From Brick and Mortar to High Tech Learning

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# Abstract

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The evolution of the education landscape from face-to-face instruction to an online classroom has prompted educators to rethink strategies for effective teaching. Incorporating technology and successful online instruction requires new methods for course design. Faculty should not incorporate technology for the sake of technology. Faculty should seek the most appropriate technological tool which best supports each course learning objective. Effective strategies for teaching online courses include creating a caring environment, providing prompt, relevant, and continuous communication, and creating a sense of community by providing opportunities for students to interact with one another. Institutions must provide extensive training and technological support for faculty designing online courses. Incorporating multiple methods of technology while providing student support enhance the student’s learning experience.

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# From Brick and Mortar to High Tech Learning

# Introduction

Higher education has evolved from brick and mortar structures to high tech online environments. This new learning environment allows institutions of higher education to reach students anytime and anywhere. Learning is convenient and accessible. Online learning has made educational opportunities available regardless of geographic, time, or other constraints.

Online education has become a priority for colleges and universities across the country with 6.1 million students taking at least one online class during fall 2010 (Allen & Seaman, 2011). According to a study conducted by Allen and Seaman sponsored by The Sloan Consortium (2011), “the rate of growth in online enrollments is ten times that of the rate in all higher education” (p. 11). The study reports 65% of all chief academic officers believe “online learning is a critical part of their long-term strategy” (p. 4).

Faculty are often making the shift from the classroom to an online environment. Brown stated as reported in Fabry (2009), “shifting from traditional to online teaching requires a thoughtful consideration of how best to use a learner-centered approach in the delivery of online instruction to optimize instructor-learner interaction” (p. 254).

Faculty accustomed to teaching using a teacher-centered pedagogy must now adapt their courses to a learner-centered style. Unfortunately, many college faculty “have had little training in pedagogy for online instruction and might be less likely to participate in online teaching due to a perceived unsettled nature of pedagogy for distance learning efforts” (Crawford-Ferre & Wiest, 2012, p. 11). With this rapid transformation, educators must understand effective strategies for teaching and designing online courses.

The following paper is organized around literature which identified best practices for teaching and designing online courses. Ideas for specific applications which can be integrated into online courses follow the literature review.

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# Essential Questions

The paper seeks to address the following questions:

1. What are some effective strategies for teaching online courses?
2. What are the best practices and strategies for designing online courses?

# Literature Review

In the essay, “The Debate about Online Learning: Key Issues for Writing Teachers,” Patricia Webb Peterson explained:

The affective factors of face-to-face teaching are not easily (if at all) replicated in distance-learning courses and without considering what students need in order to learn, our adoption of distance-learning technologies will not serve our educational goals (as cited in Deacon, 2012, p. 9).

## Effective Teaching Strategies

The online teaching environment can be cold and impersonal. Many envision the online classroom with little interaction between the professor and other students. However, this is not the case when faculty utilize effective teaching strategies in the online classroom.

### Care

Deacon (2012) recommends creating a “context of care” within the online classroom. She explains a “context of care” creates “a robust environment for student learning; it facilitates better dialogue between students and teachers and allows teachers to draw out individual students and help them achieve their potential” (p. 6). Anticipating student anxiety and minimizing anxiety from technological concerns is a key component of creating a “context of care”. Deacon (2012) recommended the following strategies to prevent technological issues and to encourage contact:

* Develop a “FAQ about online classes” to provide answers to frequently asked questions.
* Create a discussion thread or “student lounge” forum to entertain student questions and discuss concerns.

Student anxiety can be reduced by the “careful organization and presentation of course material” (Deacon, 2012, p. 7). Deacon advises the structure of the course should be consistent and predictable. To prevent overload, she recommends posting one unit at a time. Lawton et al. (2012) advise course designers to “present words as audio narration rather than onscreen text” (p. 252) to reduce cognitive load.

#### Integration

A “context of care” can be created with a *Start Here* menu designed to guide students through the beginning of the course. Faculty may integrate a student lounge or water cooler discussion area allowing students to communicate with one another in a relaxed format. Incorporating a Frequently Asked Questions area within the course allows faculty to address many questions and concerns.

### Communication

Instructors should provide continuous communication which is proactive, diligent, and fulfills commitments made to students (Fisher and Wickersham, 2009). Fisher and Wickersham (2009) emphasize feedback must be “prompt, relevant, and continuous” (p. 282). In a study conducted by Heischmidt and Damoiseau (2012) instructors should be easily accessible, the course website should be available any time of the day or week, and feedback should be 1) timely on assignments and tests, 2) comprehensive, 3) timely on grading assignments and recording grades in the online grade book.

Integration

Rubrics are a valuable tool for providing feedback. Rubrics should be provided

### Interaction

Faculty have the ability to minimize student anxiety and maximum opportunities for learning by addressing the affective and social components in online courses (Deacon, 2012). An important component is to create a sense of community. Potvin (2012) insists community development “must be designed for and intentionally built” (p. 1) into the course design.

Deacon (2012) emphasizes building a sense of community through online discussion. Listening is the key component and instructors should set the tone for the discussion. Deacon (2012) suggests instructors “shape discussion threads and topics around students’ concerns, backgrounds, and experiences” (p. 8). Allowing students the freedom to shape discussion around their own concerns and interests will increase participation and their interest in the topic.

Instructors may share their own perspectives; however, the perspectives must be connected to those of students. A student should not misinterpret the instructor’s thoughts as the best or the correct position on a subject.

## Course Design

“Successful online instruction requires new methods of course design” (Crawford-Ferre & Wiest, 2012, p. 12). Studies on effective online course design are abundant. Despite the research, and the increasing number of online courses, Fabry (2009) found “many are not instructionally sound” (p. 255). Many educators believe online courses can be developed using the same design principles as traditional classroom courses. Others believe unique design principles must be created to respond to the technological requirements of online courses.

According to Wiggins and McTighe’s *Understanding by Design,* course designconsists of three basic steps (Lawton et al. (2012). Course developers should create *Big Ideas* with units of instruction centered around basic concepts. Assessments should be developed to gauge the level of understanding of each idea. The final step is the creation of learning activities and presentations.

Dayton and Vaughn (2007) believe effective course design a) creates a learning community; b) presents appropriate challenges; and c) fosters individualized motivation and growth. These themes were adapted from Chickering and Gamson’s “Seven Principles for Good Practice in Undergraduate Education”. These principles which promote effective course design:

1. Contact between students and faculty.
2. Develops reciprocity and cooperation among students.
3. Uses active learning techniques.
4. Emphasizes time on task.
5. Communicates high expectations.
6. Gives prompt feedback.
7. Respects diverse talents and ways of learning.

There are several existing models and frameworks for the development of effective online course design. In addition to Chickering and Gamson’s Seven Principles, Oliver and Herrington identified features of learning tasks, learning supports, and learning resources for the design and development of effective online courses (Ireland, Correia, & Griffin, 2009). Garrison and Anderson emphasized the importance of cognitive presence, social presence, and teacher presence within the course design (2009).

### Technology

Many institutions of higher education utilize packaged course management systems (CMS) including BlackBoard, Moodle, ANGEL, and Desire to Learn (D2L). Technology should be adopted which is compatible with varied student needs (Crawford-Ferre & Wiest, 2012). To implement a successful online program, institutions must be willing to invest in technical support and equipment (Fish & Wickersham, 2009).

Faculty often lack knowledge and have little training on the functionality of course management systems. Faculty need trained on the functions of the system and technical support should be made available (Crawford-Ferre & Wiest, 2012). Fish and Wickersham (2009) advise institutions to “provide ongoing faculty training and support through professional development opportunities that expose instructors to current technologies and related software” (p. 280). Systems offer a variety of options although Deacon (2012) advises “instructors should only use features that truly enhance the learning environment or fit with their own personal comfort level” (p. 6). According to Fabry (2009), “online courses suffer due to an ill-informed selection of features that are not aligned to course learning objectives” (p. 254). There should be collaboration between faculty and web design teams (Fish & Wickersham, 2009).

Instructors must understand technological requirements required for each feature within the course management system. If audiovisual-rich media is embedded within the course, instructors should include the minimum communication speed and video plug-in needed within the course syllabus (Deacon, 2012).

To enhance online course development skills, Fish and Wickersham (2009) recommend faculty attend online education workshops, conduct literature reviews on effective online education practices, and consult and network with other online faculty. Faculty may collaborate with colleagues to see how technology has been used to enhance a specific topic.

Fish and Wickersham (2009) emphasize “comprehensive student online training is necessary in order to reduce student frustration levels and to ensure that online technology does not interfere with learning” (p. 281). Schrumm et al. (2005) (as cited in Crawford-Ferre and Wiest, 2012) suggest institutions of higher education should provide an online orientation to familiarize students with the course management system. The orientation should provide training on how to post in a discussion, send email, chat, submit assignments, attach files, and how to work with PDF and document files.

Technical support should be available to support students. Within the course management system, Crawford-Ferre and Wiest (2012) suggest a frequently asked questions section and a page of helpful resources.

Online course delivery allows students from across the world to enroll in courses. Whether living within the United States or in their home country, international students face challenges with online instruction. Time-zone differences with synchronous discussions and the lack of visual cues in asynchronous discussions presented difficulties for these students. As a result of cultural differences, some international students felt uncomfortable and unwilling to respond to posts when they disagreed with their instructor or fellow students (Crawford-Ferre and Wiest, 2012). Crawford-Ferre and Wiest (2012) recommend “providing more context and assignments, more specific information about expectations, and greater use of audio/visual aids (p. 13).

### Development

Beyond the course management system, infusing technology into a course may incorporate a variety of tools. Crawford-Ferre and Wiest (2012) recommend utilizing “multiple methods of content exploration and transmission” (p. 12) in the design of online courses including “synchronous and asynchronous learning activities, compressed videos, presentation slides, video lectures, website viewing, and multiple communication methods, such as e-mail, chat rooms, and webcam conversations” (p. 12). Peterson and Slotta (2009) recommend incorporating peer review, brainstorming, wiki authoring, reflection, and critiquing activities to increase student participation and interaction to build a sense of community. According to a study conducted by Ward, Peters, and Shelley, “students reported perceiving classes with synchronous communication as having higher instructional quality than those with only asynchronous communication methods” (Crawford-Ferre & Wiest, 2012, p. 12).

Incorporating technology into an online class can be time consuming. However, there are many advantages. Technology has the ability to reduce administrative tasks such as record keeping and checking for plagiarism while fostering creative, innovative, and meaningful assignments (UCLA, 2011).

# Conclusion

Fish and Wickersham (2009) emphasize “effective online course delivery requires more than simply repackaging existing traditional course content” (p. 279). Many faculty are reluctant to begin teaching online. Often, traditional course content is placed into a course management system without consideration of how the materials should be adapted to the online instructional environment.

Faculty should be careful not to integrate technology for the sake of technology. “Technology cannot ‘save’ a badly developed curriculum or ‘rescue’ a poor teacher; indeed, it may exacerbate an already poor situation” (UCLA, 2011). Instructors should incorporate the technology which will best support the course learning objectives.

Online learning requires faculty to think differently. Faculty must learn new technological skills to design and develop quality courses. As this paper identified, there are successful approaches to online teaching which will enhance learning while providing students a positive experience with technology and online education.

The effective strategies for teaching an online course discussed in this paper include care, communication, and interaction. Faculty should create a “context of care” in the online classroom to minimize anxiety and address questions and concerns. Communication is an integral component. Instructors should be easily accessible and proactive and diligent in their communication. To address the affective and social components, integrating opportunities for interaction with classmates will create a sense of community.

As mentioned, there are best practices when designing online courses. There must be ongoing training and support on the chosen course management system for faculty and students. Faculty must work closely with the web design team to become familiar with the various tools available. The key is selecting the best tool or tools to meet the course learning objectives.

As the education landscape has evolved from a brick and mortar structure to a high tech online environment, faculty must make the shift from traditional classroom teaching practices to an online classroom incorporating a variety of technological components. This exciting new classroom provides endless opportunities for growth and innovation.

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