

Designing Online Courses: A New Approach

Abstract (100 words)

In this session, we explore a new approach for designing online courses. We begin by introducing adult learning principles we have found useful in designing online courses. You will consider how applicable these learning principles are to your students' learning. Then we will present a Change-adept Course Creation Process (CCCP) and ask you to reflect on how you might use this process to design more effective courses. We will end by discussing the connection between the adult learning principles and the CCCP as you reflect on ways to incorporate this new approach to your course design.

Three keywords:

online courses, instructional design, adult learning

Introduction

In March, the chaos brought about by the COVID-19 worldwide pandemic hit the United States and created rapid change in the way we do things. We were told to maintain social distance, stay home, and not gather in groups of more than 10. Everyone was suspected as a potential carrier. The implications of these rapid changes caught our universities unaware and without a plan to respond to these changes. Traditional classes were canceled immediately as an alternative was sought to enable students to complete their courses and for seniors to graduate on time. To save the day, in rode the white knight of online learning. Well, sort of . . . universities were shaken out of their slow, methodical approach to change. Rapid change was necessary in order to meet student needs and keep the university running. Universities recognized the need for action and issued faculty an edict, “Put your courses online immediately,” which by now we have all done in some form or fashion, for better or worse, with more or less willingness and enthusiasm. Those of us who were already teaching online may have felt somewhat smug (go ahead and admit it, at least to yourself) in our foresightedness and willingness change to an online platform.

Now that the first phase of rapid online learning adoption is behind us, we must continue to explore ways to design effective learner-centered online courses because we know that students continue to increase their participation in distance education courses (U. S. Department of Education, 2018). Even before COVID-19, colleges and universities increased online course offerings to meet the demand. But now the demand has become a necessity and, in all likelihood, the landscape of offering traditional courses will be inalterably changed. Only time will tell, but the move to online will most likely accelerate. Since business schools and

management education are a part of this change, they too will be affected and must respond to the situation.

In this session, we will explore an innovative approach to designing and revising your online course(s) to promote learning and engagement of your students. This approach is not like the traditional instructional design models that you may be familiar with, such as the Analyze Design Develop Implement and Evaluate (ADDIE) Model or the Systems Approach Model (Dick & Carey, 2004), which were created in a more stable time. The degree to which these approaches fit has been questioned (Rankin, Luzechyj, Haggis, & Gare, 2016). Such models tend to be more linear and therefore less useful when urgent action to design online courses is needed. As our VPAA said of our own rapid online course development process, “We need to create the plane while flying it.” Since we are all in the same plane, boat, or whatever your chosen metaphor, we decided to take a step back and consider the most effective design elements necessary to create an effective online course.

Theoretical Foundation and Implications for Learning and Course Design

In this section, we will discuss the basis for the adult learning design principles, the change-adept course creation process, and the link between the two. We begin with adult learning design principles that are based on the premise that learning is a complex process; course design must address cognitive, social, and emotional aspects for learning to occur; the learning process is relational and interdependent; and we recognize that our students as adult learners who require that learning be realistic, relevant, and meaningful to their life/work.

Learning: Complex and Must Address Cognitive, Social, and Emotional Aspects

Dewey’s (1916) view of the relationship between mind and society became the touchstone of our view of learning. Dewey believed that an individual’s mind is created through

social interaction and that the self and mind are inseparable. Dewey's (1916) view of learning, combined with Stacey's (2001) view of knowledge creation as a continuously constructed, interactive process of communicating (i.e., part of a complex responsive process), formed the basis of our view of learning. This view of learning was supported by more recent research, in particular, that of Immordino-Yang and Gotlieb's (2017) research-based biopsychosocial framework for affective processing. This framework describes how individuals integrate their actions and thoughts into a broader social context. In light of these findings, we achieved a more complex view of learning, where learning is based on the interaction of three aspects—cognitive, social and emotional (Immordino-Yang & Gotlieb, 2017; Lambert & Fisher, 2013; Mead 1934/2015; National Academies of Sciences, Engineering, and Medicine, 2018; National Research Council, 2000; Stacey, 2000, 2001). The Community of Inquiry literature refers to these three aspects as social presence and cognitive presence (Lambert & Fisher, 2013). Based on this view of learning, if online courses do not address the cognitive, social, and emotional aspects of students' learning in an interactive process, learning is less likely to occur. While most of us know these aspects must be engaged for learning to occur, as academics we are trained to focus on the cognitive side of knowledge and may find including the social and emotional side of learning to be potentially "messy" in an online setting. Our process offers guidance for integrating all three aspects.

The Learning Process is Relational and Interdependent

In addition to the three aspects of learning, the adult learning principles include a learning process that is relational and interdependent (Gergen & Thatchenkery, 2004; Mezirow, 1991; Stacey 2000, 2001). This process includes reflection-in-action (internal self-dialogue that occurs before responding publicly) (Mead, 1934/2015; Stacey 2000, 2001); occurs as continuous

dialogue with others and from which shared understanding emerges (Coglan & Brannick, 2014; Stacey 2001); and includes and is influenced by participants' past history and culture (Stacey, 2000, 2001; Weick, 1995, Immordino-Yang & Gotlieb, 2017). The importance of teacher presence is also important for building community in online courses (Lambert & Fisher, 2013).

Students as Adult Learners

The definition of an adult has changed many times. Most recently, neuroscientist Professor Peter Jones from Cambridge University, stated “It is a more nuanced transition that takes place over three decades . . . People are on a pathway, they’re on a trajectory” (*People Don’t Become Adults Until Their 30s*, 2019, para. 8 & 13). Viewing students as developing adults and adults requires a new approach to addressing their learning needs (andragogy), which differ significantly from children’s needs and approaches (pedagogy) (Knowles et al., 2005; NASEM, 2018). Based on Knowles et al.’s (2005) assumptions, adult learners want to know why they need to learn something, prefer to be self-directed in their learning, benefit from collaboration with others, prefer learning situations that include their life/work experiences, and are motivated to learn what is applicable to realistic life/work situations. Because individuals develop differently, inclusion and diversity must also be a part of course design.

Summary of Adult Learning Design Principles

Based on our exploration of the three aspects of learning, the learning process, and adult learning assumptions, we synthesized our findings into the following adult learning principles.

- Learning includes three aspects: cognitive, social and emotional. For learning to be effective, all three areas must be addressed.
- The learning process requires social interaction. Without the social interaction, learning does not occur.

- To engage developing adults and adults, learning must be realistic, relevant, and meaningful to their life/work situations and incorporate techniques that foster the inclusion of diverse students.

The Change-adept Course Creation Process (CCCP)

We now turn our attention to the Change-adept Course Creation Process (CCCP). Some of you may recognize elements of action research embedded in this process. The CCCP is non-linear, flexible, and iterative; reflects the complexity of learning (Rankin et al., 2016) to be used by faculty as they design their courses; and supports the adult learning principles design described above. Incorporating the complexity ideas of non-linearity, flexibility, interaction, and iterative cycles as part of the process more accurately reflects the online course design experience. The process incorporates three phases—prepare, create, and revise. See Figure 1.

Prepare begins with self-reflection on your beliefs and assumptions about learning and your students. This self-reflection influences your approach to course design elements in Prepare as well as Create and Revise. Other Prepare elements include addressing diversity and inclusion, the choice of course destination, and the essential information to include in the course.

Create includes the identification of milestones (SLOs) and their relationship to skill areas as well as to the adult learning principles. Based on the chosen milestones (SLOs) and skill areas, learning activities, appropriate resources, and types of feedback are created or selected. In addition, the creation of the course structure (overall plan, modules, and module layout) occurs.

Revise includes a plan for undertaking course revisions during a course, if necessary, and course evaluation and revision after the course is over. Because the course creation cycle is iterative, learning from current course evaluation and revision will likely inform the next cycle.

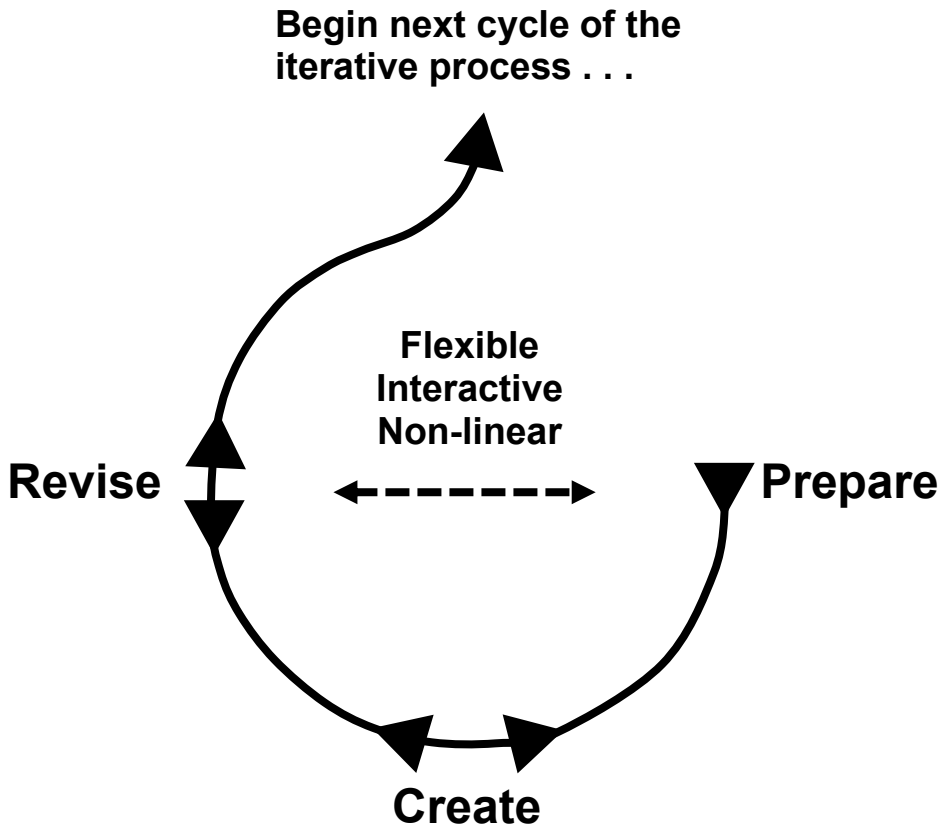


Figure 1. Change-adapted Course Creation Process for online courses

Source: Barber et al. (in press).

Although the phases are listed in order, it is important to remember that the process is flexible and non-linear. Elements from any of the phases may be revisited and changed, requiring a back and forth flexibility between and among the other phases. This non-linear, flexible process enables the course to organically emerge, leading to a more effective online course overall for the professor and the students. It is important to note that an integral part of the CCCP includes the element of collaboration (interaction) with colleagues during each phase of the cycle, which reinforces the adult learning principles for the faculty designing the online course. In addition, this process fosters a more complex view of the use of adult learning

principles in the online course design as well as more accurately reflecting the online course design process.

Over several years, we have created, utilized, and revised this process with our own online courses. Effective online courses require a clear understanding of the adult learning principles. The key to creating an effective online course for both the professor and students is a course creation process that is founded in adult learning principles, promotes interaction with colleagues, and provides an organic approach that is flexible, non-linear, and iterative. In addition, the phases, as briefly described above, also provide a check on key elements and actions to help ensure a complete and coherent online course that reflects complexity of the learning process.

Session Overview

In this session, we will begin with participants reflecting on and sharing their experiences/challenges of teaching, creating, and/or revising online courses. We will explore the adult learning principles and invite participants to consider the relevance of the adult learning principles and how they might apply to their experiences with online courses.

We will introduce the Change-adept Course Creation Process and discuss the influence of adult learning principles on the process. Participants will then consider how using the CCCP might help them address the challenges they face in designing online courses.

We will wrap up the session by reflecting on how the adult learning principles were applied during the session and summarize session learnings.

Session Description

5 min Presenter and participant introductions

- 15 min Participants reflect on their experiences/challenges teaching, designing, and/or revising online courses (Capture list of comments)
- 10 min Brief presentation of the adult learning principles
- 15 min Participants reflect on the adult learning principles, how the principles align with and/or differ from their views on learning, and how the principles apply to their experiences with online courses. (Capture reflections)
- 10 min Brief introduction of CCCP and link to the adult learning principles.
- 15 min Participants will reflect and comment on their view of using the CCCP in their course design. (Capture list of comments)
- 10 min Presenter reflection and dialogue on the session participant comments.
- 10 min Participant sharing of reflections on their learning (Capture comments), a brief session summary, questions.

References*

- Barber, C. R., McCollum, J. K., & Maboudian, W. L. (in press). *The new roadmap for creating online courses: An interactive workbook*. London: Cambridge University Press.
- Coghlan, D. & Brannick, T. (2014). *Doing action research in your own organization* (4th ed.). Los Angeles: Sage.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. New York: Macmillan.
- Dick, W., & Carey, L. (2004). *The systematic design of instruction* (6th ed.) Boston, MA: Allyn & Bacon.
- Gergen, K. J. & Thatchenkery, T. (2004). Organization science as social construction: Postmodern potentials. *Journal of Applied Behavioral Science*, 40(2), 228-249.
- Immordino-Yang, M. H., & Gotlieb, R. (2017). Embodied brains, social minds, cultural meaning: Integrating neuroscientific and educational research on social-affective development. *American Educational Research Journal*, 54(1S), 344S-367S.
- Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2005). *The adult learner: The definitive classic in adult education and human resource development* (6th ed.). Boston: Elsevier.
- Lambert, J. L. & Fisher, J. L. (2013) Community of inquiry framework: Establishing community in an online course. *Journal of Interactive Online Learning* 12(1), 1-16.
- Mead, G. H. (1934/2015). *Mind, self, & society: The definitive edition*. Chicago: The University of Chicago Press.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.
- National Academies of Sciences, Engineering, and Medicine. (2018). *How people learn II: Learners, contexts, and cultures*. Washington, DC.: The National Academies Press.
- National Research Council. (2000). *How people learn: Brain, mind, experience, and school: Expanded edition*. Washington, D.C.: National Academy Press.
- People don't become adults until their 30s, say scientists*. (2019, March 19). BBC. <https://www.bbc.com/news/newsbeat-47622059>.
- Rankin, A., Haggis, J., Luzecky, A., & Gare, C. (2016). Messy design: Organic planning for blended learning. *Journal of Learning Design*, 9(2), 14-29.
- Stacey, R. (2000). The emergence of knowledge in organizations. *Emergence*, 2(4), 23-39.

Stacey, R. D. (2001). *Complex responsive processes in organizations: Learning and knowledge creation*. New York: Routledge.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

*Note: We wish to thank our reviewers for their comments and suggestions that helped us better articulate our thoughts in our proposal. In addition, we must admit that as we dealt with the effects of the CoV-19 pandemic on our university's need for rapid design of online courses, this experience sharpened our focus and clarified our thoughts about the new design approach based on adult learning principles and course creation process described herein.