

## Chapter 11

# Identifying the Applicable Nature of Social Media as Tools for Advancing Preservice Teachers' Epistemologies

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### ABSTRACT

*The purpose of this chapter is to discuss a qualitative study that explored the use of seven social-media venues in advancing the pedagogical reasoning of preservice teachers. For this study, pedagogical reasoning is broken into six phases as defined in Shulman's (1987) Model of Pedagogical Reasoning and Action (i.e., comprehension, transformation, instruction, evaluation, reflection, and new comprehension). Shulman's model provided the framework for the research tool – a checklist, titled by the researchers as the Checklist of Social Media and Epistemological Advancement (CSMEA). This tool assisted the researchers with examining social-media venues for opportunities to advance preservice teachers' skills within the various phases of pedagogical reasoning. The social-media venues examined were Crocodoc Personal, Facebook, Pinterest, Poll Everywhere, Twitter, Weebly, and Youtube. This chapter provides an in-depth description of the study, explores the findings of the study, and discusses implications for the future.*

### INTRODUCTION

Teachers' pedagogical decisions are related to their epistemologies – their beliefs regarding the origin of knowledge and the processes involved in knowing. A teacher, who holds a well-developed

epistemology believes that knowledge is complex and uncertain, can be learned gradually through reasoning processes, and can be constructed by the learner (Schommer, 1990). This is in opposition to the less-developed notion that knowledge only resides within the teacher and is thus unchanging;

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concepts are learned quickly or not at all; learning ability is innate; and knowledge is simple, clear, and specific (Schommer, 1990). The purpose of the present study is to explore the possible uses of seven social-media venues as tools for advancing the epistemologies of preservice teachers. The seven social-media venues include Crocodoc Personal, Facebook, Pinterest, Poll Everywhere, Twitter, Weebly, and Youtube. The selected venues were analyzed with a checklist that reflects Shulman's (1987) *Model of Pedagogical Reasoning and Action*. By doing so, the researchers were able to identify possible opportunities for each venue to develop preservice teachers' epistemologies within the various phases of pedagogical reasoning. For clarity and consistency, this report refers to the university instructor as "instructor," the classroom teacher as "teacher," the preservice teacher as "preservice teacher," and the children taught by the classroom teacher or preservice teacher as "the learners."

## BACKGROUND

Decades of research have established fundamental connections between the ways in which teachers conceptualize knowledge and the ways in which they teach, particularly with respect to the instructional decisions they make (Grote-Garcia, 2009; Hillocks, 1999; Pajares, 1992; Phelps & Schillings, 2004; Risko, Roller, Cummins, Bean, Block, Anders, & Flood, 2008; Shulman, 1987; Swanson-Owens, 1986). To illustrate this fundamental connection, Grote-Garcia (2009) interviewed and observed seven preservice teachers over six weeks as they tutored young readers in a university-based reading clinic. Initially, all seven preservice teachers held the less developed belief that knowledge resides in the authority and is thus unchanging. Initially, this belief was captured in their words as they "verbally defined their duty as one in which they share their knowledge with their students" (Grote-Garcia, 2009, p. 143). Through

her observations, Grote-Garcia captured the preservice teachers "sharing their knowledge" solely through lectures and she concluded that there was a direct relationship between their beliefs and the pedagogical decisions they made.

Later in Grote-Garcia's study, the preservice teachers' pedagogies transformed alongside their beliefs. For example, Grote-Garcia reported that five of the seven preservice teachers developed the idea that knowledge can be constructed by the learner over time. These preservice teachers were observed as they activated the learners' prior knowledge and assisted the learners in making connections to the texts. Similar findings regarding the transformation of pedagogy and beliefs have also been reported in the works of Hillocks (1999), Pajares, (1992), Risko et al. (2008), Shulman (1987), and Swanson-Owens (1986).

Additional research has also documented that teachers' epistemologies seem to develop through the act of teaching (Grote-Garcia, 2009; Shulman, 1987). In fact, Shulman (1987) suggested that an individual teacher goes through a process of transformation in developing the ability to reason about pedagogy. Through interviews, observations, and examinations of materials, Shulman explored the transformation that teachers experience when transitioning from understanding material for themselves, to being able to expound subject matter to learners. From his research, Shulman created the *Model of Pedagogical Reasoning and Action*. This model consists of six activities (i.e., comprehension, transformation, instruction, evaluation, reflection, and new comprehension) that are not meant to represent a set of fixed stages, phases, or steps. Explanations and examples of each activity are provided in Table 1.

The literature reveals that teachers' epistemologies develop through actual acts of teaching (Shulman, 1987), and this is also true for preservice teachers (Grote-Garcia, 2009). However, providing such opportunities can be challenging for teacher preparation programs. In part, programs may struggle with continuity of mentoring rela-

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