

Quality in Online Education

Quality in Online Education: How can we define it, measure it, insure it?

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Online learning is clearly one of the biggest trends in higher education, and a growing trend in secondary education as well. Thousands of articles and hundreds of books have been written, and countless conference presentations have been given on the subject, ranging from narratives of personal experience to small comparative studies to how-to manuals to theoretical explorations. There have also been plenty of attacks (Noble, 1997-2001; Trend, 2001). Of course, this mass of academic production varies tremendously in its quality and value, but the truth is that there are a lot more people doing online education than are doing it well, and while there does seem to be a general consensus among commentators on what constitutes good practice in the online classroom, very few of the courses I have seen actually follow this advice.

Some of this is due to the rush of many institutions to join the online learning boom, either out of an imagined impending goldmine or the need of keeping up with the Joneses. As Palloff and Pratt (1999) point out in their seminal text, *Building Learning Communities in Cyberspace*,

Computer-mediated courses and programs have been appearing so rapidly that little thought seems to have been given to the possible impact of the delivery method—either educationally or socially. Nor has much thought been given to the need to modify the educational approach; traditional teaching methods are being attempted in a nontraditional environment. (p. 4)

O'Donnell (2001) adds to this sentiment when he calls the online course offerings of most universities the “unimaginative extension of traditional forms” and then continues: “Nobody has succeeded in building outlet malls for the mind—offering cheap and serviceable merchandise of sometimes dubious origin more or less protected by prestige name brands” (p. 16). It is also clear that research efforts regarding the quality of online teaching and learning need to continue and to improve. Duncan and Wallace (2002) are a very small part of the chorus pointing out that

“questions about the quality of many of the research studies continue to render many of the findings questionable.” Most of these shortcomings have to do with a lack of quantitative, longitudinal research on the effectiveness of online learning (Moore et al, 2001; Bork and Britton, 1998).

Therefore, we must look critically at what is being done in the online classroom, as well as at the ever-increasing amount of commentary and advice being generated regarding the online classroom, and we must find ways to acquaint the two in meaningful and wide-ranging ways.

Ultimately, however, we must strive to define what constitutes quality in an online course. I have always used the following definition, that a quality online course adheres to three basic principles:

- it addresses diverse learning styles
- it fosters interaction
- it employs multiple assessment strategies

I have also felt it is important to remember that while it is a good idea to keep your online classroom student-centered, it is also important to provide a considerable instructor presence. Yet these are mere abstractions, and vague ones at that. And while it is beyond the scope of this paper to fully define these concepts, we will attempt to start the process of understanding the concept of quality in online learning, first by examining a few of the many examples of scholarship on how to teach online and then by suggesting some possible avenues for future research.

Martin Weller, in *Delivering Learning on the Net: the why, what & how of online education* (2002), begins his book by arguing that the Net can be an effective educational tool, but only “when it is employed properly.” He defines “properly” as a four part process:

1. Do not implement it as a mass medium
2. Do not adopt it in isolation
3. Be prepared to experiment and change
4. Make the Net central to the course. (16-17)

The first item is the most interesting for our purposes. He states that administrators can't view it as a "cheap method of increasing their educator-to-student ratio." Nor can it be viewed as a new delivery method for a failed system, pointing out the failed distance learning method of broadcasting lectures over the airwaves. He wisely points out that it is "somewhat surprising" that so many people are replicating the same mistake in online courses. What is best about his discussion here, however, is an analogy he makes to television production:

Just as television programme [sic] makers soon discovered that good television drama was not achieved by pointing a camera at a stage play, so online educators need to find ways of using the new medium effectively. It is a two-way medium and this is what makes it ideal for use as an educational technology. This all means you cannot just put up course notes and disappear for a semester. (p. 16)

In discussing point three, he talks about what can be gained by making people reflect on their teaching, stating that if "the Net does nothing more, it will have been a valuable tool if it promotes a culture of self-reflection in educators and restores a sense of fun to education." (p. 17). His fourth point, however, is when he gets a little shaky. There is some merit in his thinking that if the Net is not central to the course, then students will relegate it to the "periphery" and leave it there, but his exclusivity argument rings hollow, especially when he states that committing entirely to web-based instruction is the only way that educators will come to terms with the technology.

Weller also argues that educators, first and foremost, should be knowledgeable in their fields of expertise, and since maintaining that expertise is difficult enough, the added responsibility of acquiring suitable pedagogical and technological expertise for teaching online "becomes an arduous, if not impossible, task for an educator" (p. 1). Nevertheless, he insists on instructor presence in classes, pointing out that the notion that "the Net represents an infinite lecture hall, with no additional costs for additional students, is a mistaken one" (p. 26). He goes on to add that an

educational experience that is meaningful, the provider of that experience needs to give “guidance and support.” He takes issue with writers, such as Noam (1995), who see the online medium as the next step in the evolution of university structure with its ability to mass-produce education, claiming that a “meaningful education experience” will require “a great deal of academic support, which many of the cheaper alternatives would not be able to supply.” Yet, Weller would also take issue with writers like Bérubé (1997), who decry online education because of a perceived lack of “personal, individual contact with students” (p. B4).

This attitude toward online education, regardless of whether it is seen as a good (ala Noam) or bad (ala Bérubé) thing is a troubling one. In this regard, it is worth noting that while a library is an important feature of a university, and while that library contains an appropriate amount of “knowledge” or information from which an enterprising student could appropriate a sufficient learning base equivalent to what could be learned in a classroom course, there is no one who would argue that the library threatens to render the rest of the university obsolete. In other words, the library is not *the* university. Instruction has as much to do with the provider and provision of instruction as it does with the actual content to be learned, and no quality instruction or learning can result from a lack of understanding of this principle.

An example of the typical level of research in the online learning literature comes from Weller’s response to David Noble’s *Digital Diploma Mills* (1997-2001), which is a series of famous attacks on online learning. He is taking Noble to task for claiming that the explosion of online learning has happened with “little regard for deliberation of the pedagogical and economic costs and at the risk of student and faculty alienation and opposition?” This is, of course, a claim made without any empirical support, and Weller answers it ably, also without such support. His response is, “On the contrary, my experience is that anyone who has developed an online course has spent far longer thinking about pedagogy and reflecting on the success of that course than many face to face

lectures” (p. 29). This has been my experience also, perhaps not for all of the faculty I’ve known, but for the vast majority, and it stands to reason that this would be the case. Indeed, Weller goes on to argue:

The way to ensure the quality of online education is for educators to become more involved with the process, not to refuse to engage with it. There is nothing intrinsic in online education that necessarily leads to a lowering of quality. Indeed, there is probably a great deal more scrutiny of online education than there is of traditional face to face teaching, with the result that there is a greater effort in maintaining its quality. The fear of being replaced by online resources is a misplaced one, I feel. If some video lectures and resources can replace educators, then in all probability the educators deserve to be replaced, since they are not adding much to the educational experience of their students. Most educators do far more than this and can continue to do so online. (p. 30)

Or, to put it another way, the web is not a delivery mechanism; rather, it is a two-way communication device, and online instructors and course designers should never lose sight of this.

The remainder of Weller’s book tackles an assortment of issues regarding online courses, primarily in a “how-to” mode, but one chapter, “Pedagogies for online teaching,” is worth discussing here. Since his book is intended to be an introduction to faculty, he doesn’t go into much detail, choosing instead to be as brief as possible. I like this strategy, but it would have been nice if he had provided suggested resources. The approaches he names are:

- Constructivism
- Resource based learning
- Collaborative learning
- Problem Based learning
- Narrative based teaching

- Situated learning

Of these, he states that constructivism and collaborative learning are the most commonly utilized strategies online, but he makes interesting cases for problem based and situated learning. It is true that constructivism and collaborative learning are the most recommended strategies, but it is not clear how widely and how well they are being used. Nevertheless, the online environment requires a more active learning environment, and these strategies work well for that. I often recommend to faculty that they provide enough information in lecture-like materials to get students in a position to individually or collaboratively fill in the blanks, usually through constructivist methods.

Collaborative learning is also important in that it alleviates some of the inherent alienation of the online environment. Another way to conceptualize the online classroom is to consider the seminar as standard (Plumb, 1999).

What I find most refreshing about Weller's comments in this section, however, is what he says about problem based and situated learning. These are akin to the case method famously used by the Harvard Business School. The basic tenet behind this method is to give the students a business problem that they then collaboratively solve, exposing them to "real-life situations that are relevant, intellectually and emotionally engaging, and highly interactive" (Harvard, 2002).

In Weller's discussion of the implementation of pedagogical strategies, he recommends the following steps:

1. Select an appropriate pedagogy
2. Combine approaches
3. Be prepared to take a different role
4. Utilize the strengths of the technology (77)

Of these recommendations, selecting a pedagogy is probably the most important, and is even more probably the most underused strategy online or in the classroom. And while it is important to have

a clear and consistent course pedagogy, it is also important to combine approaches for variation and freshness. Furthermore, all of these require instructors to rethink their role in the education process, which can only be a good thing.

Overall, Weller does a nice job of providing a comprehensive introduction to online education. It doesn't treat any topic very deeply, and it perhaps relies too much on his own experience—indeed, it seems to only use sources for the sake of using sources—but it is a quality work. It is well reasoned and argued, and I recommend it for anyone teaching in or administering an online program.

The second example we will look at is Alison Carr-Chellman's and Philip Duchastel's "The Ideal Online Course" (2000). The purpose of this article is to "explicate the ideal online course," and while it isn't especially well written and gets off on the wrong foot by essentially apologizing for their purpose by discussing how there is no one "ideal," they do offer some sound advice, even if most of it is unsupported by formal research, either their own or that of others, and what sources they do use are rather dated.

Carr-Chellman and Duchastel do make an interesting point when they state that we "need to ban the term 'delivery system' in any discussion of distance education or online instruction" (p. 230), effectively suggesting that the new paradigm of online learning should be seen as a two-way structure. It should also be seen as a new approach to teaching, not simply the reappropriation of old ways of teaching for a new medium.

It is not enough to simply transpose traditional courses to the new medium of the web in order to create an online institution. This will not take best advantage of the opportunities of the web. There are many unfortunate instances on the web where such transposition leads to a stilted use of this medium for instructional purposes. It needs to be recognized that online

education is a specific medium in its own right and thus, it will have its own design considerations for effective instruction. (p. 232)

They then give a nice, however brief, explanation on how to do this. Their elements of the ideal online course are:

1. The Study Guide

This is similar to the syllabus in a traditional course, but it must be more detailed. It is a guide to the materials in the course and should explain where everything is and how the student is to progress through the course and the course material. Something that they don't mention is that another important aspect of a course is clear policies. Online courses require more policies than traditional courses, and the procedures of the online classroom have to be clearly explained in ways that would be strange in a traditional course—e.g., to turn in your paper, pass it to the person in front of you, who will pass it to the person in front of her, who will pass it....

2. No Online Text

Carr-Chellman and Duchastel contend, perhaps correctly, that the computer screen is not an ideal interface for reading, so most textual content should be provided on paper. They also discourage the use of audio or video lectures, claiming there “may be an advantage for some mini-lectures online,” but only for “purposes of identification with the instructor and general orientation to the subject.” Their belief that due to the active nature of online learning, such materials should “remain minimal” because the purpose of such lectures is not to communicate content, but rather “to enhance the student's identification with the course, motivation to learn, and sense of instructor personality at a distance.”

3. Assignments

Carr-Chellman and Duchastel repeatedly stress that online learning should be an active

learning process, so they give a lot of emphasis to assignments, advocating a move to “a mode of learning that is less dependent on the acquisition of information or content coverage via lectures, and more dependent on the application and use of such information in real world settings wherever possible.” They go on to add that these assignments should have “authenticity” and should require searching for information, either through the course materials or the internet. The “timely provision of feedback” is also important in regard to assignments.

#### 4. Examples Online

They recommend examples of prior students’ work be made available to demonstrate “not only of the level of effort required, but also of the standards of quality work that the instructor expects.” They also recommend the sharing of current students’ work so that students will have access to additional learning materials, as well as opportunities for collaborative learning.

#### 5. Course Communications

Carr-Chellman and Duchastel also discuss the standard communication tools and opportunities in an online course.

- a. Asynchronous Interchanges, e.g., threaded discussion boards.
- b. Synchronous Interchanges, e.g., audio conferencing, internet chats, and, potentially, via video conferencing
- c. Email Communication, e.g., instructor-student or student-student

Since these standard tools are easily the most discussed aspect of online learning, I will not discuss these here.

#### 6. Interactive Skill Building

Through the use of Java and other interactive technologies, the web can now perform many

of the tasks of traditional CBT, but they warn that we must keep in mind that such tasks are best suited for skill building, and therefore we should be careful in how we appropriate these technologies for intellectual development, preferring the use of “intellectual dialogue for all conceptual and advanced intellectual skills development.” They also state that they prefer the use of a constructivist approach.

One of the most important aspects of the article turns out to also be the most disappointing, but if nothing else, it does suggest some possible avenues for future research. In the section on practical debates, Carr-Chellman and Duchastel discuss pacing, “presential” [sic] instruction, assessment, and “technological look.” The only problem with this discussion is that they provide no answers at all, only that some people are one side of these issues, and others are on the other side. Assessment is arguably the most important of these issues, but it is also the most discussed and the most researchable, and while technological look is in some ways the least important, it is nevertheless an important issue. However, this is the area most difficult to research.

It seems to me that the issues of pacing (i.e., self-paced or “group-set pace”) and presential instruction (i.e., face-to-face) are the most neglected issues with the richest opportunities for research. They are issues on which everyone has an opinion, but no one has anything beyond their opinion. Some empirical evidence on the comparative effectiveness of these approaches would be a very valuable area of inquiry in the search to define online quality and the effort to insure its implementation.

Another possible area of inquiry involves the constructivist approach normally touted in the literature on online learning, as well as by Carr-Chellman and Duchastel: the appropriateness of the online environment for certain kinds of courses. Conceptual disciplines like English, education, and political science lend themselves nicely to the constructivist method because their content is largely subjective. Indeed, when students are assessed objectively in these disciplines, there is inherently a

reductive element to the process. Other disciplines, like math, chemistry, nursing, or epidemiology would seem to lend themselves less elegantly to the constructivist online model, since there is an objective body of knowledge that must be learned to the letter. These disciplines are much more suited for objective assessment and even objective content presentation. What strikes me about this, however, is that this latter group of disciplines are taught on a lower level of learning (primarily through rote memorization), yet the practitioners of these disciplines are generally considered by the general public to be “smarter” than those of the more conceptual disciplines. This is especially interesting in that, as Jonassen (1995) states, “In most professions, people are paid to solve problems, not to memorize information.” This is also an issue that gets at the heart of how we assess online learning in terms of how it compares to the traditional classroom. As Weigel (2000) points out, there is a general problem in higher education, both in its assessment and practice that the “adventure of learning has been collapsed into what gets on the final exam” (p. 15).

And furthermore, as Ryan (2000) asks, “Can online classes be judged by the same quality standards as traditional lecture classes?” pointing out that there has been very little quality, meaningful research comparing online learning to traditional “lecture class quality.” However, the bulk of the research out there, as is famously presented in Russell’s *The No Significant Difference Phenomenon* (1999), does suggest that online learning achieves comparable student outcomes. What is most encouraging about this is that most of the published studies compare “veteran” classroom versions of a course with the first run of the online course. It seems inevitable, then, that as the understanding of online pedagogy, and by extension online teaching, improves, the possibilities for teaching and learning are indeed bright.

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