

Tips for (Re)Designing an Asynchronous Online Class

Karen Diaz and Brian Leaf, Ohio State University

At Ohio State University, a recent move from the quarter to the semester system prompted a revision of two asynchronous, for-credit online information literacy courses we have been teaching for over 10 years on our campus. Online instruction has matured over those years and has become a well-researched, increasingly popular, and evolving form of pedagogy.

Several studies within our own field have shown that teaching information literacy in a variety of online formats can be as effective as teaching face-to-face (Burkhardt, Kinnie, & Cournoyer, 2008; Clark & Chinburg, 2010; Salisbury & Ellis, 2003; Beile & Boote, 2004). In order to achieve this high level of effectiveness, what matters most for successful student outcomes is the course design. Here are some tips for achieving the best design of an online information literacy course.

Consider the Data (And Keep Doing So)

A number of national and regional studies on the information literacy skills of college students published in the past five years have provided data for what many of us have anecdotally known about student research behavior. Thus, we no longer need to rely on our gut instincts regarding what students need to know and can begin using the data to inform what we teach. For example, we know that:

- Students don't have trouble finding information; in fact, they are overwhelmed with too **much** information, just like we all are.
- Students rely on easy, simple solutions for finding information and that they don't often recalibrate their search strategies when they are unsuccessful in meeting their specific needs.
- Teaching students about "tools" produce short-term effects in learning and often leave students unable to transfer skills to new research problems.
- Students also have difficulty formulating interesting and researchable questions. They need help understanding the scholarly information landscape and gaining context for the pieces of information that are so easy to gather in the digital environment (Project Information Literacy).

Studies also show that many students don't exhibit a high level of skill in using the information that they do find. Students tend to be quick in their use of sources—writing from sentences and not from the whole source. At best, they paraphrase rather than synthesize or copy rather than summarize the information they use; at worse, they cherry-pick information and plagiarize (Howard, Rodrigue, & Serviss, 2010).

Students not only enter college with these challenges, but they often graduate and enter the workplace still relying on simple and familiar solutions for solving information problems (like using Google), even when these familiar strategies are not appropriate and despite great technical skills in other, non-search related areas (Head, 2012).

Backward Design Isn't Backward

With all of this data-driven evidence of student need, how can we address these issues? One effective approach is backward design. Introduced in the late 1990s by Wiggins and McTighe (2005), it is an iterative process to, in part, remedy coverage models that lack purpose. Students are not empty banks in which to cram information; there is a science behind learning. Rather than trying to stuff them with all the information surrounding a topic, we should consider what we hope the students will be able to do with that topic by the end of the course; ultimately, the instructor has to decide what constitutes sufficient evidence of a student's learning. Then we can try to determine the best way to get them there. Will students be able to identify differences between popular and scholarly materials just because they've read a description? Or should they actually engage with sources in some way?

An exercise within the backward design framework is the articulation of essential questions. These questions attempt to unpack and frame the deeper ideas and concepts behind learning objectives like using Boolean logic for search or authority for evaluating information. In our course, we have an essential question for each of our seven weekly modules (parenthesis indicate the broader core skills or knowledge). These not only help our own thinking and development, but also assist in communicating to students the significance of the core content:

Week 1: How complex is the online information environment? (Information Landscape, Part 1)

Week 2: What should every Internet user know? (Information Landscape, Part 2)

Week 3: What does it mean to search strategically? (Search, Part 1)

Week 4: Why can't you cite Wikipedia? (Evaluation, Part 1)

Week 5: What hidden resources are available to you? (Search, Part 2)

Week 6: How do scholars begin research? (Evaluation, Part 2)

Week 7: How do you navigate the information ecology? (Reflection)

When designing the activities in which students will participate to answer each essential question, Bloom's Taxonomy can be a helpful guide. Do your students need to start at a very basic level of understanding? Is it possible to scaffold help and activities to then lead them to higher-level engagement with the question? Answering these questions isn't always easy, but it is necessary.

Authentic & Engaging Experiences

Authentic assessments that require students to complete activities reflective of real life situations are another important component of backward design. To address this, we wanted to teach students better research habits in an environment that they are already well acquainted with and often use: Wikipedia. If this is a primary source of information (Head & Eisenberg, 2010), learning how it should and shouldn't be used as a research tool might be both instructional and compelling. And we decided to test this idea, and we adopted a two-part approach to engage students:

- 1) Conventional modes of learning such as readings, case studies, and quizzes that would be familiar and provide a linear structure for students;
- 2) An open-ended problem using Wikipedia that would allow students to be creative in how they come up with a solution and receive coaching through dialogue with the instructor.

Students engage with these two modes of instruction simultaneously. The conventional modes address the lower end of Bloom's and help scaffold a student's ability to engage with the open-ended, higher level activities. The level of involvement that an instructor takes in any problem-based learning depends on the amount of time he or she is able to commit.

Finally, the third leg of a successful course is student-to-student communication. Engagement in an online class is challenging as there is no opportunity for typical face-to-face social interaction. However, there are a variety of techniques for online interaction amongst students to promote social engagement including:

- Peer review of projects
- Recorded student presentations
- Controversial readings & online discussions
- Use of wikis, blogs, or other social platforms

Just make sure that the activities you choose align to your desired outcomes!

User Testing

Even if you have assignments that are engaging and designed to meet your objectives, it is easier for confusion to ensue in an online course than in a traditional face-to-face

class. Assignments and instructions that seem obvious to you, or even to your colleagues, may not be clear to your students. It is important to find opportunities to test assignments. We did this informally by emailing the assignment to colleagues in the library, colleagues outside of the library, and student workers. We asked them to complete the assignment, record how long it took them to complete it, and note any issues that arose. Use the results of tests to clarify instructions, develop scaffolding where needed, and scale up or scale back minimum expectations.

Assess for Enhancement

Course assessment helps determine student learning, but also is the key to improve the design of a course. A variety of tools can be employed for assessing an online course. Are students bored? Overwhelmed? Engaged? In a face-to-face classroom this might be obvious through body language and rapport. But since this information is not available in an online environment, a survey can reveal students' attitudes toward a course. Additionally, overall performance on course activities can help determine whether student outcomes are being reached. If they are not, more scaffolding or practice may be in order. Perhaps the concepts are not being taught clearly enough. It may require a bit of work to determine where teaching improvements are required for better student outcomes.

Another avenue may be Quality Matters. Quality Matters Review & Certification is a national program of faculty peer review of online and blended courses to ensure that they are meeting quality standards (Quality Matters Program, QM). Where face-to-face courses might be reviewed for quality by campus deans, peers or other officials, online courses can be reviewed by a certified QM reviewer. A rubric (Quality Matters Program, Rubric Standards) lists all the areas that are assessed and the rubric and program are clearly supported through research in online instruction.

Campus Resources

Taken together, all of these options may seem overwhelming. But course design does not have to be done in a vacuum—seek out and use the various forms of expertise available on your campus. It is quite likely there are a number of units to consider partnering with to enable your course design. Such collaborations provide greater awareness for your library and your course, especially on a larger campus. At OSU, we consulted personnel and attended workshops offered by our University Center for the Advancement of Teaching (UCAT, <http://ucat.osu.edu/>), Center for the Study and Teaching of Writing (CSTW, <http://cstw.osu.edu/writingcenter>), and the Digital Union (part of the Learning Technology support unit, <http://digitalunion.osu.edu/>). These types of organizations help ensure we never stop seeking the latest data to help us shape the best future directions of our course.

log rather than debates. This chapter has several team building exercise examples; they are a good idea if the team is not on a strict time limit or perhaps during an annual retreat, but could be construed as a time-waster for a very busy group, so use wisely. With or without team building exercise, conflict will inevitably occur and an effective facilitator can recognize the difference in productive conflict which helps define issues and bring about creative solutions, and unproductive conflict that centers on personal issues. When the latter form of conflict is present, the facilitator must not take sides, but exhibit empathy and take action to prevent a derailing of the meeting. Eller provides some useful notes on how to make sure conflict is productive (for example, to make sure alternative ideas are expressed) and does not keep building unchecked (for example, steps to help mediate disputes).

In the next two chapters, Eller addresses ways for the group to reach peak performance. One key function of a facilitator is to assess the energy level; low energy levels can cause group members to lose momentum and be bored. Although reason would suggest that very high energy levels would maximize decision making, too much energy can cause members to move too quickly through a problem. To increase energy, Eller suggests breaking a large group into small units to talk out a problem; alternatively, having members write responses can decrease energy. Brainstorming increases energy levels, but goals and time spent should be structured; criticism is discouraged until all ideas have been generated. Group members need a shared vision, which enables the group to see the final product, own the goal, and assess the outcome.

Eller wraps things up by addressing the more negative aspects that may happen during group work. He points out that a facilitator must practice self-care; facilitation can put a strain on an individual. A crucial task is to separate the emotions of the group from those of the facilitator. Avoid letting high negative or positive emotions deter from the task at hand. A tip Eller mentions involves the delivery of controversial information: instead of delivering strictly verbally, go visual. Present information on a screen with the facilitator off to the side or on a handout, in both cases the group members are given something other than the facilitator to focus negativity on.

Librarians have a plethora of opportunities to participate in and lead groups—campus-wide committees, professional library association committees, internal library work groups, etc. With creativity this text can be applied to meeting facilitation in a multitude of environments. Each group will have specific needs and require different strategies and skills. *Effective Group Facilitation in Education: How to Energize Meetings and Manage Difficult Groups* is a worthwhile read for all members of a group. An effective meeting creates a positive personal experience for the facilitator and a rewarding experience for everyone involved.

(Online Class...Continued from page 5)

References

- Beile, P. M., & Boote, D. N. (2004). Does the medium matter?: A comparison of a Web-based tutorial with face-to-face library instruction on education students' self-efficacy levels and learning outcomes. *Research Strategies*, 20(1/2), 57-68.
- Burkhardt, J. M., Kinnie, J., & Cournoyer, C. M. (2008). Information literacy successes compared: Online vs. face to face. *Journal Of Library Administration*, 48(3/4), 379-389.
- Clark, S., & Chinburg, S. (2010). Research performance in undergraduates receiving face to face versus online library instruction: A citation analysis. *Journal Of Library Administration*, 50(5/6), 530-542.
- Head, A.J., & Eisenberg, Michael B. (2010) How Today's College Students Use Wikipedia for Course-Related Research. *First Monday*, 15(3). Retrieved from <http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2830/2476>
- Head, A.J. (2012, October 16). Learning curve: How college graduates solve information problems once they join the workplace. Retrieved from http://projectinfolit.org/pdfs/PIL_fall2012_workplaceStudy_FullReport.pdf
- Howard, R. M., Rodrigue, T.K., & Serviss, T.C. (2010). Writing from sources, writing from sentences. *Writing and Pedagogy*, 2(2): 177-192. Retrieved from http://site.citationproject.net/?page_id=25
- McTighe, J. & Wiggins, Grant (2005). *Understanding by design* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Salisbury, F., & Ellis, J. (2003). Online and face-to-face: evaluating methods for teaching information literacy skills to undergraduate arts students. *Library Review*, 52(5), 209-217.
- Project Information Literacy. Retrieved from <http://projectinfolit.org>
- Quality Matters Program. QM. Retrieved from <http://www.qmprogram.org/>
- Quality Matters Program. Rubric Standards. Retrieved from http://www.qmprogram.org/files/QM_Standards_2011-2013.pdf