This chapter provides definitions and distinguishing characteristics of the various terms used in the context of hybrid education. The author also offers an overview of the recent literature on hybrid teaching and learning.

Fundamentals of Hybrid Teaching and Learning

Kathryn E. Linder

Hybrid pedagogy is a method of teaching that utilizes technology to create a variety of learning environments for students. Instructors who employ hybrid pedagogies intentionally incorporate technology tools both to enhance student learning and to respond to a wide range of learning preferences. In hybrid classroom settings, face-to-face activities are often combined with technology-mediated activities so that there is more active learning in the face-to-face setting as well as more intentional guidance when students are learning outside the classroom. Hybrid courses often result in a decrease of “face time” since in-class activities are replaced by time spent outside a traditional classroom setting. For example, “flipping” a class so that students experience the primary lecture components of a course as their homework and then using class time for more active-learning activities is a form of hybrid pedagogy. A typical hybrid course might meet one hour a week in person and have the remaining hours for the course (amounts vary depending on the course credit load) consist of technology-enhanced activities for students to engage with outside of class.

Hybrid learning environments are similar to traditional classrooms in that they both include the presence of teachers and students, both course designs are based on learning goals and outcomes, and both include activities built for the purpose of student learning. For many instructors who design courses that are learner-centered, based on student learning objectives, and where learning objectives are aligned with assignments and assessments, there will be many similarities between the course design principles for hybrid courses and the principles used for creating traditional courses. Modalities for communicating with students and sharing information may change to accommodate new technologies, but helping students learn will remain the fundamental component at the center of the hybrid course.
Benefits of Hybrid Teaching and Learning

One of the most beneficial components of hybrid pedagogical methods is their alignment with differentiated instruction models that offer custom-designed learning activities for diverse student groups. In differentiated instruction, which is based on the principles of Universal Design for Learning (UDL), instructors consider students’ learning preferences, past experiences with the subject matter, and current interests to fully engage students with their learning. The application of UDL principles to learning environments has been tied to increased student engagement (Moore and Fetzner 2009), persistence (Field, Sarver, and Shaw 2003; Getzel 2008), and retention (Field, Sarver, and Shaw 2003; Getzel 2008; Moore and Fetzner 2009). In hybrid classrooms, the range of activities, both in class and online, can provide a diverse group of students with learning techniques that are most applicable to their learning preferences and that help keep them engaged throughout a course.

Hybrid education is an additional way that instructors can ensure that students are engaged with the course content by incorporating online learning communities, synchronous and asynchronous discussion, and a variety of online collaboration methods that encourage students to interact with the course materials, their instructors, and their peers in a variety of ways. In addition to increased active learning in class through the “flipped” model, hybrid courses also offer opportunities for increased student engagement because of the possibility of including extra support and resources online to enhance the learning experience. For example, in addition to providing a recorded lecture online, an instructor might also provide websites, images, additional short videos, and readings for students to further explore the course content. These online resources, when organized appropriately, can encourage students’ curiosity and motivate them to explore the material independently.

Additionally, hybrid learning environments allow students to self-pace. Students may have more options about when they can study, a wider variety of study materials to use, and a larger range of learning experiences that they can choose to partake in. Additionally, by putting components of the course such as lecture recordings online, students can choose to review some of the course content multiple times if they do not understand it the first time through. It is important to help acculturate students to this more independent learning environment rather than to expect them to thrive without direction, organization, and assistance from the instructor. Although some instructors have expressed concern that the use of technology in the classroom is a harbinger of the replacement of the professor, many believe that hybrid instructors and their interaction with and guidance for students in hybrid classrooms are key components to student retention and success.

Van de Vord (2010) claims that “the magnitude of information, in text, audio, images and graphics, available online, combined with a lack of
oversight and regulation, [in addition to] low information literacy skills” can be compared with “shark infested worldwide waters” (170) for college students. Although the students in today’s college classrooms have become increasingly reliant on the internet as a tool for learning, they may not have the skills to successfully navigate information, resources, or tools on the web. The drastic increase in information available online and the range of technologies available to help students learn has also made information, media, and digital literacy transition from a service offered solely by college and university libraries to being the responsibility of every instructor (Rockman 2004). Hybrid courses can be helpful environments for students to learn more about assessing the credibility of online information, to familiarize themselves with online resources and research tools, and to learn and use new technologies in a facilitated environment.

**Best Practices of Hybrid Course Design**

The pathway of course migration to incorporate online learning environments, tools, and resources often begins with the assumption that instructional design, grading procedures, and other methods that typically work in the traditional classroom will remain the same in online settings. In many cases, however, this is not the best method for the hybrid learner. Integrating technological literacy and practice into a traditional classroom course design in order to enhance learning creates changes on a fundamental level. Specifically, the transition to a hybrid classroom often necessitates a shift from teacher-centered to learner-centered methods and techniques (Huba and Freed 2000), as well as an increased level of student autonomy and independence with their learning (Caulfield 2011). In Ken Bain’s canonical work, *What the Best College Teachers Do* (2004), he argues that the best college teachers “help students learn outside of class” (114). Basing his argument within a backward design framework, Bain argues that “the best college teachers plan their courses backward, deciding what students should be able to do by the end of the semester ... with the goal of encouraging students to learn on their own, engaging them in deep thinking” (114). Bain’s argument points to one of the most important best practices of hybrid course design: alignment between in-class activities and instruction and out-of-class independent learning and homework. A common pitfall of hybrid course design is creating in-class activities and out-of-class experiences that are related to one another, but not explicitly connected for students in the hybrid classroom.

A second best practice in hybrid course design involves the intentional use of technology. A study by Olapiriyakul and Scher (2006) suggests the need for a creative balance between pedagogy and technology as faculty members make decisions about how to design, deliver, and provide support for hybrid courses, but this may be easier said than done. Indeed, it is clear that “the inclusion of technology in pedagogy further complicates teaching”
Figure 1.1. TPACK

Source: http://tpack.org/

(Koehler and Mishra 2008) even if it enhances student learning. Adding in new technologies can create challenges for both the instructor and the students if the technology is not intentionally chosen, or if training on the new technologies is not embedded into the course.

The concept of Technological Pedagogical Content Knowledge, or TPACK, has been offered as a framework to assist instructors in understanding how best to plan technology integration into the classroom (AACTE 2008). Based on the work of the Committee on Innovation and Technology of the American Association of Colleges for Teacher Education, as well as Shulman’s (1986; 1987) work on “pedagogical content knowledge,” TPACK breaks down the various relationships between the knowledges associated with pedagogy, content, and technology in order to help instructors better assess their strengths and weaknesses (see Figure 1.1).

TPACK, although initially designed as a tool for K–12 teachers, can also be used to encourage the integration of teaching and technology in higher education environments because it is fundamentally concerned with increasing the involvement of instructors in technology decisions that influence student learning. Because “technology and pedagogy are often considered domains that are ruled by different groups of people”—that
is, technologists versus instructors—TPACK also emphasizes the need for instructors to be appropriately trained in classroom technologies so that technology can be implemented at the course design level (AACTE 2008). One of the central goals of exploring TPACK is “breaking down this false dichotomy between pedagogy and technology” (AACTE 2008).

As TPACK emphasizes, a final best practice for hybrid course design is for instructors and students to be effectively trained and oriented in order to maximize the use of the technology in the classroom and in the online learning environment. If faculty members or students struggle with the technology tools that are integral to hybrid courses, teaching and learning will be disrupted. Training and time for students to understand the foundational technology tools being used in the course should be built into hybrid course design. Additionally, hybrid course designers should make sure that the technology tools being integrated into the course are being done so purposefully, so as not to overwhelm the instructor or the students taking the course. Each tool should be tied to a course goal and to student learning outcomes.

The desired goal to be achieved by integrating technologies to create a hybrid classroom is improving the quality of teaching in order to have greater effectiveness in student engagement, motivation, and learning. Contemporary students are engaged with numerous technologies in their day-to-day lives and hybrid classrooms offer institutions the opportunity to tap into student excitement about social media and multimedia. Students frequently only use these technologies for communication and entertainment, but what if they could also be encouraged and trained to use technology to aid their learning? Learning technologies provide institutions of higher education with the opportunity for improved and more effective teaching of on-campus students through the integration of electronic media learning materials, simulations and demonstrations that enhance the learning environment, better accessibility to a variety of knowledge data bases and experts, and continuous contact with professors and peers (Beller and Or 2006). Technologies can also provide instructors the opportunity to create learning activities for students that were previously impossible. For example, a panel of experts from around the world that students could only interact with via their writing and research can now be presented to students for real-time engagement via video conferencing technology.

Additionally, for those faculty members who are reticent to take the leap to teaching a fully online course, hybrid classrooms offer a transitional step for testing new technology tools and how they impact student learning. A 2012 study, Conflicted: Faculty and Online Education, found that “professors, overall, cast a skeptical eye on the learning outcomes for online education. Nearly two-thirds say they believe that the learning outcomes for an online course are inferior or somewhat inferior to those for a comparable face-to-face course” (Allen and Seaman 2012, np). A campus that plans to increase online learning courses or programs will benefit from hybrid
learning initiatives that may help to provide evidence of student learning through online environments.

Changing Roles of Teachers and Students

Due to some of the fundamental differences between traditional and hybrid classroom modalities, it is important to note that the role of the teacher and the role of the student undergo significant changes. In particular, hybrid courses often cause a shift from pedagogical principles (i.e., teaching methods aimed at children) to andragogical principles (teaching methods for adult learners). Many instructors have never heard of andragogy, but that does not mean that they are not already practicing adragogical teaching methods.

The shift from pedagogy to andragogy is foundational for the hybrid classroom because of the new emphasis on autonomous and independent learning that must occur during out-of-class time. Students in the hybrid format are expected to be more self-directed in their learning, and instructors must plan ahead of time for activities that will help to motivate and encourage each individual learner. Indeed, one of the obvious changes that teachers will notice from the beginning of their hybrid-course-design process is the amount of preparation that is needed to facilitate a successful hybrid course. To ensure the alignment between in class and out-of-class content delivery, activities, assignments, and assessments, it is often necessary to design an entire course of materials before the course is launched. This may be quite a change for instructors who are used to preparing for a traditional course the week (or the day) before. One account of transitioning a one-credit traditional course to a fully online environment found that there was a 75 percent increase in the time needed for course design (Carroll-Barefield and Murdoch 2004). Given planning, content translation to online, content creation, and the set-up of online assessments, among other necessary tasks, this estimate is not unrealistic for the time it might take an instructor to complete the design of a hybrid course.

Although the traditional classroom has become more learner-centered over time, as hybrid models for education continue to grow there has been some concern that hybrid courses can be developed as too teacher-centric with not enough emphasis placed on the student learner (Oliver and Trigwell 2005). For example, if instructors center their content delivery in a hybrid classroom around video lectures, it can appear as if there is a return to the “sage on the stage” pedagogical model, rather than the “guide on the side” active learning pedagogies that have been gaining popularity across disciplines. Moreover, the need for instructor training before teaching a hybrid course (particularly in the use of new technologies) can also shift the focus of the course, at least during the design process, to a focus on the instructor’s needs, which can serve as a distraction from a focus on student learning. Developing a course using the principles of backward design...
(Wiggins and McTighe 2004) is one method of ensuring that a hybrid learning environment will be student-centered. Although typical course design processes might start with a focus on content coverage, backward design emphasizes reflecting on the outcomes of the course first. Starting with student outcomes ensures a relationship between the course goals and learning objectives, activities used in the course, the assignments, and the assessment methods. Indeed, by utilizing backward design principles, one can also ensure that course goals, learning objectives, and methods of assessing student learning are intentionally aligned. Alignment becomes a foundational component of hybrid courses in which the relationship between out-of-class work and in-class activities often needs to be made clearer to students than in a traditional classroom environment.

Although hybrid learning environments do share some similarities with traditional classrooms in terms of design, there are also significant differences between the two models because of the ways in which technology integration can change how students engage with course materials, interact with one another, and learn course content. Importantly, some of these differences have been found to result in an improved learning experience for the students in the course. For example, studies have found hybrid learning environments helpful for deaf and ESL students; Long, Vignare, Rappold and Mallory (2007) found that “the online format slows the synchronous pace and allows the deaf, hard-of-hearing, and ESL students, more time to compose a response or ask a relevant question” (2). Well-designed hybrid course environments that include a range of content resources (such as videos, readings, websites, podcasts, and other content delivery mechanisms) also help students to choose the form of learning that works best for them, to learn in a self-paced format, and to learn more independently. This shift to more choice on the part of the student is one of the key benefits to learning from a hybrid course model, but it also means that instructors need to embed a clear organizational structure for learning within their course planning and design.

References


KATHRYN E. LINDER is the research director for Oregon State University Ecampus.