

Chapter 3

Speed Bump vs. Road Kill on the Fiber–Optic Highway: Teacher Self–Perception in the Information Age

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ABSTRACT

This chapter examines the early research on self-efficacy and beliefs of educators as it relates to the professional identity they must adopt in the information age. The overarching goal here is to challenge the wisdom associated with the super speeds at which teachers often adopt the use of multimodal media. The discussion does not debate the effectiveness of infusing technology into the classroom to guide students in the construction of knowledge; rather, it takes a position that there needs to be greater caution regulating the speed at which teachers are required to travel the Information Highway. The discussion also challenges the generalization that students are ahead of their teachers in the effective use of digital technologies, a condition that places teachers in the role of digital immigrants in the land of technology.

INTRODUCTION

In 1996, the New London Group had predicted that “effective citizenship and productive work [would] now require that we interact effectively using multiple languages, multiple Englishes, and communication patterns that more frequently cross

cultural, communication and material boundaries” (p. 64). These multiliteracies call for equally multimodal media; a combination of the visual, and the aural developed and delivered through a range of digital literacy tools. Despite of, or because of this phenomenon, many scholars claim that a gap has developed between what Prensky (2001) has

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termed *digital natives* (students born and raised in a digital world) and *digital immigrants* (educators who lived before digital technologies became a significant part of life). Journet (2007) added to this claim that “Most of us live in a world where our students are clearly far more fluent in multiple modes and media than we are. The question for our students is not ‘if’ we will move toward multimodal literacies but ‘how’ and ‘when’” (p. 190). If the questions, salient for the student, are *how* and *when*, then for educators the essential questions are *why* and, in many cases, *how fast* must I conform to the pressure to fully integrate technology into my teaching in order to be perceived to be effective as an educator.

For a reflective educator constantly working at developing a deeper understanding of professional identity this can mean making the transition to a knowledge-maker positioned among various theories and methodologies that guide modes of inquiry and pedagogy. If the claims for the gap are true, then an educator must not only overcome the challenges associated with being an *immigrant* but must also now see knowledge and learning as an endeavor in which the human and technology exist in a symbiotic relationship (Porter, 2007). This prompts the philosophic questions: How will multimodal teaching and learning and the symbiotic relationship between the teacher, as a human, and technology as object, affect beliefs, identity, and self-efficacy? How does a teacher define her role as an educator in the Information Age? At what speed can the *digital immigrant* be required to accept full citizenship?

BACKGROUND

Several issues need exploration within the context of this dichotomy, if we decide to accept it. One issue is whether the super speed at which education is embracing media as a premier example of multimodality has slowed down enough to acknowledge that many educators feel that they

have become the displaced persons (Panich, 1988) of the Knowledge Economy, and are going through what Vygotsky (1978) called *perezhivane* (lived experience). In theory, teachers could either reject or accept the influx of media technology into their world; however, since it is evident that it is here to stay, they need to be acculturated into the practices of this phenomenon to allow their skills to flourish. How do they learn to cope in their Zone of Proximal Development and to re-assert their self-efficacy as educators?

Since beliefs guide the decisions educators make and the actions they take in the classroom (Cuban, 2002; Fullan, 2001, 2003), any inquiry into teachers’ understanding of their efficacy, beliefs, and identity in the classroom should involve a concurrent investigation into the meaning of the educator’s self-efficacy, belief systems, and identity in the information age. The exploration of this issue adopted Bandura’s (1977, 1982, 1986, 1997, 2006) theory of self-efficacy as a foundation for a discussion of what represents computer self-efficacy. Since researchers have found that self-efficacy is correlated to computer use (Compeau & Higgins, 1995; Compeau, Higgins, & Huff, 1999; Hasan, 2003; Marakas, Yi & Johnson, 1998; Potosky, 2002), there is a benefit to examining educators’ self-perceptions and behavior as they engage in the implementation of digital technologies. Closely aligned with this issue is an overview of several studies related to how educators prefer to study the use of computers. Such investigations add to the field of the Philosophy of Information by redefining what it means to be a student and an educator in the Information Age; they provide, from a unique context, a definition of information, intelligence, and understanding that have become somewhat confused as multimodal media becomes part of the curriculum and pedagogy at all levels of education.

Another issue this chapter considers is the claim that *digital natives’* brains are likely physically different as a result of the digital input they received growing up (Prensky, 2001). If this is the

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