

Chapter 2

Design Thinking and Immersive Professional Learning in Teacher Education: Cultivating Pedagogical Empathy

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ABSTRACT

Through their personalized practices, experienced educators develop two professional acts: knowing-in-action and reflecting-in-action. Novice educators grapple to understand these actions when witnessing experienced educators choose to adopt/adapt new technologies, differentiate instructional strategies, or promote new educational reforms into their classrooms. Using a design-based research approach, the authors' work suggests novice educators may require immersive professional learning opportunities to develop pedagogical empathy. Pedagogical empathy means fostering a receptiveness of other educators' professional choices (empathy) based on known theories, methods and practices of teaching and learning (pedagogy). The authors discuss their findings when introducing a human-centered design thinking process using a design challenge, collaborative prototyping, and multiple levels of reflection with experienced and novice educators. This chapter shares two years of research informed experience with educators at various stages of their careers in both western Canada and Tanzania.

INTRODUCTION

Classrooms have represented ill-structured domains where any choice “of knowledge application typically involves the simultaneous interactive involvement of multiple, wide-application conceptual structures ... and the pattern of conceptual incidence and interaction varies substantially across cases” (Spiro, Feltovich, Jacobson, & Coulson, 1995, p. 92). Simply put, educators must continually evolve their

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understandings of theory based on their prior practices and professional experiences. They personalize learning for students in their care by using their growing understanding to inform current and emerging work. Concurrently, researchers, policy makers, and administrators adopt new technologies, introduce instructional strategies, and promote innovation. Meanwhile, their students “have always faced distractions and time-wasters, ... computers and cellphones, and the constant stream of stimuli they offer/pose a profound new challenge to focusing and learning” (Richtel, 2010, para. 5). For example, with an influx of “mobile teens” (Lenhart, 2015, p. 2), experienced educators, researchers, policy makers, and administrators struggle to integrate digital technologies into their classrooms. Solutions have ranged from draconian bans on students’ use of personal technologies in formal learning spaces to open invitations to bring your own devices (BYOD) into schools grounded in digital citizenship and admiral use guidelines (Ribble, Bailey, & Ross, 2004).

Boger-Mehall (1996) suggests these “ill-structured domains are typically found in history, medicine, law, literacy interpretations, and teacher education ... [since] learners must apply what they have learned to novel and unique situations” (p. 960). Eisner (1998) reminds educators “to develop the ability to name and appreciate the different dimensions of situations and experiences, and the way they relate one to another” (p. 6). He observes those abilities are “something that needs to be worked at” as they are not simply technical exercises that can be learned or experienced once and deployed on demand. Eisner observes educators require *connoisseurship* - the art of appreciation involving the ability to see, not merely to look - to discern wise, ethical pedagogical choices amongst a myriad of policies and practices.

For novice educators, the struggle to discern wise, ethical pedagogical choices may be more difficult. Given the plethora of policies and practices being debated by in-service K-12 educators while addressing classroom challenges, how might novice educators begin to cultivate pedagogical empathy? The term *novice* is used to identify pre-service students “first [encountering] practicum experiences as part of their teacher education program and continues through student teaching assignments and the intern experience” (Steffy & Wolfe, 2001, p. 16). Steffy and Wolfe (2001) overview the nuances of professional learning across the career cycle of educators from novice to emeritus. The authors’ work suggests a research-informed immersive professional learning approach, including a human-centered design thinking process, may provide rich and varied opportunities for novice educators. Engaging in these opportunities, they practice and reflect on the skills and experiences necessary to develop their professional discernment (Crichton & Carter, 2015; Stanford University Institute of Design, 2015). Concurrently, novice educators may be encouraged to consider a plethora of policies and practices being debated by in-service K-12 educators while cultivating a pedagogical empathy. Pedagogical empathy denotes fostering a receptiveness of other educators’ professional choices (empathy) based on known theories, methods and practices of teaching and learning (pedagogy). Fostering pedagogical empathy may cultivate the *connoisseurship* required for the ill-structured domain of contemporary classrooms and provide opportunities for novice educators to reflect, individually and collectively, on their development of their ethical practices.

This chapter discusses the use of a human-centered design thinking process informed by d.School (Stanford University Institute of Design, 2015) to foster pedagogical empathy within a research-informed immersive professional learning event. Using a design-based research (DBR) approach (Brown, 1992) and underpinned by years of professional practice in teacher education, the authors have iteratively modified a human-centered design thinking process as a substantial component of a research-informed immersive professional learning approach (Crichton & Carter, 2015). Previous research into professional development informed this research design (Pegler, Kollwryn, & Crichton, 2010; Schmidt & Carbol

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