ONLINE CL@SSROOM

IDEAS FOR EFFECTIVE ONLINE INSTRUCTION

NOVEMBER 2011

Brain-Based Online Learning Design

By Rob Kelly

breena Tompkins, instruction Aspecialist at Surry Community College, has developed a brainbased online course design model based on a meta-analysis of more than 300 articles. In this study, she distilled the following elements of brain-based course design:

- Low-risk, nonthreatening learning environment
- Challenging, real-life, authentic assessments
- Rhythms, patterns, and cycles
- Appropriate chunking or grouping
- Learning as orchestration rather than lecture or facilitation
- Appropriate level of novelty
- Appropriately timed breaks and learning periods
- Purposeful assessments
- Learning that addresses visual, auditory, and kinesthetic learners
- Active processing with mental models
- The use of universal examples, analogies, and parallel processing

Tompkins offers the following succinct definition of brain-based: "instructional strategies designed

for compatibility with the brain's propensities for seeking, processing, and organizing information."

Tompkins' model uses the acronym IGNITE.

Intervals: Tompkins recommends using an interval of intense focus for approximately 15 to 20 minutes followed by a two- to threeminute break. "Physiologically, your neurons are keen and alert for no more than 20 consecutive minutes. At the end of those 20 minutes, your neurons have gone from fullfledged alert to total collapse, and it takes two to three minutes for those neurons to be completely recovered and back to the total alert state. If you break longer than three minutes, you've redirected your attention," Tompkins says.

Shifting from intense focus need not be a radical change. It can be as simple as posting to a discussion board.

Grouping: Present information in groups of three or five. "The brain can process no more than nine items in a sequence, and it actually does this much more efficiently with three or five. Odd numbers work better than even numbers. If you're going to give students a list of six things to do,

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TIPS FROM THE PROS

Balancing Life with Teaching Online

Simone C.O. Conceição and Rosemary M. Lehman, authors of Managing Online Instructor Workload: Strategies for Finding Balance and Success (Jossey-Bass, 2011), offer the following advice on online instructor workload:

As online instructors, we must look at our teaching from an open perspective, adapt our course design, modify our workload strategies to fit the virtual environment, and rethink the ways in which we can prioritize and manage workload. In our book, we suggest a "Rethinking Process for Prioritizing Time and Managing Workload." As part of the process, we suggest the following action steps:

- 1. Look at current teaching practices by identifying course tasks.
- 2. Use an instructional design framework to guide the design of a new course or revisit an existing one.
- 3. Determine the tasks for course design and delivery, and estimate the time these will require.
- 4. Consider alternative

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make it one, two, three, whitespace, four, five, six. The brain responds to whitespace because the brain processes things in groups. Students will be better able to focus as they look at this group of information. You're providing the same amount of content. It just makes it more learner-friendly," Tompkins says.

Novelty: When students are bored they tend to not pay attention to information that is present. Tompkins recommends injecting novelty to prevent boredom. "If there's no announcement to make, post a good joke for the day. If you've got a header picture, change it once a week. Insert pictures with each unit. Do something to get their attention. You want students to go in and say, 'What's new today?'"

Interconnectedness: Learning needs to be connected to students' reason for taking the course. Tompkins recommends making these connections by providing experiences and demonstrations and revisiting those experiences. Constant review is essential because people learn through two mechanisms: repetition and connecting to prior knowledge, Tompkins says.

Technology and time: Select the appropriate technology to suit the needs of your students. For example, podcasts may be effective for master's-level students, but they are not a good choice for teaching developmental-level students.

It's important to provide enough time for students to process what they've learned. "Don't put so much work in there that there's no time to process what you're asking them to learn. I think sometimes instructors fill their courses with all kinds of things that there's no way students will have time to do everything," Tompkins says.

Environment: Keep the affective aspects of the online learning environment in mind. Welcome student emails. Understand your learners' needs.

This model does not require sophisticated high-tech solutions. "It can all be done with a very simple course design," Tompkins says. "I recommend using visuals all you can because over 90 percent of us are visual learners."

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approaches and decide on strategies that provide balance between work and personal life.

We have put into practice the rethinking process and have been able to successfully maintain quality of life. Our work and personal life are in constant motion. We believe that maintaining quality of life is essential. Personal satisfaction. control over the environment. and the ability to function in the everyday tasks of living are all characteristics of a good quality of life. Teaching online should not interfere with one's ability to maintain a normal and balanced life.

DNLINE LEARNING COMMUNITIES Developing Learning Communities with Faculty and Students

By Barton K. Pursel, PhD and Crystal Ramsay, PhD

In a recent faculty-development program focusing on online learning, the number one request from participants was "How do I create a sense of community in my online course?" Online tools and technologies can help us create a sense of community to enhance teaching and learning at our institution. The following are benefits of such an undertaking:

- 1. Keeping our audiences in contact with us, and with each other, will have long-lasting benefits for teaching and learning.
- 2. By using online tools to foster and establish communities among faculty, we can model behaviors in terms of best practices for establishing these communities within a course setting.

In traditional faculty-development events, faculty participate in one-off workshops or a series of workshops and seminars. Online technologies now have the ability to take these "one-off" faculty-development events, and turn them into a continuous, community-building experience that continues to support faculty over a much longer time.

One example is the use of online discussion boards to support Online Learning 4000 (OL 4000), a course designed to assist faculty in developing their own online courses. Faculty used discussion forums for basic introductions but also used them to post things like lesson plans, syllabi, and outlines for feedback from both the facilitators and colleagues. Participants unanimously requested the online course section remain open, so they could continue to download resources and interact with one another via the forums.

A second example is the incorporation of a course blog in a multisession, blended or face-to-face Course in College Teaching (CCT). Over eight weeks, faculty participants used a course blog to access online resources, discuss issues, continue discussions that began during a regular session, and respond to prompts presented as part of the blended course session plans. Participants found the blog to be a place to share ideas, vent frustrations about teaching and learning, raise questions, and interact with one another. Multiple participants in the blended course requested that the blog remain available so they could revisit it and continue discussions. In the face-toface section of the course, blog interaction was encouraged but not required. Still, of the 25 active participants, 20 different commenters and authors posted 35 entries and 75 comments to the course blog.

An important aspect of building an online community is that the facilitators need to model the behaviors necessary to establish, and then expand, the community. In both of the examples above, the facilitators spent significant time creating blog entries, starting discussions and leaving comments and messages on the participants' contributions. The facilitators encouraged participants to contribute in the form of responses to facilitatorcreated questions and post new ideas on their own and interact with one another. By putting forth a dedicated effort early in the course to use the two mediums regularly, interacting with most of the participants online, the facilitators created a foundation for the online community that participants then began to build upon.

We are exploring the idea of workshop or seminar "alumni." —

after a faculty member or graduate student participates in any event, they have an all-access pass to continue to interact with their own cohort and cohorts that came before them and those that will come after them. With the CCT, the blog can remain intact from semester to semester, and participants continue to have the ability to post and comment in this space even after completing the CCT experience. This can create a larger network of faculty that want to engage in teaching and learning topics, and also expand the online community. We are opting to keep OL 4000 open, allowing past participants to continue to engage in dialog and stay in contact with one another, as well as interact and share ideas with new members of the course in upcoming offerings.

This method of faculty development can take many isolated instructional events and turn them into long-standing development opportunities to greatly increase engagement around teaching and learning. Creating online communities is difficult, but by modeling behavior early we can provide the foundation for faculty to build upon, creating an environment where they can stay engaged with one another and with us. Finally, we are illustrating some of the behaviors necessary to foster an online community that a model faculty can then take to their courses and reuse to foster and create studentcentered communities around course content.

Barton K. Pursel is an undergraduate education and instructional researcher and Crystal Ramsay is an instructional consultant both at The Schreyer Institute for Teaching Excellence at The Pennsylvania State University.

ONLINE TEACHING FUNDAMENTALS

Getting Your PowerPoint Presentations to Your Online Students, Part 2

By Patti Shank, PhD, CPT

Twe been discussing how to pump up your online PowerPoint content for a while now because so many online instructors use PowerPoint. I'm completing the series by discussing ways to deliver PowerPoint to your students. Last month I talked about delivering live presentations to students at a distance, and this month I'll complete the series by discussing ways to get PowerPoint to your students so they can view them in a self-paced, or asynchronous, manner.

Self-paced/asynchronous options for delivery

You can record narration inside PowerPoint and then save it with the usual .pptx extension and distribute it to your students as a typical PowerPoint file. The problem with delivering your PowerPoint files to learners in this way is that your files are likely to have very, very large file sizes because of the audio (and any other media you include) and these large file sizes are likely to cause very long download times. Your IT department and students are likely to be unhappy about this. In addition, if your students don't have compatible PowerPoint versions or if they don't have PowerPoint at all, there will be problems viewing the file (even though there are some decent work-arounds).

Some instructors have tried saving PowerPoint files as a Web page (yes, you can do that) but this creates files that are hard to manage and the audio and other media often doesn't work or work as expected so this isn't a good option. The best option is to convert your PowerPoint file to Flash or MP4. I'll explain different ways to do this.

Converting your narrated PowerPoint files to the Adobe Flash format is one of the most common ways to deliver your files in a format that makes them smaller and easier to stream, and they run more smoothly than in the native PowerPoint format when run over the Internet at a distance.

Here's some good news. You do not need to own or learn how to use the Adobe Flash application to convert from PowerPoint to Flash. There are a number of simple ways to get your PowerPoint content from PowerPoint format into Flash format. Most desktop computers have the Flash player, so your students typically won't have a problem viewing your files. Some tablet computers also have the Flash player but iPads do not; if your students will be using tablets to watch your online Flash-based PowerPoints, you may prefer to use the MP4 option. Here are some of the more common options for converting your narrated PowerPoint files.

1. Convert from PowerPoint to Flash using a filesharing site

You can convert your narrated PowerPoint files to Flash by uploading them to presentation-sharing websites such as slideshare.com, slideboom.com, authorstream.com, or mybrainshark.com. When you upload your slides, the presentation sharing websites do the conversion to Flash. Then you can share the link to the presentation with your students or get the embed code and embed the presentation into a Web page. The downside of this method is that you do not have the actual converted file. This method is generally free.

2. Convert from PowerPoint to Flash using a limited converter

Converter tools generally have limited capabilities and just convert to Flash. The benefit of this method over the slide-sharing sites is that you have the actual converted file. One conversion tool recommended by a colleague is PowerFlashPoint (digitalofficepro.com/powerpoint/Power-flash-point-converter.html; \$99). This particular conversion tool will convert your slides, including animation and narration. Be careful about free PowerPoint-to-Flash converters, which may not convert animations and narrations.

3. Convert from PowerPoint to Flash using authoring software

There are numerous e-learning authoring tools that you can use to convert your narrated PowerPoint slides to Flash. These tools vary in price from \$99 to over \$1,000. But they also vary in features dramatically. Here are some of the more popular tools at the lower end of the price range:

- Snap! (rapid-e-learning.trivantis.com; \$99) (See Figure 1.)
- Impatica (impatica.com; \$199)
- iSpringPro
 - (www.ispringsolutions.com/products/ispring_ pro.html; \$249)

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Figure 1. Snap! tab in PowerPoint 2010 [View at: http://youtu.be/LbYCs46ZD2k]

• Adobe Presenter

(www.adobe.com/products/presenter; \$500) (Check for educational pricing on these tools.)

Compare the features of these tools to the limited converters and you may be surprised at what you can get. For example, Snap is extremely full-featured for \$99. Authoring tools tend to provide quiz authoring and other features that can be quite valuable when teaching online, so they can be a much better deal for creating PowerPoint-based instructional materials than Flash converters.

4. Convert to MP4

Producing a video of your narrated PowerPoint slides sounds complex, but there's an extremely easy way to do this for free. Screenr (*www.screenr.com*; *free*) is a Web application that makes it easy to create screencasts (recordings of your screen) without needing to install anything. When using Screenr, you place a frame around the portion of your screen that you want to record and everything inside that frame gets recorded (up to five minutes). You can create a five-minute, narrated PowerPoint presentation, put it in quarter Slide Show mode (hold down the

Ctrl button and click on the slide show icon) and then use Screenr to frame and record it.



After you create your videos, you can leave them on the Screenr site and link to them (like with the presentation sharing websites I discussed above) or you can download them so you have the actual MP4 video files and can do with them as you please (including putting them on a course page).

Last but not least, don't forget to test your file before going live!

Before sending your program out into the world (to your students), it's critical to make sure it works as expected. Make sure that you watch it all the way through and that all aspects of the program work: narration, animations, buttons, links, test questions ... everything. Test it in different browsers. If it is going to play through a course-management system, test it there as well.

Patti Shank, PhD, CPT, is a widely recognized information and instructional designer, writer, and author who helps others build valuable information and instruction. She can be reached through her website www.learningpeaks.com and on Twitter @pattishank. @

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helpful suggestions about improvements to the virtual technology, course policies, as well as proposals regarding how the instructor can be more beneficial to them during the course. Moreover, mid-term evaluations allow online instructors the opportunity to identify novel and more effective pedagogical approaches during the educational experience.

Conclusion

Regular analysis of qualitative data derived from student-instructor e-mail correspondences and employing the strategies outlined in this article will lead to the maintenance of positive academic outcomes for students and serve as the driving force for online course improvements.

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TEACHING ONLINE WITH ERROL

Successfully Overcoming the Major Challenges of Online Discussion

By Errol Craig Sull

Discussion threads are often viewed as the heart of online courses, and for good reason: the students can interact with one another 24/7, sharing, debating, and offering ideas, insights, suggestions, and information that stimulate the learning process. Yet challenges do happen in discussion, and these can be formidable. Left alone, they can quickly limit the effectiveness of any discussion and create problems throughout the online course.

Certainly, this does not need to happen. There are approaches tried by many online instructors that have been completely successful in keeping the discussion upbeat, exciting, interesting, active, and productive. If you are having problems in your discussion, there's a good chance one or more of the following suggestions will help:

Conflict in the discussion: It

would be wonderful if the discussion went as planned with each student jumping in with substantive and polite comments, but that is not the real world of the online course. With such a diversity of students and with the anonymity of the online environment (although students can see one another's names, the lack of a physical presence often gives a faux image of students being "invisible" to one another), conflicts of ideas, beliefs, insights, and suggestions can arise. Left unchecked, these can throw a discussion off track and negatively impact the course.

Solution: Each conflict presents teachable moments where we can

teach the importance of debate, healthy discussion, keeping emotions in check, the value of opposing views, and how this type of conflict can be valuable by introducing ideas and approaches that others had not previously considered. The use of a general email/announcement to the class, and an active presence in the discussion can turn conflict into something positive. (If one or more students persist, do contact them individually, spending more time discussing a positive approach to conflict.)

Personal attacks and bullying:

These can be an escalation of conflict, the result of students' beliefs (religious, philosophical, etc.), or a personality trait. Left alone, these students can discourage other students' participation in discussion and could contribute to students dropping the course. It also creates a bad "vibe" in discussion.

Solution: Active intervention is important, beginning with a general posting in the discussion thread (never single students out, of course, except for positive comments). If this does not help, then the students need to be contacted individually, first via email, then with a phone call if the email is not successful. (Note: Most schools have policies in place for such situations; it is important to check with one's supervisor to be certain of any school policy for situations like these.)

Students who do not contribute to discussion threads: Some students may feel shy about opening up in discussion. Others may be somewhat intimidated by what they view as student postings better than their own. This can result in limited discussion and discussion where minimally involved students are ignored. Again, this can lead to students becoming inactive in class or dropping the course.

Solution: For students who post minimally, be sure to pick a few of their postings as positive examples of good postings. (Always include others students: this not only balances the mix, that is, no one is singled out, but it also lets the shy student know his/her postings are as good as those of others in the class). For the absent student, individual emails and/or calls are the ticket, as much can be accomplished when the student feels you really do care—and you can also learn of any underlying problems the student may have. (To be sure. there are students who may not participate due to bullying or personal attacks—these can also be reached, but it must be through a combination of these suggestions and refocusing the bullies or personal attacks, as described above.)

Students plagiarizing other students' postings: If left unchecked, the guilty students will

tonchecked, the guilty students will continue, with more arrogance toward getting a good grade with minimal work—no good to the student for learning the course material. For those students whose work is plagiarized or who are aware of this, it can make for a very

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dispirited class, especially if they feel the instructor does not care. Finally, doing nothing sends the message that cheating is okay in life.

Solution: Immediately contact the offending student(s)—privately while abiding by your school's policy on this. This is a great opportunity for a teachable moment. Remember that students might not be aware that they are plagiarizing. Posting good materials about plagiarism at the beginning of the course with real-life examples of how plagiarism can be harmful can help to minimize any type of plagiarism in the class.

Going off track from the discussion topic: Discussion topics are set for a reason: to fortify the course learning of the primary subject. If students are allowed to digress into other areas, the purpose of a discussion topic and its learning impact will be lost.

Solution: Monitor discussion on a constant basis and when the topic goes awry, give a gentle nudge to get it back on track. You can mention the students' zeal and excitement for being involved in discussion, but always remind all of the need to really master the topic and that each post on a discussion thread topic takes the course deeper and wider, making for a richer learning experience. And it is important to toss in your posts on the subject that immediately get discussion going in the right direction.

Knowing how many posts the instructor should make: This can be very individualized, for some classes have great posting interaction with minimal instructor visibility, while others require extensive instructor postings. Too little and the risk of disconnect from the students is possible, but too much and the students might be intimidated into not posting.

Solution: First, be sure to check on any percentage policy your school has (e.g., you must post on x days and/or, as an example, 30 percent total of student postings). Ultimately, you simply need to get a feel for that balance, making for a nice mix of instructor and students. This comes with time, but if you look at your discussion involvement as if it were driving a car, it will help. Sometimes you'll need to apply more speed; other times you'll need to slow down to reach your destination as intended.

Moving along a stalled or lethargic discussion thread:

Students can run out of gas—they may feel there is nothing more that can be said about a subject, and thus the posts become thinner and less frequent. This can make for boring discussions—and can keep students away.

Solution: Introduce tweaks and new directions of the topic. Ask questions to stimulate student involvement. Ask students for input based on their lives outside class. Post cartoons and other information that adds a lighter side to the discussion thread. Ask students for suggestions about related thread topics. Introduce new thread topics (if allowed) that touch on the original topic but with a fully different approach.

Students offering very weak, nonsubstantive posts: Writing "I agree" or "That's cool!" or "Nice post" offers little. If students see others doing this on a regular basis, they may take a minimalist approach as well. The more posts like this, the thinner the impact of discussion, and some students will stay away believing not much can be learned from the discussion.

Solution: Post examples of substantive posts. Have students look at their postings as if they were receiving the information and ask: What value does this post hold? Pick up on some weak discussion postings, and show students how they can be nicely expanded into solid, meaningful posts. This will result in a balanced number of student posts and content—the perfect mix for any discussion.

REMEMBER: Left unchecked, gardens can quickly be overrun by forces great and small, and the beauty anticipated will be minimal; yet constant involvement by the gardener can result in full blossoms that offer much joy and satisfaction.

Please let me hear from you, including sending along suggestions and information for future columns. You can always reach me at errolcraigsull@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 15 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. @

ONLINE COURSE ASSESSMENT

Using E-mail to Enhance Assessment in Online Courses

By Lawrence O. Flowers, Ph.D., James L. Moore III, Ph.D., and Lamont A. Flowers, Ph.D.

The continued expansion of online distance education in the United States has produced many successful instructional models and content presentation strategies (Gradel & Edson, 2011). Despite the development of online teaching strategies, online course evaluation techniques have not been fully explored. Thus, the purpose of this article is to highlight the use of email and web-based qualitative analysis software to conduct meaningful formative and summative evaluations in online courses.

Course assessment

The determination of quality online teaching and learning experiences typically involves the use of comprehensive course evaluation instruments. Assessment of student engagement. learner satisfaction with technology, and student learning in the online classroom is paramount. Typical accountability and evaluation measures for webbased courses include formative and summative electronic surveys designed to assess various parameters about a given course to improve student success rates. Additionally, student retention rates and grades have historically served as measures to determine the quality of academic experiences. These standard evaluation strategies produce critical information that can lead to course and institutional changes. However, given the immense importance of successful course evaluations to sustaining quality online programs, the inclusion of techniques to produce and utilize beneficial course evaluation data is vital (Mitchell, 2010).

Formative assessments are evaluation activities performed during the course and are utilized to provide immediate feedback on student competency. Formative assessments help to determine the extent to which instructional methods enhance student learning. Formative evaluations may include discussion board activities and synchronous inquiry-based pedagogical approaches. Summative assessments are typically conducted at the end of a course to determine if online learners have met course and institutional objectives. Summative assessments include final examinations or cumulative research projects.

Techniques to improve online course assessment

Electronic mail (e-mail) is the primary and indispensable mode of communication between students and online instructors. Students typically send e-mails to instructors to request specific information, inquire about course procedures and assignments, and to express concerns about technology. Maximizing the efficient use of email content to verify adherence to program and course objectives offers significant advantages to online instructors and administrators.

Another dynamic approach to assessment of student online learning involves the use phenomenological research methods and qualitative analysis software to formulate a comprehensible picture of student perceptions and student needs. In this context, qualitative research methods are used to assess student performance by collecting and analyzing student

e-mail correspondences during the online course. For example, the analysis of student e-mails may reveal a problem with specific aspects of the online course. Following the e-mail-based analysis using qualitative analysis software and the emergence of identifiable themes, online instructors can use the qualitative data to design instructional strategies to improve academic outcomes during the current semester. Moreover. instructors can use the data to evaluate the effectiveness of the course and accumulate information during the online course to evaluate current teaching strategies.

Monthly student progress reports submitted via e-mail would further increase student achievement in online courses. To be effective. monthly student progress reports must incorporate constructive feedback (e.g., quantitative and qualitative) regarding student progress and include instructormediated strategies for improvement. Designated synchronous virtual office hours to discuss the helpful information in the progress report would also be an immense benefit to students enrolled in online courses.

In addition to the previously described course evaluation strategy, online instructors should conduct mid-term evaluations in order to constantly improve the quality of online education and to elicit increased student involvement. Carefully designed mid-term evaluation questionnaires including closed-ended questions and openended questions will permit students the opportunity to offer

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