Teaching with Technology Statement Spring 2018: D525 Edie Hering Indiana University Bloomington

## Teaching with Technology

Distance education has been an important aspect of adult education for over a hundred years. This sort of education has provided opportunities for adults who may have been previously restricted in their attempts to access training or academic degrees. Distance education refers to any education that "occurs in a different place from teaching and as a result requires specific techniques of course design, special instructional techniques, special methods of communication, and special organizational arrangements" (Moore, 2003, p. 2). Due to the flexible nature of distance education and its "ability to adapt to technological trends" (Casey, 2008, p. 50), it is becoming an ever more popular option for many adults. Specifically, the "growth and evolution of the Internet has created a global platform that has expanded access to formal and informal resources" (Brown & Adler, 2008, p. 18); thus, creating a need for educators to reassess educational approaches and theories.

Schools of thought and strategies utilized in traditional, face-to-face learning provide a framework by which educators can develop courses and structure learning activities around. While, by no means obsolete, traditional schools of thought need to be adapted to work in an e-learning environment which has become "synonymous with distance education in recent years" (Merrill & Young, 2012, p. 25). To make the most out of the online learning environment, educators should blend "behaviorists' strategies (teach the facts), cognitive strategies (teach process and principles), and constructivist strategies (promote higher-level thinking and situational/contextual learning)" (Ally, 2008, p. 20). There are professionals who would like to see a new theory be developed for the "digital age to help guide the development of learning materials for the networked world" (Ally, 2008, p. 18). In response to the need to provide a new school of thought for the resource saturated and constantly shifting world we live in today,

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professionals have proposed connectivism. Connectivism is "the integration of principles explored by chaos, network, complexity and self-organization" (Ally, 2008, p. 19) and is where "individuals learn and work in a networked environment" (Ally, 2008, p. 34).

One of the most important aspects of connectivism is its focus on networking. Networking can have varying definitions, but for the purpose of this discussion it will be viewed under the lens of interactions. It can be argued that the most "critical component of formal education consists of interaction between and among multiple actors—human and agents included" (Anderson, 2008, p. 67). Even John Dewey, in 1916, emphasized the importance of interaction within education (Anderson, 2008, p. 55). With the knowledge of how important interactions are to education, it is important for the educator to "mix instructional technologies and strategies to help learners interact with instructional content, the instructor, and each other" (Merrill & Young, 2012, p. 22).

Connectivism provides guidelines through which educators can develop strategic online learning environments that allow for the forms of interaction mentioned above by Merrill & Young (Ally, 2008, pp. 34-35). With the "information explosion, learners must be able to unlearn old information and mental models, so they can learn current information and mental models" (Ally, 2008, p. 34). This, of course, shifts the focus from what we learn to more on how we learn (Brown & Adler, 2008, p. 18). Providing students with the opportunities to interact with various content, each other, and the instructor they will be able to filter relevant information, reach out to others globally to learn new perspectives, be self-motivated to constantly learn new things, and bridge interdisciplinary gaps (Ally, 2008, pp. 34-35). This approach shows how the behaviorist, cognitive, and constructivist schools of thought can be incorporated under the umbrella of connectivism with its support of the various forms of interaction.

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It is interesting to compare and contrast learning in a distance education setting verses a "traditional" face-to-face environment (the experience being undergraduate verses graduate degrees). There are certainly pros and cons to both learning environments; however, my primary focus of this discussion will be my experience with learning in a distance setting.

I have noticed that distance education settings are more structurally robust than previous face-to-face classes that I attended. Great, intentional, care is taken to ensure students have the resources they need to succeed. Personally, I think that courses developed with educational strategies from the behaviorist, cognitivist, constructivist, and (the newer) connectivist schools of thought provide the best opportunities for an effective online learning environment.

Behaviorally, I appreciate "explicit learning outcomes, learning materials that are sequenced appropriately, and feedback from both fellow students and professors" (Ally, 2008, pp. 20-21). Cognitively, I find information that is "chunked together to prevent overload" (Ally, 2008, p. 24), highlighted main points, and a variety of learning activities that accommodate different learning styles (Ally, 2008, p. 27) very helpful. Constructively, I enjoy gathering information on my own, working with others, learning at my own pace, and reflecting on what I have been working on and my progress through a course (Ally, 2008, pp. 30-31). Lastly, connectively, I have been able to understand how I learn so I can apply that process to gathering new information, researching multiple sources, and working with other learners to develop new perspectives (Ally, 2008, pp. 34-35).

The four schools of thought provide excellent structure, activity ideas, and guidelines for maximizing learning in a distance setting; however, I think I have benefited most from the creation of community and interactions between fellow students and instructors. According to Brown and Adler (2008), social learning is "based on the premise that our understanding of content is socially constructed through conversations about content and through grounded interactions, especially with others, around problems or actions" (p. 18). They go on to elaborate on the effectiveness of study groups and how students who are in study groups do better than students who were not and how the focus shifts from only content to the "learning activities and human interactions around the content" (p. 18). Anderson (2008) combines Lipman and Wenger's theories related to community to show how "members of a learning community both support and challenge each other, leading to effective and relevant knowledge construction" (p. 51).

Mezirow (1997) says that "we do not make transformative changes in the way we learn as long as what we learn fits comfortably in our existing frames of reference" (p. 7). It is this perspective and the community of learning (including interactions) that I find most beneficial in the distance setting. The distance itself denotes a necessity to explicitly create opportunities for students to interact with one another and have chances to develop their own community of learning. Throughout my program I have discovered how much more I get out a class if there is group work involved. One of my classes last semester stands out because we were able to utilize newer video-conferencing technology to meet "face-to-face" and discuss the materials we were covering that week. There were three of us in a group with different backgrounds. These varying perspectives were incredibly helpful when we had our group discussions. We were also able to divide up the workload and clarify any confusion around assignments. My experience last semester is evidence that "communities of learning allow learners to develop interpersonal skills and investigate tacit bodies of knowledge shared by community members as well as the formal curriculum of studies" (Anderson, 2008, p. 57).

## References

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