

Editor's Note: In distance education, learning communities facilitate social interaction that engages students and promotes learning. Rather than criticizing distance learning for what it is not (face-to-face), we should capitalize on its peculiar advantages for social networking, dialog, and exploration of ideas. In the traditional classroom, many voices remain silent because time is limited and the environment is competitive. In the virtual community, social interaction can build collaboration, teamwork, and mutual support.

Social Interaction as a Contributor to Significant Learning Outcomes in Online Instruction

Tara Newman, Mary Olle, Carol Bradley

USA

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Introduction

There has been a dramatic increase in online coursework in higher education over the past decade. According to Allen and Seaman (2010), there was a 17% growth in online enrollments between 2007 and 2008. While many institutions offer only single courses online, others offer entire degrees and students at all educational levels (from primary school through graduate school) are choosing to participate in courses through a distance format, including hybrid and fully online options.

Several reasons are cited as contributors to this rapid growth. Principally, recent economic shifts have increased a demand for more flexible options to achieve the continuing education credits, certifications, and/or degrees necessary to retain current positions, seek advancement, or acquire new employment. Indeed, 87% of public institutions surveyed attributed economic concerns as a contributing factor to the increased demand for online courses and programs (Allen & Seaman, 2010; Young, 2006). Not only are economic concerns motivating learners to seek online offerings, but institutions are finding that by offering courses online, they, too, can utilize their declining resources more effectively. For example, a reduction in photocopies results in financial savings both in materials and employee time.

In addition to the economic motivators for online coursework, some authors assert that the flexibility offered when teaching online courses is especially appealing to faculty (Li & Irby, 2008; Young, 2006). Instructors who gravitate toward teaching in the online environment may do so primarily for the flexibility it provides to address professional responsibilities outside of teaching, such as research and service, as well as personal obligations. Furthermore, because all course-related information (i.e. class rosters, student correspondence, grades, submitted assignments) is contained and compartmentalized within the learning management system, faculty are not restricted to an office or classroom to meet their students' needs.

It is well documented that online offerings also permit students the flexibility to manage their daily work and personal responsibilities with the demands of higher education (Li & Irby, 2008; Park & Choi, 2009). Moreover, by participating in online courses, they are able to save money on the extra expenses associated with attending face-to-face classes, such as travel, hard copies of materials, and care for family members in their absence.

Each of the aforementioned factors contributes to the increase in online course enrollment. It is apparent that online course work is a benefit to institutions, faculty, and learners alike and will likely continue as a major component of higher education (Dawley, 2007). Therefore, it is critical to understand the elements of high quality online instruction, particularly in programs that are preparing emerging professionals to enhance the lives of individuals, families, and communities.

Theoretical and Philosophical Foundation

Effective online teaching requires a commitment to developing caring relationships in the virtual world. In the face-to-face classroom, students who are emotionally present tend to engage in spontaneous informal discussions about the content of the course before and after class, during breaks, and even in other settings (Picciano, 2002). Emotional presence also contributes to informal content-based interactions in the online environment; although, unlike the face-to-face setting, the instructor designs the environment to intentionally stimulate these informal interactions.

The principal concept supporting this intentional design is rooted in a dialectical constructivist philosophy. Incorporating research-based practices that have been demonstrated to generate engaged community fosters increased social interaction in the online setting, and it is these meaningful interactions that later lead to significant learning outcomes. These authors suggest the following model to demonstrate this process.



Figure 1. The process leading to significant learning.

At the heart of dialectical constructivism are the following ideas:

- knowledge is constructed by the learner;
- construction of knowledge is socially mediated;
- knowledge is meaningful only in the context in which it is received; and
- new knowledge is built upon the prior knowledge of the learner (Bruning, Schraw, & Norby, 2011).

Therefore, the online environment should be designed in such a way that students have opportunities to construct appropriate knowledge with others in situations where the content is woven into a meaningful context and intentionally builds upon what learners already know (Yang, Yeh, & Wong, 2010).

Experiences such as those previously described are seen in both high-quality online and face-to-face classrooms; however, Bruning, Schraw, & Norby (2011) assert that well-developed computer-based environments can foster deeper learning (including metacognition and self-regulation skills) than what typically develop in traditional classrooms. One must remember, though, it is not the technology itself that induces these advanced outcomes, but rather how the technology is used (Bruning, Schraw, & Norby, 2011).

The idea of utilizing certain methodologies in the teaching process is a fundamental component of the field of education. When discussing effective online instruction, one must realize that there is an overarching philosophy involved, not only a set of strategies. It is one's philosophy that guides the educator in his/her teaching methodology, not merely the desire to implement new strategies

(Brooks & Brooks, 1999; DeVries, Zan, Hildebrandt, Edmiaston, & Sales, 2002; Fosnot, 2005; Noddings, 2002).

With that in mind, educators who are interested in enhancing student learning outcomes realize that with the expectation that students develop as problem solvers, critical thinkers, and effective communicators, a simple set of strategies is insufficient (Cagnon & Collay, 2001). Therefore, the focus shifts from regurgitation of information to actual learning. Indeed, Fosnot and Perry (2005) state that the focus moves toward cognitive development and deep understanding, rather than a superficial demonstration of factual knowledge. When learners reach that level of achievement, they are then demonstrating that not only can they access the information they seek but they can also apply that information – two very important objectives of the educative process (Cagnon & Collay, 2001).

In a constructivist environment, these objectives, both for knowledge as well as skills and processes, are formatively assessed. This can clearly be seen in the face-to-face classroom where a teacher serves as a facilitator of knowledge while the learner is its constructor. It is similarly demonstrated in the online environment when the instructor is skilled in the art of facilitating constructive learning online, resulting in a sense of community and social interaction which, in turn, lead to desired student learning outcomes. An effective online educator understands the perspective of his/her students thereby allowing for enhanced interaction with the content through the use of discussion and elaboration of the learners' ideas (DeVries et al., 2002; Dewey, 1985; Marlowe & Page, 1998).

The following recommended practices hold their origins in the philosophical and theoretical framework as presented in this section. The reader should note the emphasis on community development, participant engagement, and student learning outcomes as facilitated by interaction with peers, academic content, and instructors.

Recommended Practices

In this section, a variety of recommended practices are presented that reflect the philosophy outlined above. In addition, the authors share personal experiences about the implementation of these practices in both graduate and undergraduate courses in several areas of family science. Intentionally planning for both formal and informal interactions is a critical component of effective online instruction. These authors recommend focusing on the triangular strategy of facilitating meaningful interactions among peers, content, and instructor.

Interactions with Peers

Social constructivists expect the learning process to involve interaction with other people and/or environments (Huang, 2002). Successful peer-to-peer interaction contributes to a greater sense of community, increased learner motivation and enthusiasm (Dawley, 2007; Huang, 2002; Robin Smith, 2008). In addition, peer-to-peer interactions contribute to strengthened critical thinking and problem solving skills as outcomes. Peer collaborations facilitate the co-construction of new knowledge (Regina Smith, 2008), which is the primary goal in education.

Interactions with Content

A key element of a constructivist philosophy is “the way in which students interact with, come to learn, and come to understand content” (Marlowe & Page, 1998, p. 65). Teachers who practice through a constructivist lens select content that is challenging to the learner. They adhere to the principal that it is important to connect academic content with real-world problems (Huang, 2002).

The degree to which students interact with the content depends upon the course design (Swan, 2003). Developing content that is readily accessible enables students to take ownership of their

learning. Students can revisit content as needed. In other words, they can spend more time on concepts that they find difficult and less time on those that they deem less challenging.

Content presented using meaningful examples helps students make important connections. While content itself is important, it is the instructor who creates the bridge between the content and the learner. (Robin Smith, 2008).

Interactions with Instructors

The role of the instructor in the online environment is that of a facilitator. Instructors lead students through the content rather than dispense knowledge. As they serve as models of good communication, they eliminate isolation and foster both social and academic engagement (Dawley, 2007). Highly interactive instructors strive to address the social need of learners, as well as their academic needs. They empower them to pursue the information they need (Cercone, 2008; Dawley, 2007) to be successful in both arenas.

Without the scaffolded interaction a skilled instructor can provide, the online class risks being a digital correspondence course (Conrad & Donaldson, 2004) that may result in an ineffective acquisition of content.

To fully benefit from the opportunities afforded by online instruction, the trio of interactions - among peers, content, and instructors - must be employed. Through the use of effective practices, engaged learners spontaneously connect socially, resulting in significant learning outcomes. In the following section, the authors share their experiences with incorporating these practices into their own classes.

Incorporating Effective Practices

Small groupings of students are encouraged to promote a deepened sense of community among all class members in which a co-construction of knowledge can occur. Furthermore, social interaction has a positive effect on the amount of information retained as well as on the length of retention. Learning that occurs through small groups frequently mimics real life tasks and problem solving (Dawley, 2007).

Collaborative learning through small groupings has successfully been incorporated into online courses through intentionally and/or randomly generated learning teams; asynchronous discussions; and scenario analysis activities. These practices are further explained in this section.

Learning Teams

In some courses, instructors find that high enrollment numbers create a sense of loneliness within the online environment. The spontaneous connectedness that seems to develop in face-to-face classes needs to be intentionally fostered. When not provided with meaningful opportunities to interact with fellow learners in an online class, students can feel isolated. In order to decrease this feeling – and increase a sense of community - some instructors elect to form classes within a class by creating learning teams (LT). These LT are the basis for semester-long engagement in the course. A majority of the content-based interactions are with the same LT members, which contributes to strengthened relationships over the course of the semester and/or program. These relationships allow for a degree of trust that permits students to freely share ideas and questions without fearing judgment. The rapport that develops among the learning teams persists beyond individual courses and even into the professional realm.

Learning teams can be formed by intentional or random grouping methods. There are benefits to both methods and the decision to choose one or the other depends on the course content, class enrollment, and philosophy of the instructor. These authors have experience using both forms of grouping and share the following insights.

Randomly generated learning teams. Most learning management systems have a feature that randomly generates groups. Utilization of these tools is an easy way to organize students. Random grouping simulates “real life” where professionals are required to work with people that may be very different than themselves. When learners have the opportunity to interact with diverse perspectives, they are also provided the opportunity to develop advanced professional communication skills.

Intentionally generated learning teams. While more time-intensive, intentionally-generated learning teams can also be beneficial to student learning. For example, in a survey or foundations course, where a variety of majors are enrolled in the same class, teams can be formed by discipline to facilitate connections among emerging professionals in the same field. Learners can expand on the theories or concepts being studied in the class by applying them to their specific area of study. The similar backgrounds of those in the same field enable students to examine content through a common lens resulting in both personal and professional connections.

Asynchronous Discussions

Using asynchronous discussions for learning-teams to interact about content is one strategy used to foster an engaged learning community. The process of “type, post, wait, and read before responding” encourages students to stay focused longer on one topic (Dawley, 2007, p. 127) and stimulates open dialogue that bonds learners to content and one another.

Small group discussions are a structured way for students to interact. It is during these structured conversations that an engaged learning community evolves, leading to the spontaneous social interactions that are essential to significant student learning (see Figure 1).

To create the engaged learning community desired, it is imperative for instructors to use effective practices. As Robin Smith (2008) explains, “good discussion questions elicit discussion” (p.89). A good question should be open ended, allow for expression of individual perspectives, and be directly connected to the content. As students maneuver through difficult conversations, they build relationships that transition from obligatory classroom discussions to spontaneous and social interactions involving the content.

Scenarios

Presenting students with a scenario to analyze as a group is a valid option for use in the asynchronous (discussion board) *or* synchronous (chat). By asking students to apply the course content to a real-life situation, they synthesize a variety of perspectives to produce appropriate solutions or responses. Offering a scenario as the focus of a group discussion can promote critical thinking among the members of a group and “...mimics today’s specialized work environments where employees are often required to work as a part of a team toward achievement of a larger goal” (Dawley, 2007, p. 100).

Both randomly and intentionally formed learning teams benefit from scenario analysis activities. Intentionally-formed groups, linked by a similar background, may share overlapping perspectives on issues presented in the scenario whereas a random combination of varying backgrounds may generate a wider variety of responses and perspectives. Regardless of the group composition, a sense of camaraderie can arise as students ponder possible responses to a situation which further contributes to significant learning outcomes.

Open Forum

It is imperative to use effective practices that lead to structured interaction with peers, content, and instructors. The use of directed asynchronous discussions and scenario analysis activities provide such opportunities. Once students have engaged with the learning community, they may find themselves seeking an outlet for social interactions with their peers. One way to mimic the

side conversations students have in the face-to-face environment is to create places online that are specifically designed for non-graded social interactions.

The use of an “open forum” in the asynchronous discussion board is one strategy used to further facilitate social interaction. In the open forum, students can post questions for one another (related to content or not), share information deemed of possible interest to others, and/or engage in general chitchat. This informal environment can be less intimidating to students, increasing participation through casual social discussions and contributing to a greater sense of belonging. Because they can openly discuss topics of their choosing, interdependence and cohesion develop among the students, further contributing to emotional presence within the course. Students who interact in the open forum are not only cognitively and emotionally stimulated, but are socially fed, as well (Dawley, 2007).

Implications

Since the growth in online coursework does not appear to be declining in the near future, it is imperative for faculty in higher education to increase their effectiveness in electronic delivery of academic content. The philosophy and strategies discussed in this paper have numerous implications for the field of higher education.

By offering student-centered instruction through electronic means, educators are preparing future professionals to function in the workforce in ways that might not be possible in the face-to-face classroom. Because students are essentially forced to complete assignments using electronic methods, they gain experience with those tools that will enhance their work in their future careers. These professionals will be better equipped to serve their prospective employers and clients, who will expect communication in various electronic formats (webpages, e-mails, social networking sites, e-newsletters, etc.). It is imperative that we prepare the emerging workforce to face the challenges of communicating in the digital age.

Students are learning how to function in the modern work environment in additional ways. The modern work environment frequently expects employees to collaborate to achieve a common goal (Dawley, 2007). Interpersonal skills acquired in the virtual classroom are transferrable from the online academic setting to a variety of work environments.

Due to the lack of informal social connect frequently found in distance learning, student retention is lower for online than face-to-face courses (Allen & Seaman, 2010; Picciano, 2002). The need to develop meaningful virtual interactions is intensified by the strong connection between student engagement and retention. These interactions are the key to learners’ desire to persist (Kemp, 2002), which results in significant learning outcomes. Additionally, an institution’s retention and graduation rate is directly related to their budget, which is especially critical in the current economic condition.

Conclusion

The rapid growth of distance education makes it clear that those in higher education need to pay attention to the needs of online learners to a greater degree. The tenets outlined in this paper exemplify effective online pedagogy. By incorporating strategies that lead to an engaged learning community, learners are more likely to exhibit informal social behavior. These authors maintain that it is these informal interactions that contribute to the construction of significant learning outcomes.

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About the Authors



Tara Newman, Ed.D., CFLE is Assistant Professor in the School of Human Sciences and Director of High-Impact Practices at Stephen F. Austin State University. She has worked in a variety of areas serving children and families, including child care, public school, parent education programs, and higher education. She has presented at an assortment of conferences and workshops concerning effective instruction, created several graduate and undergraduate courses, and teaches almost exclusively online.

tanewman@sfasu.edu



Mary Olle, MS, is an Instructor in School of Human Sciences for Stephen F. Austin State University in Nacogdoches, Texas. In addition, she serves as the Family and Consumer Sciences Coordinator. Her teaching experience includes 14 years in the public school system as an FCS teacher. She is currently pursuing a Ph.D. in Family and Consumer Sciences Education with an emphasis in Instructional Technology at Texas Tech University.

ollemary@sfasu.edu



Carol Bradley, MA, RD, LD holds a MA in Nutrition from University of Texas. Bradley currently serves as instructor of nutrition in the School of Human Sciences, Stephen F Austin State University, Nacogdoches where she has created several online courses in nutrition including sports nutrition. Bradley is currently pursuing a PhD in School and Behavioral Psychology. Her research interests include working with children with Autism and improving health-related behaviors.

bradleycarol@sfasu.edu

[Return to Table of Contents](#)