

Chapter 7

Four Steps to Promote Teacher Creativity When Making the Transition to Virtual Learning Experiences

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ABSTRACT

This chapter presents four steps for teacher creativity as part of a design-based approach to problem-solving pedagogical challenges using virtual learning environments. Building on existing practices found in creative problem-solving and design thinking methodology, these steps explore change as a journey that begins with an intent to produce an outcome that improves a specific aspect of the learning experience. Glaveanu's five-A framework provides a sociocultural perspective to support the concept of teacher creativity in the classroom, while Kaufman and Beghetto's 4-C model serves as a developmental approach to evaluating outcomes based on the impact they have in the environment. Future opportunities for study, including integrating learning analytics and situating the different stages of creative problem-solving in education, are also discussed.

INTRODUCTION

The global pandemic significantly disrupted K-12 education; students of all ages were thrust into distant learning, while parents were tasked with providing oversight during the workday. Absent procedural norms, teachers were challenged to design solutions to varying problems using new technologies. These solutions were also deployed under entirely new circumstances and have remained in flux when some schools have returned full-time. Others have maintained 100% distant learning, and some have adopted a mix-matched hybrid approach. Furthermore, teachers have had to address increased absences, unprecedented rules around social distancing, and situations where a few students are still learning remotely even while most of the class has returned to school.

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The events related to the pandemic are extreme, but in many ways, they portray preexisting disruptions already present because of the Digital Age. Teachers are routinely tasked to integrate new technology into their practice to address the pedagogical challenges of virtual learning (Kenney & Zysman, 2016; McLeod & Shareski, 2017; OECD, 2018; OECD, 2019). Those with the characteristics of early adopters may have adjusted well to this reality but those who are part of the late majority may find this aspect of their practice particularly challenging (see Rogers, 2003). Whatever category an individual may reside in, the premise is the same – today’s teaching practitioner must develop knowledge and new pedagogical reasoning around new technologies and their relationship to virtual learning experiences; Covid-19 merely accelerated this need to an extreme.

This chapter explores the connection between creative problem-solving methodology and instructional change necessitated when tasked with transitioning to virtual learning environments (VLEs). Specifically, it introduces four steps that promote a design-based approach to teacher creativity when transitioning to a VLE. These four steps take established CPS procedures and situate them inside teaching and learning using new technology.

CHANGE AND TECHNOLOGY

What constitutes a change in education has remained a prominent topic among practitioner-scholars, administrators, and educational researchers (Hancock et al., 2007; Maddux et al., 1997; Montrieux et al., 2017). Alison King’s (1993) *Sage on Stage or Guide on the Side* is one example of a change advocated toward existing methods of instruction. Within this popular article, King presents the instructor as a “Sage on the Stage” (p. 30) who facilitates the one-way transfer of information. King promotes change as a transition away from this pedagogical approach and toward a concept coined “Guide on the Side” (p. 30). With greater attention toward strategies like project-based learning, this term became a view to support approaches dedicated to student-centered instruction. Although debates continue for how much guidance is required to make these alternative approaches to learning effective (Kirschner, Sweller, & Clark, 2006; Sweller, Kirschner, & Clark, 2007), technology and teacher beliefs are influential factors when making a transition to something new. (Barak, 2017; Montrieux et al., 2017; Overbay et al., 2010; Zielinski, 2017). However, change toward an instructional approach does not necessarily require a change in the philosophical understanding of teaching and learning.

New technological tools or existing virtual learning platforms can also enhance existing practices supporting subtle changes when transitioning to a VLE. When viewed from this perspective, creativity is less about radical change and more about the discovery of new possibilities inside current constraints. This chapter is dedicated to the latter, focusing on engaging teacher creativity to improve the design of virtual learning experiences in K-12 schooling. A subtle change in a teacher’s practice can include modifying an instructional procedure that enhances a single aspect of an existing learning experience instead of a drastic change in teaching philosophy (Guskey, 2002). This change can include modifications in delivering content, feedback, or improving student engagement during a learning task. During the initial stages of the pandemic, these types of modifications took place as teachers began transitioning existing practices to VLEs to support schooling from home. Applications like Loom and Zoom offered an easy way to deliver existing in-class presentations synchronously or asynchronously. These experiences often took place with support from existing learning management systems already available or used in the classroom. Under these conditions, some practitioners would be familiar with the technology, but

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