Instructor Goals



Integrate active
learning environments



Foster a personal
connection

Facilitate the
process of learning

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Engagement Theory



- Students must be meaningfully engaged
 - Interaction with others and worthwhile tasks
- Learning activities involve active processes
 - Creating, problem-solving, reasoning, decision-making, and evaluation
- Students must be intrinsically motivated
 - Meaningful learning environment and activities

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Active Learning



- Online strategies:
 - Asynchronous threaded discussions
 - Synchronous interactions
- Increase the extent and ease of interaction among all students (and access to information)

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Discussion Boards



- Full-spectrum questions:
 - probe the “so what!” response
 - clarify meaning or conceptual vocabulary
 - explore assumptions, sources and rationale
 - seek to identify causes and effects or outcomes
 - consider appropriate action

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Active Learning Assignments



- Alternative Assignments:
 - Blogs
 - Wikis
 - Podcasting
 - Service-learning
 - Multimedia presentations
 - Debates
 - Quizzes
 - Email
 - File sharing
 - Video and/or picture sharing websites (www.youtube.com, www.teachertube.com, www.flickr.com)

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Digital Assignments



- Make meaningful, relevant and frequent
- Provide supporting resources
- Create designated learning communities
- Ensure timely, detailed, adequate feedback
- Integrate case studies, videos, audio, simulations, etc.

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Authentic Tasks



- Collaborative work
 - Group activities
- Community engagement
 - Experience and report, field activities
- Resource development
 - Websites, videos, multimedia
- Case studies
 - Scenarios, videos, interactive multimedia

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Personal Connection



- Many take online courses due to geographic or scheduling limitations
 - NOT because they enjoy learning in isolation
- Students more engaged when technology provides medium for interacting
 - NOT when they're interacting with technology

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Personalizing Learning



- Make your presence visible
 - Participate in threaded discussions
 - Pick up the phone
 - Instructor-personalized multimedia
 - Video, audio, photo

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Personalizing Learning



Examples:

- <http://www.youtube.com/watch?v=V9XjUFchJSk>
- <http://www.youtube.com/watch?v=wsxlzjDzjWg>
- <http://www.youtube.com/watch?v=dd827FOxug4>
- <http://www.youtube.com/watch?v=xXsTcCj-g6Y>
- <http://www.youtube.com/watch?v=4muo6jXzLX8>
- <http://www.youtube.com/watch?v=xzOsgkOJRYA>

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Personalizing Learning



- Create learning activities to foster student-student engagement
 - Targeted threaded discussions
 - Video interactions
 - Wikis

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Facilitating the Online Learning Experience



- Many have limited experience in virtual classroom
- Students more engaged online when they are:
 - comfortable with technology
 - familiar with online learning
 - experienced with relevant technologies

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Getting Started



- What do your online students expect from you?
 - How will you know this?
- What do you expect from your online students?
 - How will they know this?

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Course Design



- Key factors:
 - Ease of use
 - Usefulness
- Instructional considerations:
 - General training on PC skills
 - General training on course management system
 - General training on online learning strategies

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Course Design



- Enhance students' cognitive information processing skills:
 - provide organized instruction
 - arrange extensive and variable practice
 - enhance learner's encoding and memory
 - enhance learner's self-control of information processing

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Course Design



- Integrate and utilize students' motivations and strategies in their learning
- Remove barriers that waste cognitive energy

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Multimedia Principles



Use relevant, instructional graphics to supplement written text.

- Contiguity principle – graphics and text must be close together on screen
- Modality principle – including audio enhances learning

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Multimedia Principles



- Redundancy principle – audio to supplement graphics instead of redundant text to reduce cognitive overload
- Coherence principle – nonessential visuals, text and sound impede learning
- Personalization – conversation tone and learning agent (person or character) enhances learning

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Online Instructor Goals



1. Integrate active learning environments with authentic learning tasks
2. Foster personal connection with students
3. Facilitate process of learning in online environment

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Final Thoughts



“Teaching is the creation of opportunities that facilitate learning ... learning is essentially a social process, requiring communication among learner, teacher and others. This social process cannot effectively be replaced by technology, but technology may facilitate, and even enhance, it.”

~Bates and Poole, 2003

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Questions for Further Discussion

1. How do you engage students in the traditional classroom? How can you transfer successful engagement strategies from the face-to-face classroom to enhance engagement in your online classroom?
2. How will you know if your online students are engaged? What does engagement look like in the online classroom?
3. What can you do to promote students' intrinsic interest in the academic content of your course? What do you do when students seem to have little interest in your course content (i.e., general studies or required courses)?
4. What instructional practices may foster students' persistence in learning when faced with challenges (either academic or technical) in the online classroom?
5. What resources do you have available at your institution to facilitate students' comfort and mastery of the relevant technologies to succeed in your online course?
6. How might you structure your course assessments to promote engagement? Does an activity have to be a graded component of the course to effectively engage students?
7. What activities can you integrate into the course mix to encourage student-to-student interaction relevant to the course material? What special considerations must you take into consideration when requiring student-to-student engagement in your online courses?
8. How much of your personality is currently evident in your online course? Where in an online course is it most appropriate and relevant to integrate personalized instructional components?
9. What technologies do you have available at your institution that may be useful for increasing student engagement? What resources are available at your institution to help you take advantage of these technologies?
10. How will you monitor the impact of your instructional modifications to know if you are positively impacting your students' levels of engagement?
11. What are the greatest barriers to fostering engagement in the online classroom? How might you address these barriers?
12. How might you modify your instructional and/or assessment approaches to encourage students to actively apply the material to their own lives?
13. To what extent does one need to balance the need for rote learning with the desire to have students actively engage and think critically about course material?
14. Is course engagement more problematic in online courses (as compared to their face-to-face counterparts) due to the individualized nature of online learning and the range of activities readily available on the computer? If so, how do we address this issue within our online courses?
15. How might one take advantage of the unique format and technologies of the online classroom to promote engagement in ways not possible in a traditional classroom?

Student Engagement Reflective Self-Assessment

As you reflect on the topic of student engagement, think about how this applies in each of your online courses. Complete this self-assessment separately for each course that you teach online as your goals and methods for fostering student engagement may vary based upon the level, nature, purpose, and student characteristics in each course.

Course title:	
Course level:	
Number of students in class:	
Length of class period:	
Student population characteristics:	
Course format:	
Resources available:	
Instructional strategies:	
Assessment activities:	

Reflection Questions

Course level:

- To what extent does the level of your course (upper division versus general studies; undergraduate versus graduate) impact your expectations about student engagement?
- How might student engagement look different at different course levels?
- Do your strategies to promote engagement vary depending on whether or not the students are taking the course as a requirement or elective? Major or non-major?

Number of students in class:

- How does the size of your class impact students' engagement?
- What strategies can you incorporate into large classes to foster engagement?
- How do you measure/monitor student engagement in large courses compared to smaller ones?

Length of class period:

- Do you believe student engagement differs based upon the length of the class period (50-minute; 75-minute; 3-hours; 5-hours, etc)?
- How do strategies for enhancing engagement vary based upon the length of your class period?
- What techniques can be incorporated into longer classes to sustain students' engagement?

Student population characteristics:

- To what extent does student engagement vary based upon the characteristics of your student population (traditional, non-traditional, military, etc)?
- How can you utilize the unique aspects each individual brings to the class to maximize engagement for all students?
- What can you do to foster engagement in a class with a mix of students representing various ages, backgrounds, ethnicities and interests?

Course format:

- How do your strategies for monitoring student engagement change depending on the format of the class (online or face-to-face)?
- What unique considerations are present when addressing student engagement in each format?
- How can you best utilize the features inherent in each format to maximize student engagement?

Resources available:

- What resources are available to you in teaching the course (classroom technologies, online technologies, software, etc)?
- What resources are you comfortable using within your courses to enhance engagement?
- How much preparation time will it require to implement the various techniques to promote student engagement? Do you have the necessary time available?

Instructional strategies:

- What instructional strategies are you most comfortable using in this course? How might you adapt these strategies to foster increased student engagement?
- What new instructional strategies might you introduce to facilitate increased student engagement?
- How can you integrate peer-teaching to promote student engagement in this course?

Assessment activities:

- To what extent are the assessment activities in this course authentic measures of your key learning outcomes?
- How might you adapt assessment activities to be more authentic and active?
- What kind of alternate assessment activities can you incorporate into this course to foster student engagement?

Suggested Readings

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MARCH 2009

Three Ways to Improve Student Engagement in the Online Classroom

By B. Jean Mandernach, PhD

Research has documented a host of educational benefits gained through heightened student engagement; unfortunately, it has simultaneously documented myriad challenges to engaging students in a meaningful fashion. The value and importance of student engagement is not unique to any mode or form of teaching. But the importance and value of student engagement may be even more pronounced in the online classroom, where students are learning in a physically isolated environment. As such, online educators must be especially diligent in their quest to actively engage students in the learning process.

The key to student cognitive engagement is that it goes beyond simple active learning; student engagement is rooted in a combination of personality, affective, motivational, and persistence factors applied to the learning process; it “includes attributes like intrinsic motivation, positive affect, persistence, effort and self-confidence” (Ruhe, 2006, p. 1).

A quick look at this list of engagement attributes seems to take the pressure off the instructor;

it seems as though the heart of engagement rests within the student ... the *student's* interest in the topics, the *student's* attitude about learning, the *student's* willingness to put in the necessary time and effort to learn the material, and the student's belief that he or she is capable of mastering the required course concepts. So where is the instructor's role in the engagement equation?

The instructor must create a learning environment that promotes, fosters, and activates the students' affective, motivational, and persistence attributes. We must create a learning experience that ensures that students are active partners in the process of learning. To enhance students' cognitive engagement in online courses, instructors must

1. integrate active learning environments with authentic learning tasks;
2. foster a personal connection with students; and
3. facilitate the process of learning in an online environment.

Active/authentic learning—

When designing learning tasks, ask yourself, “What will students gain

CONTINUED ON PAGE 2 >>

TIPS FROM THE PROS

Using Audio to Enhance Online Courses

Scott Horton, instructional technology coordinator at Northwest College in Wyoming, uses Gabcast for his online digital photography courses and has recommended it to his colleagues, who have found some creative uses for it as well. Here are some examples of how Horton and his colleagues use Gabcast:

- **Introductions**—At the beginning of a course, some instructors record a brief introduction using Gabcast and invite students to do so as well. “It just gives a whole different slant, where you're not just reading about people, but you're also hearing about them in their own words,” Horton says.
- **Guest lectures**—Horton has guest lecturers speak on a topic remotely by telephone, captures it using Gabcast, and imports it into the learning management system (in his case, WebCT). These lectures are typically 20 minutes in duration and provide students with ideas from experts they might not otherwise have access to.

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by completing this task?" and "How will I know if students have mastered the essential knowledge/skills?" Online instructors can integrate videos, websites, blogs, audio, and other multimedia that may be used to more effectively showcase students' understanding. Alternatively, instructors may want to integrate collaborative online activities using wikis or threaded discussions to encourage interactive knowledge building, or take advantage of the geographic differences by having students participate in community activities or field trips and bring their unique experiences back to the online classroom. Through effective design of learning tasks and integration of novel assessments, instructors can spark enthusiasm in their students and foster increased interest in the course material.

Personal connection—

Instructors must ensure that they design an online learning experience that encourages a personal connection between themselves and their students, as well as among the various students in the class. Something as simple as personal introductions, short videos introducing course concepts, or instructor-narrated PowerPoint presentations can bring the "human" factor to the online classroom. Students don't just want an expert, they want *their instructor*. When students feel like they know you and have a connection with you, they are more likely to seek you out when they need additional assistance.

Facilitate online learning— It is important that instructors recognize that students cannot be effectively engaged in the course material if they are overwhelmed with the technology. Instructors need to ensure that course design is consistent, logical, and integrates

adequate directives. Online instructors must be prepared to teach the process of online learning to those that may need additional support. Because cognitive engagement involves the integration and utilization of students' motivations and strategies in the course of their learning, instructors must remove technology barriers that waste cognitive energy.

Through deliberate attention to the issue of students' cognitive engagement, instructors can enhance students' interest in the discipline, increase students' willingness to take future online classes and improve retention in their online courses. As highlighted by Bates and Poole (2003, p. 35), "Teaching is the creation of opportunities that facilitate learning ... learning is essentially a social process, requiring communication among learner, teacher and others. This social process cannot effectively be replaced by technology, but technology may facilitate, and even enhance, it."

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Ruhe, V. (2006). A toolkit for writing surveys to measure student engagement, reflective and responsible learning. Retrieved July 22, 2008, from www1.umn.edu/innovate/toolkit.pdf.

B. Jean Mandernach is an associate professor of psychology and research associate for the Center for Excellence in Teaching and Learning at Park University. She will present the March 26 Magna Online Seminar "Increasing Cognitive Engagement in the Online Classroom." More information is available at www.magnapubs.com/calendar/297.html. @

Clarity and Consistency are Essential to Effective Online Grading

By Tim J. Bristol, PhD

Using online tools in student assessment is an important strategy for today's faculty. These grading tools offer faculty and students many efficiencies and enhancements that allow for success and satisfaction in the assessment process. Online gradebooks allow for quick feedback in a logical format. Students can access their grades at their leisure. The online gradebook allows for connections between numerical grades and narrative feedback (e.g., instructor comments on a quiz). The gradebook can save faculty time in organization and communication to students.

Online quizzing is another area of efficiency and enhancement. These tools are usually available to most faculty, and can be used for graded and nongraded assignments. They can be administered in a face-to-face environment or fully online. When the tools include multiple-choice, true/false, and matching questions, the students can receive instant feedback. When essay questions are used, the instructor will not need to worry about lost papers and exams, as all are "locked" behind a password on a secure server. One final advantage of online exams is the item analysis that can be generated. Most online quizzing tools allow for instant item analysis reports that help faculty judge the validity and reliability of the exams.

Other online assessment strategies and tools that bring benefit to academia include the online discussion, online projects, and online group work. These tools allow for enhanced interactions compared to the face-to-face environment while

building flexibility and realism into the curriculum.

Regardless of the online tool being used for assessment, two key principles must be addressed. These principles are clarity and consistency.

Clarity

Clear communications and guidelines are vital to the success of online assessment. The issues that drive the need for clarity are twofold. First, when online tools are used, there are different and sometimes fewer directional cues for the learner. These missing cues can be everything from handouts to facial expressions. When assessments are done online, there is a need to compensate for some of these cues. Compensation can come in the form of reminders in online announcements and emails. Other cues may come from online exam instructions and reminders in the stem of a discussion.

The second issue that drives the need for clarity involves adult learning theory. Adult learners come with many expectations of the learning environment. And since more adult learners are joining all academic settings, we are wise to consider their characteristics. Knowles, Holton, and Swanson (2005) discuss the fact that adult learners have a need for rationale and are quite motivated. This means that an assessment process that is confusing or poorly developed can cause them significant stress. This stress can adversely affect the assessment. In turn, this may lead to a bad grade and poor data for the faculty.

Strategies that can enhance clarity with online assessment often relate to verbiage. "Do the

instructions make sense?" Ask an assistant or family member to read the instructions. If there are any questions, consider this a clue as to what students will experience. Another strategy is to "test-drive" instructions with students through a low-stakes event. For instance, have the online quiz be an in-class activity or extra-credit activity.

Clarity should be sought in all descriptions and steps in the process. In the beginning, some complexity may be left out of the process for the sake of ensuring that the first run is smooth. An example may be turning in papers digitally. The instructor has as an ultimate goal to have students attach a grading rubric to each paper before submitting both to the drop box. If this is the first time the instructor intends to use the drop box, consider skipping the requirement to attach the grading rubric. Save that for after the drop box tool has been mastered by faculty and students alike.

Another important part of developing instructions is the use of images. Images of the computer screen can be captured and pasted into the instructions. Using screen captures can clarify written instructions—when the instructions say "click the submit button" a picture of the submit button can be shown.

If these concepts seem difficult, ask a student helper to assist with image capture and edit. Student helpers have made my life a lot easier when it comes to technology.

As these tips demonstrate, there can be a lot of room for confusion when online assessment is used.

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Get Into the Game. Pump Up Your Online Courses, Part 5

By Patti Shank, PhD, CPT

In this series of articles, I am discussing practical ideas that you can adopt or adapt for your online courses. The goal is to help you consider new ways to engage students, add depth to existing (and new) content and assignments, and make the learning experience richer for all.

In this article, I'm going to discuss a brainstorming game that can be adapted for a variety of purposes and content areas and can be played in a discussion forum. If you think a game implies silliness, think again! Good games can help students think deeply and learn from each other. So call this activity whatever you like, but consider using it because it can be a very engaging alternative to the typical-but-often-boring activity of posting answers to discussion questions.

This month's game idea is adapted from one of Dr. Sivasailam Thiagarajan's email games. His website, www.thiagi.com, is a treasure trove of game ideas.

An example

I'm going to walk you through an example game for an online instructional design course. When instructional designers work on online courses with faculty members or subject matter experts (SMEs), certain problems typically arise. And many of these problems can be prevented. But rather than telling students how to prevent these problems, I engage them in a discussion forum game so they develop the solutions themselves (which means they are more likely to remember and use them). The game is described next.

Round One:

I want students to brainstorm ways to prevent the typical problems that occur when working with faculty or SMEs. I create a Working with Faculty and SMEs discussion folder, and inside that folder are instructions for the activity and three topics, one for each problem category. In each topic, I list the typical problems in that category and one or two example solutions. Here are abbreviated instructions for round one of the game:

In this first round of brainstorming, we'll first generate a list of solutions to typical problems that occur when instructional designers and faculty members or SMEs work together. These problems are divided into three categories: communication problems, time problems, and process/role problems. In each problem topic, you should first read the list of problems and then submit solutions to problems in that category. I added one solution in each topic to get the brainstorming started. Here is an example:

Communication problems:

- Set up ongoing status meetings through the final deliverable.

Time problems:

- Call or meet in person rather than email when urgent issues arise.

Process/role problems:

- Tweak the design process to work around the faculty member's or SME's schedule and obligations.

This is a contest and the winners will win fabulous prizes. In round one, I will award 10 points for each solution posted (to the person

posting it), but only the first person to submit a specific solution receives the 10 points. But if two or more people submit the same solution, the one that I think is the most clearly and compellingly written will get the 10 points (so in addition to adding unique solutions, feel free to take someone else's idea and make it better and steal their 10 points). I also reserve the right to delete solutions if I find them to be objectionable or silly. Deleted posts will not receive points. (The decision of the judge, me, is final.)

Students submit solutions during the designated time period. At the end of the time period, I tally the points and post them.

Round Two:

In this round, I want students to determine which of the posted solutions are best. I explain that the best solutions are applicable in many contexts and are most likely to work. I add another three topics to the "Working with Faculty and SMEs" discussion folder: best communication problem solutions, best time problem solutions, and best process/role problem solutions.

All students are allotted 10 votes. They can divide those votes among the solutions they think are best (in 1- to 10-point increments until all 10 votes are used up).

Students submit their votes during the designated time period. At the end of the time period, I tally the points and post the winning solutions.

Award ceremony:

At the end of both rounds I award a get-out-of-jail-free pass to the student with the top number of points (round one) and another to

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the student whose solution got the top vote points (round two). They can use the passes to be up to three days late with any assignment without incurring any penalty.

Your turn

Now it's time to apply this game to your online courses. Some suggestions:

Specify what students will be brainstorming. It should be something worthy enough of this much thought and attention: something you want students to really remember. Thiagi's site recommends asking for tips or solutions that can be stated as how-tos.

Examples: how to make financial statements understandable to nonfinancial people, how to write engaging headlines, how to improve workplace safety, how to disagree agreeably, and so on.

Provide the categories and an example tip or solution in each category. Determine how points will be awarded. Determine how prizes will be awarded. Points and prizes should incentivize what you want students to do. (I incentivized being first to propose a specific solution, submitting more than one solution, and taking someone else's solution and making it even better.)

Let students brainstorm and then let them vote on best tips or solutions. Voting can be accom-

plished using quiz or survey functions of your course management system as well as in a discussion forum.

Post point and vote tallies so everyone knows where they stand at the end of each round.

Have fun!

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However, once the initial foundation is laid, the benefits of online assessment can flow freely. To ensure that this flow continues, faculty will do well to pursue consistency.

Consistency

Consistency addresses the idea that students come to learn for the purpose of pursuing greater milestones in life. They do not come to learn about faculty preferences and quirks. Keeping this in mind, faculty need to look for ways to ensure consistency of instructional design between assessment strategies and within programs. This can apply to one's own course (i.e., the grading rubric for the concept paper is similar to or the same as the one for the final project). This includes consistency between courses as well. Are the discussion forum questions in psychology graded in the same way as discussion forum questions in sociology?

Consistency needs to be sought in terminology. Some courses will

have the same assignment discussed in the syllabus, in the course calendar, and in the online course management system. Are the assessment criteria laid out the same way in all three areas? Is the assignment referred to with the same phraseology? In the beginning it may be difficult for faculty to remember to adjust all three when a change is made. However, this type of discrepancy can cause undue stress to weary learners who simply want to submit their papers before the deadline.

Within the department, consistency should be sought as well. In one liberal arts college, the grading rubric for online discussions is exactly the same (with the exception of two to three words) in all the nursing classes. At another school, the education department has chosen to use one online testing package for all education courses. At one statewide community college system, grading rubrics are computer generated by an instructional design specialist. That group has also put policy in place that

maintains consistency in the look and operation of the online course management system.

Summary

Clarity and consistency lead to a well-developed assessment structure. These concepts help to remove barriers to effective and efficient assessment. Once these barriers come down, satisfaction and sanity is enhanced for all involved.

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Dr. Bristol is a nurse educator, consultant and technology specialist. He will present the April 23 Magna Online Seminar "Online Grading Tools: Six Steps to Efficiency and Quality." More information is available at www.magnapubs.com/calendar/303.html. @

In Teaching Online Never Overlook the Small Things

By Errol Craig Sull

When we teach online courses there are many basics that concern us: knowledge of our subjects, teaching strategies, engagement of students, school policies, deadlines, grading and returning of assignments, posting announcements, and responding to students—the list goes on. Yet in this plethora of major items that become the foundation of our course, there can also be not-so-major items that are also important but don't seem as crucial as the bulk of the course. However, when one of these is overlooked, it can become the ugliest wart on your class, resulting in negative student attitudes and a diminishing of your stature as instructor.

The following list contains these “small things” most often overlooked in online courses, and how to be sure they never haunt you.

Look over your course before it begins. Because a course is usually preset by the school, many online faculty assume the course is fine, that everything is set just the way it should be. But often this is not the case. Be sure to check for broken links, duplication of or missing assignments, typos; be sure that all course material required for students is visible to the students and that grading/points have been assigned to each project, homework, and test; that your biography (if required) and textbook information are in place; and that final exam dates (if applicable) and all related information are posted.

Check your spelling and grammar; proofread. Students will not appreciate emails, announcements, and other postings with spelling errors, typos, or punctuation/grammar errors. Sure, it takes a bit more time

to check for these—but it's your reputation and the school's reputation at stake. While no one is perfect, students expect their instructors to be—and all it takes is one typo from you for a student to feel that you are not prepared to teach.

Be sure that page numbers in assignments match the text(s).

Assigned pages to read in the course sometimes do not match the pages in the text(s) students have; this happens most often when an instructor is teaching a course again and again and forgets to check for a new edition of the text(s) being used, page numbers are entered incorrectly, or the text(s) you assigned does/do not match the one(s) ordered by the bookstore. Be sure all assigned readings are in sync with the text(s) used—your course will proceed much more smoothly if they are.

Check on students' names and email addresses. When students can late enroll, they may not be on your initial roster—it's important to pay special attention to your enrollment during the first two weeks of the course, as you want to be sure that all students are accounted for and included in your emails assignments, etc. And throughout your course the registrar will send you notices of students who are no longer in your course. Make a note of these so you don't inadvertently grade these students or send emails to them.

Make a checklist of all school policies applicable to your course.

It is so easy to overlook or forget one or two school policies or procedures, especially if you are new to the school. Until you are quite familiar with these, make a checklist so you won't overlook any. If you are

unsure of any policy, ask a supervisor: it's much better to know—and you will be respected for asking—than it is to guess ... especially if your guess is wrong.

Always be positive in your feedback and postings. You will be teaching many students, so you will be typing many thousands of words during one course; this can make it easy to overlook your tone or word choice now and then. But you can't: A negative tone, use of all caps (can be taken as YELLING), no positives—any of these in assignment feedback, emails, or other postings can be devastating to a student. So check all before you send, and always end each missive with an upbeat, optimistic tone.

Be substantive in your announcements, feedback, postings, etc. Students can't see you (except in rare webinars) or shake hands with you; all they have are your words, so it is crucial that they are, for the most part, many. The “Great paragraph, Tom!” or “Good point, Cathy!” or “Excellent idea, Jesus!” postings are fine, but they should never be representative of your writings to students. Be substantive (and do so often, not occasionally) in these so they know that you are invested in the class, care about the class, and are interested in the class.

Don't contradict yourself. As the course goes on you will find a long trail of your emails, announcements, and other postings in class; in such a situation it can be easy to overlook something you said earlier in the class and write just the opposite or something not in sync with your original subject. Be careful that you

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Engage Online Learners with Technology: A Free Tool Kit

By Hong Wang, PhD

Technologies used for distance education are generally classified into two categories: 1) presentation technologies used to record, present, and display instructional information; and 2) telecommunications technologies used to connect instructors and distance learners.

To help online learners process information, providing only text is far from enough to make learning effective, efficient, and engaging. The dual coding theory (Paivio, 1986), the multiple intelligences theory (Gardner, 1983), and the symbol systems (Salomon, 1981) all show that it is essential to present instructional material in multiple formats to adapt to students' different learning styles and enhance their processing of the learning material. What I would like to share in this article are some technology tools that are very useful to effectively introduce and present online instructional information, and most of them are free.

Concept maps. A picture is worth a thousand words. Visualizing information is a common and easy way to make learning more fun, interesting, and engaging. To illustrate a concept or provide an advance organizer for a learning module, a concept mapping tool is very helpful. *Inspiration* is an award-winning visual thinking and learning tool that is popularly used in education. It offers a 30-day free trial that anyone can download at www.inspiration.com/Freetrial, and a single license costs about \$69. Another similar brainstorming tool is located at <http://bubbl.us>. It is free, and the only thing that you need to do is sign up for a free account. You can create mind maps online, embed your mind maps in a

blog or website, email and print them, or save them as images.

Podcasts. Audacity is free cross-platform software that can be used to record and edit sounds. It is simple and easy to use, and you can download it at <http://audacity.sourceforge.net/download>. Instructors can record a talk or a lecture with a microphone and edit the sound file. What I usually do for my online teaching is make a brief summary of each chapter and highlight the most important points in each learning unit and then add some background music to spice up the podcasts. Publish them in iTunes U or post them in Blackboard and students can download to their iPods or listen to them directly on the computer.

Voice over PowerPoint. PowerPoint is a nice way to present an outline of a lecture, but it is insufficient for online students to read an outline in the virtual environment. *Articulate Presenter* is a great tool to quickly create Flash-based presentations from PowerPoint. *Articulate Presenter* has won several awards, such as Best of 2007 Elearning Readers' Choice Awards, the Elearning Guild Research 2007 Platinum Award for Overall Satisfaction, Best of 2006 Elearning Readers' Choice Awards, and 2005 Innovative Technology Gold. Instructors can record narration over each slide of a PowerPoint presentation and publish it in the form of Web pages or a CD-ROM. The file is much smaller than the original file, and the only plug-in students need is Flash Player, which 95 percent of computers have these days. What I usually do for my online teaching is record my narration over the PowerPoint presentation for each learning module

and then post it in the Blackboard course management system. You can download a 30-day free trial at www.articulate.com/downloads/freetrial-step1.aspx.

Video clips. To gain students' attention, a video clip is an effective way to introduce a topic. *Animoto* is a tool with which you can create a professional music video in several minutes. All you need to do is sign up for an account at https://animoto.com/sign_up. After you upload a set of images and select the music you like, *Animoto* analyzes the uploaded images and functions, based on a secret artificial intelligence logic. If your videos are only 30 seconds long or if you sign up as an educator, it is totally free. If you prefer to create longer videos, you can pay \$3 per video or \$30 per year. If you do not have time to create anything on your own, *YouTube* is a great resource for you to find ready-made video clips for Web-based instruction. Some of my favorite educational videos are the "in plain English" set about Web 2.0 tools made by *Commoncraft*. Just type in the keyword(s) and you can find some interesting videos about a specific topic you are teaching. A good alternative to *YouTube* is *TeacherTube* (www.teachertube.com), which is another fine resource for educational video clips. If you are teaching skill-focused subjects such as Web design, *Jing* can be a good tool to use. It can record everything on the screen and create a video to show step-by-step demonstrations. *Jing* is a cross-platform tool that is great for creating online tutorials. You can download it free at www.jingproject.com.

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don't do this. It will only confuse the students, and they will view you as an unprepared, scattered instructor.

Have your course match the expectations of your supervisor and the school. Beyond the policies and procedures of the school your supervisor will give you an indication—either directly or indirectly—as to how he or she expects your class to be run. For example, one supervisor may be very big on inclusion of individual activities while another may place more emphasis on group activities; one may be especially focused on your use of language in any postings while another may be more concerned about the number of times you post. Follow these leads, even if they oppose the way you want to teach: this person is

your boss and usually has a pretty good reason for why you should do what he or she says. And even if you think the reason is not a good one ... the person is your boss!

Keep track of the errors and oversights you discover for future courses. We all make mistakes in each course we teach. But as long as we use these errors as lessons to improve ourselves, they are not for naught. Make a list of these errors and keep them handy so that when you next teach a course the same problems will not occur. Your class will run more smoothly, the students will have a more positive learning experience, and you'll feel more relaxed—what's not to like?

REMEMBER: A tiny pebble in a shoe looks so inconsequential until stepped on—then it becomes

the largest of boulders; better to remove the pebble first so the boulder never visits.

Please let me hear from you, including sending along suggestions and information for future columns. You can always reach me at errol-craigsull@aol.com. And remember: please forward me your computer tips and suggestions to make teaching in the online classroom more efficient and productive.

Errol Craig Sull has been teaching online courses for more than 14 years and has a national reputation in the subject, both writing and conducting workshops on it. He is currently putting the finishing touches on his next book—How to Become the Perfect Online Instructor. @

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Most students these days are proactive for technologies, and they tend to be more motivated with effective content presentations in the virtual environment. Are you going to bore your online students by posting only Word and PDF files or engage them by creating the

instructional material in a variety of media formats in your online teaching? It is your choice!

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- **Feedback**—Sometimes audio feedback is more effective than text. For example, Horton finds it easier and more effective to comment on students' photographs orally than with text. "I think [students] get a better understanding of what the critique is all about and the points I'm making about the photos they're presenting in class or submitting as an

assignment. Audio just gives it more personality, and I hear that from students. They really appreciate hearing my voice and hearing the critique as if we are talking about it over the phone," Horton says.

- **Oral assignments**—A Spanish instructor at Northwest College uses Gabcast to assess students' pronunciation. She has students record a dialogue, and she gives audio feedback on it.

Gabcast does not require the user to have a microphone. Recordings can be done by setting up an account and calling a toll-free number to do the recording (up to one hour).

To find out more about Gabcast, visit www.nuance.com/naturalspeaking/.

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