Chapter 2: Blended Interactions

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Questions to Ponder

- Is there value in student-to-student and student-to-instructor interaction in all courses regardless of discipline?
- What role does interaction play in courses in which the emphasis is on declarative knowledge (e.g., introductory "survey" courses at the lower-division undergraduate level) or, similarly, in courses that cultivate procedural knowledge (e.g., technical courses requiring the working of problem sets)?
- As you consider designing a blended learning course, what kinds of interactions can you envision occurring face-to-face, and how might you use the online environment for interactions? What opportunities are there for you to explore different instructional strategies in the blended course than you have in the past?
- What factors might limit the feasibility of robust interaction face-to-face or online?

Introduction

The National Survey of Student Engagement's 2007 notes the importance of high impact activities where learners "interact with faculty and peers about substantive matters" (National Survey of Student Engagement, 2007, p. 7). High impact activities increase learner engagement and result in greater success in learning. The EDUCAUSE Center for Applied Research (ECAR) reports many younger students prefer an appropriate balance of technology and face-to-face contact with faculty (EDUCAUSE Center for Applied Research, 2007). Further, according to the ECAR National Study of Undergraduate Students and Information Technology (2011), "More students (36 percent) prefer a blended learning environment of seminars and other smaller classes with some online components to any other configuration of face-to-face and online options" (p. 27). Explaining the principle behind this finding, Dziuban, Hartman, and Mehaffy (2014) observe that

> Blended learning, in all its various representations, has as its fundamental premise a simple idea: link the best technological solutions for teaching and learning with the best human resources…. encourag[ing] the development of highly interactive and collaborative activities that can be accomplished only by a faculty member in a mediated setting. (p. 332)

Even though technology enables greater learner control and autonomy, learners generally value social contact and faculty guidance, especially when entering a new field or course of study (de Laat, 2006). In fact, some might argue that student interaction with faculty and with other students in the context of learning is an expression of a basic human need.

Extrinsic Motivation: Interaction with Experts

We will consider models for blended interactions from two vantage points. First, we will explore the apparent dichotomy between faculty guidance and learner self-direction from the stand point of designing learning

environments. Then, we will consider how students' own need for personal expression may be leveraged in blended learning.

Minimal or Guided Learning?

Kirschner, Sweller & Clark (2006) question the tenets of problem-based learning, highlighting the unsettledness of the debate between instructor or learner control in learning activities. They argue that the constructivist views of learning are accurate, but the "instructional approaches suggested by constructivists" are not necessarily effective. Of particular concern for the authors of the paper is the degree of instructor (or expert) presence during the learning process. They assert that minimal guidance is not as effective as guided instruction due to different approaches evident in how experts function (epistemology) in a domain and how learners best learn.

Gardner (2006) states that the distinction between an expert and novice is found in how information and ideas are related to each other: "But shorn of their connections to one another, to underlying ideas, to a disciplined way of construing this pile of information, facts are simply 'inert knowledge'" (p. 28). The conceptual network of an expert is more richly connected, nuanced, and diverse than that of a novice.

In contrast with strong guidance, Sugata Mitra (2007) details an experiment he conducted in India (now commonly known as the "hole-in-the-wall" experiment) where he placed a computer with an Internet connection in a wall facing a ghetto. Within days children aged 6-12, with minimal education and limited understanding of English, were able to browse the web and perform other tasks – such as drawing – on the computer. The self-taught, minimally-guided nature of the experiment led Mitra to the conclusion that children do not require direct instruction to acquire basic computer literacy skills. [See a video of Mitra describing his work in a TED Talk.]

Research by Darken and Sibert (1996) on "wayfinding"explores a similar theme of the learner-in-control approach to learning; how participants in large virtual worlds orient themselves in their environments in order to achieve certain tasks or arrive at certain locations. With wayfinding, the effectiveness in achieving objectives for learners/participants is determined by the design and incorporation of environmental cues. Minimal guidance is also reminiscent of game design concepts like player challenge and scaffolding. Asbell-Clark et al. (2012) explain that

> *In game design there is a constant tension between what is enough scaffolding to get players motivated and able to pursue the mystery and how much can be left open-ended for players to learn on their own. Too much scaffolding can easily feel "school-like" and procedural, taking away from players' initiative to tinker around to discover things on their own. Too little scaffolding may leave players lost and disengaged." (p. 53)*

Whether self-directed and initiated (Mitra, 2007) or aided through advance consideration of design (Darken and Sibert, 1996; Asbell-Clark et al., 2012), it is clear that many learning objectives can be achieved without direct guidance.

The concern of minimal guidance in learning is compounded by the growth of online content created by amateurs. The criticisms leveled at knowledge sources created by the self-organizing "masses" are often applied to the concept of learner-directed activity. Two significant challenges arise when considering learning as being largely under the control of learners themselves. The first is generally found in some variation of "how will the learners know what they need to know?" The second relates to the rapid decentralization and distribution of most of society's channels of communication – newspapers, television, radio, and, more recently, academic publishing – and raises concerns of how learners are to make sense of information in a field that is fragmented and distributed, rather than well organized and coherent (such as information found in a traditional textbook).

Personal learning environments (PLEs) offer a future model of learning that incorporates a greater range of tools, largely under the control of the individual. PLEs are "not a piece of software…[but] an environment where people and tools and communities and resources interact in a very loose kind of way" (Wilson, 2008). This general idea, although perhaps not this label, has been popularized in recent years through the prominence of Massive Open Online Courses (MOOCs) in which large groups of interested individuals swarm around a topic of interest and interact with one another to enable learning. Some MOOCs, referred to as xMOOCs are more overtly structured, while others, referred to as cMOOCs are less centralized but still feature a facilitative instructor presence (Morrison, 2013, April 22). Dziuban, Hartman, and Mehaffy (2014) observe that

> *Ironically, the same technologies that allow for disruptive strategies like MOOCs also enable a variety of blended learning models. Technology uncouples students from being continually present in the classroom.*

In the best of circumstances, technology allows professors to offload responsibilities that can be taken up by technology. (p. 332)

The Role of Educators in a Networked World

The role of the educator and the process of instruction have been under pressure to change for over a century (Egan, 2002). While different camps, as discussed, often fall into conflict on principles of minimal or guided instruction and instructivism or constructivism, the nuanced and complex nature of learning suggests each approach may have value in different contexts.

Several educators have put forward models of educator and learner roles and interaction in a technologically-enabled era:

- John Seely Brown's notion of studio or atelier learning
- Clarence Fischer's notion of educator as network administrator
- Curtis Bonk's notion of educator as concierge
- George Siemens' notion of educator as curator

Atelier Learning

John Seely Brown draws inspiration for his atelier model (Brown, 2006, March; Indiana University, 2009, April 21; Brown, 2013) of learning from artists and architects and describes learning as "enculturation into a practice". An art studio is generally an open space where students create their paintings, sculptures, and other art forms in full view of fellow artists. The "master" is then able to observe the activities of all students and can draw attention to innovative approaches. Students are not limited to learning based solely on the expertise of the instructor. The activities of all students can serve to guide, direct, and influence each individuals work. Blogs are particularly amenable to the atelier model of learning. For example, a class on creative writing – where each students posts their work in their own blog – permits the educator to highlight (and comment on) exceptional instances of writing. Students are able to read each other's work and gain insight from both instructor and their fellow students.

Network Administrator

Clarence Fisher (n.d.), blogger and classroom teacher, suggests a model of "teacher as network administrator": Just as our mind is a continuously evolving set of connections between concepts, so our students and their learning can become placed at the centre of a personal learning network which they construct with our help. Helping students to gain the skills they require to construct these networks for learning, evaluating their effectiveness, and working within a fluid structure is a massive change in how the dynamics of classrooms are usually structured.

In Fisher's model, a primary task of the educator is to assist learners in forming connections and creating learning networks. As learners encounter new information sources, they are encouraged to critically evaluate the source's suitability as part of a holistic and diversified learning network. Gaps in the learning network are addressed by both learner (self-directed by active participation in the network and through self-reflection) and educator (through evaluating, with the learner, the nature and quality of the learning network (external) and how key concepts are related and understood (conceptual)).

Concierge Learning

Curtis Bonk (2007) presents a model where the educator is a concierge directing learners to resources or learning opportunities that they may not be aware of. The concierge serves to provide a form of soft guidance – at times incorporating traditional lectures and in other instances permitting learners to explore on their own. Bonk states:

We need to push students into the many learning possibilities that are ripe for them now. Concierges sometimes show you things you did not know were available or possible. Teachers as concierges can do the same things. We need to have quick access to such resources, of course, but as this occurs increasingly around the planet, so

too will we sense a shift from prescribed learning checkboxes toward more learner designed programs of study. Now the Web of Learning offers this chance to explore and allow teachers to be their tour guides. (para 6)

While the focus of this chapter has been the higher education context, the affordances of blended learning models for the learning of primary and secondary (K-12) students has been identified by Staker and Horn (2012). Several of the K-12 blended learning models leverage technology to provide a more concierge-like role for the teacher. [See a video depiction of one such K-12 blended learning implementation.]

Curatorial Learning

Curatorial Learning(Siemens, 2007) acknowledges the autonomy of learners, yet understands the frustration of exploring unknown territories without a map. A curator is an expert learner. Instead of dispensing knowledge, he creates spaces in which knowledge can be created, explored, and connected. While curators understand their field very well, they don't adhere to traditional in-class teacher-centric power structures. A curator balances the freedom of individual learners with the thoughtful interpretation of the subject being explored. While learners are free to explore, they encounter displays, concepts, and artifacts representative of the discipline. Their freedom to explore is unbounded. But when they engage with subject matter, the key concepts of a discipline are transparently reflected through the curatorial actions of the teacher.

Blending Expertise and Learner Control

The four models presented above share a common attribute of blending the concept of educator expertise with learner construction. The concerns of instructivist and constructivist education are addressed in the focus on connection-forming in learning. Whether seen as master artist, network administrator, concierge, or curator, the established expertise of the educator plays an active role in guiding, directing, and evaluating the activities of learners.

Intrinsic Motivation: Interaction as Human Need

Kelly and Cox (2008) use the term "techno expression" to refer to "a technology-based process by which one or more people, either individually or collaboratively, use words and/or media to articulate ideas or thoughts" (p. 414). They hold that this is merely a manifestation, in our networked age, of an intrinsic need "to express their ideas and viewpoints, both within and outside the context of their coursework" (p. 414).

Considering Techno Expression During Course Design

In this section we focus on those aspects of course design that relate to interaction and expression. We will give some examples and strategies for providing students with opportunities for expression in any scenario, face-to-face courses with online supplements, hybrid courses, and fully online courses. We will also discuss our own experiences with, and preferences among, these three scenarios.

When you design your own online course environment, keep interaction in the front of your mind. Many people new to using the online environment start the course design process by planning what materials they want to upload. For example, many instructors state "I just want to upload my syllabus for now." This is a logical place to start. After all, you want the students to know up front what your expectations are, whether they are the course learning objectives, your course policies, or your grading plan. It does not take much more, though, to give students an opportunity to state their own expectations for the course. Create a threaded discussion or wiki assignment, asking students to review the syllabus and then to write one or two things that they would like to get out of the course, how the material could be made more meaningful to them or for their goals, and even their preliminary opinions about some of the main course themes or topics.

Even if you are not completely familiar with the online environment, you can go beyond just uploading a syllabus by including course materials, such as readings, presentations and lecture notes. Again, it will not require a huge effort to create one general threaded discussion to let students tell you about the applicability of the materials to their lives or studies or to express their opinions about different aspects of the content itself.

In addition to giving students an opportunity online to discuss the course overall and its different components, we recommend giving students an opportunity to talk about themselves. Many face-to-face instructors devote some portion of the first class meeting to an icebreaker activity or student introductions. You can do the same thing online. Create a discussion forum, blog, or wiki assignment for students to state how the class will help them meet academic or professional goals, or what they expect to achieve personally. An online activity like this allows you to return to it throughout the term, assigning student reflections about their own progress towards the previously expressed goals. The assignment can also enable other student techno expressions, such as photos, brief descriptions of where they are from, or even a sense of "in the moment" place (e.g., "From my computer, I can see the pine tree in my yard through the San Francisco fog each morning").These activities can be limited to individual student-to-teacher communication, or they can be public, so other students can provide encouragement, feedback, related stories or resources, and more.

Online Asynchronous Expression in Blended Learning

Asynchronous activities allow students to enter more deeply into the material or an idea. There is time to look up facts, to draft an outline of what to say, and to revise mistakes before others respond. For students who speak English as a second, third, or fourth language, asynchronous activities give them time to translate instructions or other students' ideas and to refer to other resources before they communicate their own thoughts. Provided that they have done some preparation, students can be more confident in their work. This aspect of student expression should not be underrated.

On the flip side, some people feel that going through a course with only asynchronous forms of communication can cause students, and even instructors, to feel disconnected. While I have participated in some amazing discussion forum sessions in which students have demonstrated genuine care for their peers, I recognize that we were in a hybrid class that got to meet in person half of the time. Students may drop out of a fully online class, even if it is past the drop deadline, if they do not feel a connection to the instructor or at least to some of the other students. At the beginning of an online course we've found it useful to ask students to talk about what fosters their learning. We share a script of online discourse from a previous semester and cast roles. After the script is read, we ask students to describe what they heard. They often respond by describing the voices as "respectful, collaborative, and caring", or "thoughtful and insightful—I could really hear that people took time to respond". How opinions are shared can be crucial to sustaining a safe environment that all will participate in. Hearing what a democratic dialogue sounds like can help to set a valuable tone and move a group from being a group of learners towards becoming a learning community.

Even in math- or science-related fields, students can express opinions. For example, you might create a wiki for the entire class or small groups to solve problems together over time. The first part of the assignment could be for each student to state the best way to solve the problem, to provide a rationale, and to vote on the one the group will use. For problems with more than one solution pathway, this could generate some interesting dialogue. Be sure to read all the winning solution pathways so you can steer groups in the right direction if no one got it right, or if the group chose the wrong pathway.

Face-to-Face Synchronous Expression in Blended Learning

Synchronous activities can provide a sense of community. We co-teach a hybrid class about distance education, where five of the ten class meetings are conducted online. The first classroom meeting is face-to-face. At this meeting, we ask students to use pastel pencils and construction paper to draw a symbolic representation of how they see the educational process. At the same meeting we use a focused listing activity, first asking students to list five to seven characteristics of the best course they ever took, and then to compare those lists with a neighbour to find similarities. We go through these two exercises back-to-back. It is always interesting to see how they yield some similar results, confirming what the students think, and some different results, perhaps due to the fact that the students are using a different part of their brains. The same is true for you. Provided that your students have equal access and ability to use various media applications, you can ask your students to use different methods to express their ideas.

If you have a choice, we recommend designing a hybrid course over a fully online course. Even if it means having only two face-to-face sessions—one to launch the course by setting course norms and expectations and by reading a script of online discourse to set tone, and one to close the class—this will improve students' abilities to express themselves freely to peers.

Similarly, it is important to mix it up, with respect to the work that you assign. Apply the good lessons that we have learned from those who have explored online community building, such as those that tell us to assign community roles, assign rotating facilitation, and incorporate assignments that ask students to engage in experiences offline and then to report back to the instructor or the class.

Construct Assignments That Encourage Expression

You may already have dozens of ideas, or you may have some difficulty thinking of assignments that require students to express their points of view. Below are some questions that you can use to get started during the course design process.

To Whom Will Students Express Themselves?

There are a number of potential audiences to whom students could express themselves: to the instructor, to an expert in the field, to a small group of peers, to the entire class, to prospective employers, and to the public.

No matter what size the audience or who is in it, students should be prepared to make their case, to state their opinions, and to answer follow-up questions. This means that over the course of a term, you should mix up the audiences for various assignments to give students practice in expressing themselves differently. For instance, a marketing student creating a video advertisement presentation will most likely behave differently for a group of peers than for an advertising professional. A special education credential student writing a reflective weblog entry about a classroom observation only for the supervising faculty member might use different language than for the public at large. These types of experiences will prepare the students not only for future coursework but also for job interviews.

How Will Students Express Themselves?

The question of how students can express themselves was discussed earlier. During the course design process, your task is to identify the best method for students to achieve the learning objectives. If you want to assign reflection activities, consider using ePortfolio, a blog, or a podcast. These reflections can ask students to describe why they did something a certain way, or they can ask for opinions about a topic. If you want to have students work in groups to perform research, use a wiki and ask students to state their viewpoints in addition to the facts related to the research topic. If you want students to give a presentation, either live or online, then use podcasts or VODcasts, have students post PowerPoint slides with audio, or have them give the presentation using an online meeting space.

Why Will Students Want To Express Themselves?

Many students will want to express themselves, but not everyone is built the same way. Some students may feel uncomfortable and others may not have much experience making their own thoughts public. Therefore, it will help if you choose meaningful assignments, define the expectations, and provide examples of good work.

Provide Guidelines for Students

There are a number of ways that you can help students—before, during, and after the assignment. Before, the assignment, write clear instructions, including information about your policies on academic integrity and plagiarism. Provide examples of prior students' work.

If this is the first group to do this type of assignment, go through the assignment yourself to create a model of what you consider to be good work. Let students know what could happen to their work if someone else were able to change it.

Acknowledge Student Views

It is not enough to just create an assignment that gives students a chance to give their opinions. For this to be a part of the learning process, we need to acknowledge the students' points of view and provide feedback. If workload is a factor, then try acknowledging just one or two ideas in the face-to-face setting. You can choose these at random, or you can pick the ideas that have generated the most discussion. The point is to let the students know that you are aware of their work and that you value their opinions.

Technology-Mediated Interactions and FERPA

While space does not permit a full treatment of this important topic, we would be remiss if we did not acknowledge that, in the United States, many technology-mediated course interactions are subject to the Family Educational Rights and Privacy Act (FERPA). Some institutions have provided direction to faculty in how to comply with FERPA. Many institutions have not. An introductory treatment of this topic along with examples of faculty FERPA statements excerpted from several course documents are available at: http://topr.online.ucf.edu/index.php/FERPA_Statements

Conclusion

In this chapter we have reviewed the important role of interaction between and among students and instructors in blended learning courses. We have considered how technologies might be leveraged by instructors to guide student learning or used by students to express themselves in their self-initiated interactions with others. However, Wegmann and Thompson (2014) point out that "a daunting concern remains: how do instructors monitor and enhance students' engagement in both [face-to-face and online] settings, while sustaining a viable blended course?" (p. 74). More systematic inquiry is needed on technology-mediated interactions in blended settings, but certainly, the evaluation of the efficacy of designed interactions must include the impact of those interactions on the assessment of learning. As we turn our attention in the next chapter to assessments of learning in blended learning contexts, we must remember to keep in view both the learning of the individual and the role of social learning.

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