This article promotes a student-centered approach to teaching online courses.

A Theoretical Framework for the Online Classroom: A Defense and Delineation of a Student-Centered Pedagogy

Dave S. Knowlton

It is a daunting task to theoretically frame the pedagogy of the online classroom. Synthesizing varied new and largely untested practices (Draves, 1999) with equally varied educational theories could fill many volumes. Also, theoretical forays examining the online classroom often have a tendency to reflect the biases of specific authors, leading to myriad arguments about more than pedagogical theory; they become riddles with questions of epistemology and ontology. Although in a theoretical discussion not all such riddles can be avoided—and, in fact, some are even welcome—the goal of this article is to offer a theoretical framework for teaching online courses without discussing detailed questions about epistemological and ontological stances. Such a framework has three parts. First, I examine the differences between a professor-centered and student-centered classroom to establish the context for this article. Second, I present arguments supporting the notion that a student-centered approach is a necessity if the goal of the online classroom is student learning. Third, I offer a practical picture of the student-centered classroom when synthesized with the online environment.

Professor-Centered and Student-Centered Classrooms

The purpose of this section is not to offer a complete discourse on pedagogical theory and classroom control. Such arguments have been furnished many times in the seminal literature about teaching and learning (for
example, Bloom, 1984; Brooks & Brooks, 1993; Bruner, 1986; Freire, 1993; Vygotsky, 1978). In addition, such a discourse would necessitate an explanation of jargon-laden contrasting concepts and epistemologies—for example, positivist versus constructivist, behaviorist versus cognitivist—and a detailed excursion into specific discipline-based educational strategies, theories, and methodologies—for example, programmed instruction (Skinner, 1954), situated learning theory (Cobb & Bowers, 1999), and open learning (Fraser & Deane, 1997).

Instead, my purpose here is only to offer a contrasting view of two broadly defined paradigms—as opposed to championing specific schools of educational philosophy—as they would manifest themselves in the online classroom. I accomplish this goal by using Connelly and Clandinin’s (1988) model of the classroom situation as a heuristic for contrasting student-centered (often associated with constructivism and manifesting itself in the active involvement of students) and professor-centered (usually positivist in nature and most often manifesting itself through lecture) paradigms of teaching and learning. Specifically, Connelly and Clandinin subdivide classrooms into the categories of things, people, and processes. Exhibit 1.1 summarizes the contrasting paradigms. It is my contention that an online course must align itself with student-centered approaches to be educationally effective.

**Things.** Obviously, the notion of “things” in a classroom can vary widely. In a science course, lab tools and specimens are “things.” In a geography course, maps are “things.” Although it is impractical to address every item that might be a “thing” in a course, relevant here is the notion that things are sources that provide a new perspective on course material and thus better help students master the course content.

The purpose of things in a teacher-centered course is very different from the purpose of things in the student-centered classroom. In the teacher-centered classroom, professors introduce the specific things that are worthy of being studied, and students are told how to interpret them. That is, students must learn—memorize—a meaning as dictated by the things that professors introduce (Kauchak & Eggen, 1998).

In the student-centered classroom, however, students also are responsible for finding things that they can use to create knowledge and understanding. “Things” are tools to help students engage in a kind of meaning making that is active (Jonassen, Davidson, Collins, Campbell, & Haag, 1995).

I am not arguing that in the teacher-centered classroom a “thing” does not have an inherent meaning. Indeed, a map of a city does have a meaning and definition. I am arguing that in the student-centered classroom students are allowed to broaden the learning arsenal by introducing things that transcend teacher control of course material—and thus teacher control of what constitutes valid knowledge. The student-centered advocate would argue that when students use things to take more active control of their own learning, the knowledge that they discover is, in essence, created by the student. As a result, knowledge becomes more personally relevant to the student.
A THEORETICAL FRAMEWORK FOR THE ONLINE CLASSROOM

People. The tendency in the teacher-centered classroom is for both the professor and the student to play roles that are regimented and standardized. The professor is the “giver of knowledge”—the waiter or waitress who fills the empty glass. By virtue of academic credentials and professional experience, only the professor is endowed with knowledge worthy of dissemination (Axelrod, 1991). The students are the empty glasses waiting to be filled so that they can contain the knowledge that has been poured. In the teacher-centered classroom, which has evolved from the behaviorist traditions of education, the professor is a stimulus to which students respond (Kauchak & Eggen, 1998).

In the student-centered classroom, the professor is not the sole voice of intellectual authority, the only one who has been endowed with knowledge worthy of dissemination. The student also dispenses information by assuming the role of an active participant in the day-to-day rigors of developing an understanding of course materials. This does not imply that the professor is not a valuable participant in a student-centered classroom; rather, the professor’s role is recast. No longer is the professor an umpire, judge, and dictator; now the professor is a coach, counselor, and mentor. Rolfe and Alexander (1996) say that when planning for a student-centered environment, the student should be viewed as the quarterback and the educational professionals as linebackers. The pluralism that is inherent to a group of students (Speck, 1998) can make such an approach valuable (Jonassen, 1999).

Exhibit 1.1. A Contrast Between the Teacher-Centered and Student-Centered Classroom

<table>
<thead>
<tr>
<th>Pedagogical orientation</th>
<th>Teacher-Centered Classroom</th>
<th>Student-Centered Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Things”</td>
<td>Professor introduces “things” and suggests the implications of those things.</td>
<td>Both professor and students introduce “things,” and both offer interpretations and implications.</td>
</tr>
<tr>
<td>People</td>
<td>Roles of professor and student are regimented: The professor disseminates knowledge, and the student reflects that information.</td>
<td>Roles of professor and student are dynamic: The professor and students are a community of learners. The professor serves as coach and mentor; the students become active participants in learning.</td>
</tr>
<tr>
<td>Processes</td>
<td>Professor lectures while students take notes.</td>
<td>Professor serves as facilitator while students collaborate with each other and the professor to develop personal understanding of content.</td>
</tr>
</tbody>
</table>
Processes. In a teacher-centered classroom, the professor assumes that “structure can be modeled and mapped onto the learner” (Jonassen et al., 1995, p. 10). As a result, knowledge is “transferred” from professor to student through one-way communication. Teacher-centered advocates argue that lecture is the most efficient means of allowing students to be receivers of information. Thus, the professor usually professes while the students listen. The process of the professor lecturing while students take notes dominates the teacher-centered course.

If in a student-centered classroom, however, the professor is removed as the center of the classroom, a question arises: What sort of processes keep students in the center? A student-centered approach places stock in more than simple communication from teacher to student, because this is not adequate to constitute education. A student-centered approach requires collaboration and dialogue among students and the professor (Anderson, 1998; Kearsley & Shneiderman, 1998; Jonassen et al., 1995; Savery & Duffy, 1995). Students should be actively constructing their own knowledge—discovering meaning and creating a personal perspective—by being engaged in tasks that are indicative of real-world activities: “The constructivist sense of ‘active’ learning is not listening and then mirroring the correct view of reality, but rather participating in and interacting with the surrounding environment in order to create a personal view of the world” (Jonassen et al., 1995, p. 11). In the student-centered classroom, students are responsible for engaging in academic “activity,” whereas professors serve as facilitators who make sure the student activity occurs in carefully designed and supported communities of learners (Axelrod, 1991). Student-centered processes have yielded valuable results in a variety of different fields (see Conway, 1997; Branch, 1998; Lord, 1997; Spicer & Bonsell, 1995).

Why Must the Online Course Be Student-Centered?

It is my argument that an online course must be student-centered if the goal is student learning. This is an argument, however, that has been rejected by faculty across the academy for several reasons. Some reject this argument under the guise that “their content is static (sacred?)” and “does not change all that much” (Cornell, 1999, p. 60). The perceived static nature of the content leads some faculty to argue that pedagogy should remain traditional because it has been productive. Cornell points out that this argument is weakened by professors who are teaching ancient philosophy (static content) in the electronic classroom.

Others reject the student-centered classroom in favor of an efficient teacher-centered classroom in which online technology lessens a professor’s time commitment to teaching and requires fewer resources than would be required to design and support a meaningful student-centered environment. The assumption is that professors can simply type their lectures into a file,
e-mail them to students, and then allow students to regurgitate the information on a test.

As Schieman, Taere, and McLaren (1992) point out, many arguments insisting on the virtues of a teacher-centered online classroom come from pedagogues who are new to distance education. They bring with them assumptions from traditional environments about teaching and learning that are not grounded in theory. In fact, in what follows, I use a pedagogical and social argument to demonstrate why a teacher-centered online course won’t work.

From a pedagogical perspective, a teacher-centered online classroom is an oxymoron in that it removes the need for the professor. In the online classroom, “lectures”—the very essence of teacher-centeredness—come in the form of predesigned text. This text may be predesigned written tutorials or e-mailed lectures, but in both cases the teacher-centered aspects of a course manifest themselves as text. If these lectures are the means for filling students with knowledge and if these texts are the “center” of the course, what role does the professor play? The student is forming a relationship with the text, not with the individual professor. These texts do not necessarily have to be designed by professors; they could just as easily be designed by instructional designers or—worse—by textbook companies. In effect, assuming that a course can be centered on the students’ relationship with the text and the students’ relationship with evaluations is to negate the need for professorial leadership in any form. The professor is obsolete. To put it differently, the teacher-centered “bells and whistles” are “embedded in a fancy software package and do not consider what the learner can receive and handle as part of the learning process” (Palloff & Pratt, 1999, p. 63).

Socially, the problems of a teacher-centered classroom as a framework for the online course are heightened. In a traditional face-to-face course, students are aware of a large social dimension to learning. Even when a course is dominated by the professor, students are bombarded with visual and audible clues that there is a social dimension to the teaching and learning process—students are not “alone” in their efforts to learn. The experience is humanized through the senses. In the online classroom, many students feel a strong sense of dissonance because visual and audible clues are nonexistent. The online classroom depends on student interaction and dialogue for clues to the social dimension of learning (Palloff & Pratt, 1999). This social dimension reminds students that they are dealing with people at the other end of cyberspace. The absence of these clues is dehumanizing. Socialization and humanization can help alleviate the dissonance inherent to online learning (Draves, 1999). (For a complete discussion of humanization, see Article Seven of this volume.)

It is not just humanization that is activated by student interaction and active involvement. In fact, a student’s very existence depends on active participation. If students are not bound by place and time, the only visible clues to their very existence are their contributions and active involvement in
classroom procedures: “If students . . . do not post a contribution to the discussion [for instance] . . . the instructor has no way of knowing they have been there” (Palloff & Pratt, 1999, p. 6), and neither do the other students in the online class.

As I have shown, the online course cannot be an example of good pedagogy if technology is used without a student-centered approach to learning. Technology is a tool—what Connelly and Clandinin (1988) would call a “thing”—and tools are meant to be used to solve problems, not just to deliver messages. Different types of technology can be used as “tools for analyzing the world, accessing information, interpreting and organizing [students’] personal knowledge, and representing what they know to others” (Jonassen & Reeves, 1996, p. 694). Because the online classroom exists solely within the confines of technology, course activity is occurring within the confines of technological tools. Thus, course activities rely on students’ acts of organization and interpretation.

This argument is strengthened by Johnson and Johnson’s (1996) assertion that there is an inherent tie between technology use and certain types of group work. The very act of organizing data—such as in the creation of a database—is part of “the knowledge construction process” (Jonassen et al., 1995, p. 20). A student uses a tool to yield data; the data are shared with other students who work to synthesize and interpret the data. As a result of the use of both technology as a tool and group work as a means of creating and disseminating knowledge, students are less dependent on faculty members for knowledge (Pitt & Clark, 1997).

The nature of an online course requires a student-centered approach for yet another reason. The nonlinear nature of hyperlinks both internally to a course and across the World Wide Web results in an astronomical amount of material that can be examined. The material cannot be neatly packaged by a professor and handed to students. Students must “go get it.” Self-direction and initiative are required on the part of the learner to define learning and then systematically explore the online context to meet personal goals (Draves, 1999). (For a full discussion of student behaviors necessary for success in online classrooms, see Article Five of this volume.)

The Delineation of a Theoretical Framework for Action

To this point, I have provided a description of the student-centered classroom and presented arguments for why this approach is not merely a preference for making the online classroom a viable educational alternative. Instead the online classroom necessitates a student-centered approach. In this section, I delineate the theoretical framework for the online classroom. Because most of the articles in this volume focus on the practice of teaching in the online classroom, my goal is not to offer practical strategies for effective teaching. Rather, I simply attempt to connect the online classroom
context with the concept of student-centeredness presented in the first section of this article and with the arguments for online courses adapting a student-centered perspective presented in the second section.

Figure 1.1 represents the online classroom. When used as a heuristic for pedagogical monitoring and self-evaluation of the online classroom, this model can help faculty members ensure that students have valuable experiences. In implementing the model, the professor should remember that while technology is inherent to the model, the focus is not on technology but on pedagogy. The emphasis should be placed on managing the learning experience, not on managing the technology (Bates, 1995; Palloff & Pratt, 1999). I recognize that to some extent the medium and message cannot be separated; nevertheless, the technology should become seamless so that professors and students can focus on course content.

As the figure shows, students are the center of the classroom model. They should interact with each other in an effort to understand course content. In the online classroom, collaboration among students is essential to promote learning (Christiansen & Dirckinck-Holmfeld, 1995; Kearsley & Shneiderman, 1998; Moller, 1998). Berge (1996) agrees and discusses student interaction both with people and with course content. These two types of interaction can be seen in different degrees. Students can communicate in one-on-one situations, but they also can engage in different types of posts that can be read by a variety of audiences (Anderson, Benjamin, Busiel, & Parades-Holt, 1998; Berge, 1999). Students can, for example, create posts for a small group of classmates, but they also can write articles that can be saved on a server for all surfers of the Web to find. The type and scope of interaction should depend on the shared goals of students (Christiansen & Dirckinck-Holmfeld, 1995).

Though Figure 1.1 shows the professor on the periphery of the classroom, the online classroom does not diminish the faculty role (Olcott & Wright, 1995). Rather, the faculty role is reconceptualized to allow maximum independence among students. The professor's role in the online classroom is to frame the course and supplement student interactions by providing resources and opportunities. To frame is to facilitate students' desire to develop and implement shared goals. To frame is to eliminate the innate tension between the pluralism inherent in a group of students and the need for shared goals that will allow students to reach learning objectives.

One way professors can frame an online course is to establish clear goals, objectives, and learning outcomes (Palloff & Pratt, 1999). Even when the design of a course is beyond the purview of the course professor, other ways of framing are possible. For example, the student-centered paradigm can be highly disconcerting to many students because traditional courses don't necessarily prepare them for the level of interdependence necessary in an online course (Palloff & Pratt, 1999). As a result, the professor might frame student collaboration by focusing on the rationally selfish motives of
each student. Only by working together can individual students reach their own highest potential.

Evaluation of student work is another area where faculty can frame a course to help students achieve efficiency. Students could perceive evaluation in the online course as a subjective and whimsical process. This can be disconcerting. Professors can foster dialogue and negotiation about assignment criteria to help students better understand the demands of an assignment. (See Article Nine of this volume for a full discussion of student evaluation in online courses.) Framing students’ interactions can also be accomplished in pedagogies that are equally effective in traditional classrooms: Socratic questioning, summarizing, clarifying, and helping students connect their ideas with course theory can all be valuable tools for framing.

Beyond the responsibility of framing, professors should supplement student interactions with traditional resources, Web resources, and problem-solving opportunities. Professors should also encourage students to contribute resources of their own and share from their own personal practical knowledge (Connelly & Clandinin, 1988) that has developed as a result of their unique experiences. Each of these supplements can foster distinctive types of learning in online courses. For example, requiring students who are taking an online geology class to join a seismology listserv or regularly read an oceanography newsgroup can provide students with a real-world opportunity to examine and participate in a professional discourse community. Similarly, students enrolled in an online management course can offer anecdotes and examples from their respective workplaces that provide salient examples of course concepts.
Conclusion

The online classroom is dynamic; it develops a life of its own based on the course content, student personalities, and the professor’s ability to monitor and guide the course and make adjustments based on students’ needs, interests, and goals. Although students determine the direction of a course through their active engagement with course materials, professors must react to the direction that students provide. My hope is that professors will find Figure 1.1 helpful in reacting to students’ initiatives.

References


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