

EXAMINING THE RELATIONSHIP BETWEEN PRESERVICE TEACHERS'
EPISTEMOLOGICAL BELIEFS AND CONCEPTIONS OF TEACHER
IDENTITY WITHIN THE BOUNDARIES OF TEACHER EDUCATION
DISCOURSE COMMUNITIES

by

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DEDICATION

This thesis is dedicated to my children, Annabelle and Joshua.
Your inquisitive minds inspire me; your patient and loving support made this possible.

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ABSTRACT

A teacher's epistemological beliefs define the boundaries of his or her worldview and conceptualization of teacher identity. It is, therefore, essential that teacher educators support the development of sophisticated epistemological beliefs among preservice teachers. Prior studies have suggested that epistemic development may be hindered by emphasis placed on the performance of a socially constructed normative teacher identity within teacher preparation programs. This phenomenological study, which examines the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in their teacher education program, aims to provide insight into how teacher preparation programs may better support the development of more sophisticated epistemological beliefs among preservice teachers. Data was collected from 40 preservice teachers at Montana State University using a survey instrument created for this study and interpreted through a process of discourse analysis. The individual preservice teachers studied expressed epistemological beliefs and conceptions of teacher identity that were contradictory without ever acknowledging or attempting to explain these contradictions. This suggests that the participants may not have actually developed their own beliefs through a process of consideration or inquiry, but instead have received them during their time in the teacher preparation program. The results of this study suggest that interventions focused on reflection upon theory and practice will continue to be ineffective as long as the preservice teachers continue to reflect upon these ideas through the lens of undeveloped epistemological beliefs situated within the context of a received teacher identity.

INTRODUCTION

Overview

Many studies have been conducted investigating college students' beliefs about the nature of knowledge and knowledge acquisition, referred to as epistemological beliefs (Hofer & Pintrich, 1997; Schommer-Aikins, 2004; Schommer, 1994). Recently, research investigating epistemological beliefs has been extended to the beliefs of preservice teachers (Cheng et. al., 2009; Fang, 1996; Fisher & Rush, 2008; Schommer-Adkins, 2004). The question driving much of this research is whether, and to what extent, teacher education programs affect the development of sophisticated epistemological beliefs among preservice teachers. These studies define "sophisticated epistemological beliefs" as those beliefs that are essential for constructing new understanding through a process of interpreting experience, as per constructivist learning theory (Cheng, et. al., 2009). Cheng (2005) found that, although most of preservice teachers who had sophisticated epistemological beliefs were likely to believe in a constructivist approach to teaching, these beliefs were not always reflected when they described their teaching philosophies or discussed instructional practices.

Because a teacher's epistemological beliefs define the boundaries of his or her worldview, including his or her conceptualization of teacher identity, it is essential that teacher educators support the development of sophisticated epistemological beliefs among preservice teachers (Fang, 1996; Schommer-Aikins, 2004). Although questions of knowledge lie at the heart of teaching, the epistemic development of preservice

teachers is rarely addressed within teacher education programs (Nespor, 1987). The development of mature epistemological beliefs is essential if novice teachers are to become reflective practitioners capable of fostering critical competencies among K-8 students (Fisher & Rush, 2008). The question of whether sophisticated epistemological beliefs are developed within teacher education programs has been the subject of many recent studies. A recent study by Torff (2005) that investigated preservice teachers' beliefs about critical thinking found that, upon entry to teacher education programs, students strongly believed in encouraging critical thinking. Those students who were nearing completion of the program, however, were less likely to hold such strong beliefs about the importance of encouraging critical thinking in their future classrooms (Cheng et al., 2009). This suggests that while conceptual change does occur within teacher education programs, it may not be in the desired direction; some students may become more, rather than less, resistant to the development of sophisticated epistemological beliefs over time.

Pajares (1992) and Alsup (2006) found that preservice teachers' beliefs are difficult to change, but that change is possible if these beliefs are repeatedly challenged through the creation of cognitive dissonance as part of the teacher education program. Pajares (1992) proposed that beliefs about the nature of knowledge and what it means to be a teacher are formed concurrently over the course of many years of exposure to educational practices. He found that, since these beliefs about knowledge and teacher identity are interwoven components of a central belief structure that began to develop when preservice teachers were very young, they are particularly resistant to change.

Bruner (1996) used the term “folk pedagogies” to describe the beliefs that preservice teachers develop over the course of their K-12 education and hold upon entry to teacher preparation programs, while Britzman (2003) and Diniz-Pereira (2003) refer to these beliefs as “myths.”

Previous research has identified two “myths”, or elements of normative teacher identity (Alsup, 2006; Britzman, 1993; Lortie, 1975) that may help to explain preservice teachers’ resistance to epistemic development. Preservice teachers’ beliefs that teachers are naturally suited for the profession, and that these “naturals” become experts through experience, may encourage preservice teachers to resist potentially transformative discourse offered by teacher educators and take refuge in experiences that reinforce their valued beliefs concerning the teachers’ identity rather than challenging them (Britzman, 1986; Diniz-Pereira, 2003). Another aspect of the normative teacher identity is the belief that the teacher is a “powerful expert.” The belief that power is retained in the hands of the teacher serves to restrict the discourse in the classroom to the teacher’s level of expertise and depth of preparation and allows preservice teachers to retain the epistemological belief that knowledge is conferred by authority (Brownlee, 2001). When these beliefs are held, considerations of individual teachers’ epistemic development and epistemological beliefs can all be removed from the discourse.

Prior studies have shown that epistemic development may be hindered by emphasis placed on the performance of a socially constructed normative teacher identity within teacher preparation programs (Alsup, 2006). Preservice teachers’ conceptions of teacher identity are constructed and reconstructed through the discursive practices of all

participants in teacher preparation discourse communities (Zembylas, 2003).

Investigating the relationship between preservice teachers' epistemological beliefs and those held regarding normative teacher identity may provide clues to how teacher preparation programs may better support the development of more sophisticated epistemological beliefs among preservice teachers. This exploration of the relationship between preservice teachers' constructions of a normative teacher identity and their epistemological beliefs will contribute to the creation of teacher preparation curriculum that expands, rather than restricts, the boundaries of discourse communities in teacher education programs. Expansion of the discursive boundaries of teacher education is essential in order for the pedagogical innovation necessary for improved student outcomes in K-12 education to occur.

Statement of the Problem

Prior studies have suggested that the development of sophisticated epistemological beliefs does not occur within teacher preparation programs, and may actually be hindered by practices that reward and reinforce the performance of a socially constructed normative teacher (Alsup, 2006; Nespore, 1987). Because a teacher's epistemological beliefs define the way he or she sees the world, including his or her understanding of what it means to be a teacher, it is crucial that teacher education programs support the development of sophisticated epistemological beliefs among preservice teachers (Fang, 1996; Schommer-Aikins, 2004). Examining the relationship between preservice teachers' epistemological beliefs and their beliefs regarding teacher

identity may lead to pedagogical innovations within teacher preparation programs that may better support the development of mature epistemological beliefs among preservice teachers.

This research project explores the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher preparation program. Consideration of the dynamic relationship that exists between these beliefs may assist teacher educators in preparing future teachers who hold more sophisticated epistemological beliefs.

There are several questions that must be addressed in the process of investigating the complex relationship between these beliefs. In order to understand the relationship between the epistemological beliefs and beliefs regarding teacher identity, it is first necessary to identify, describe, and compare the epistemological beliefs held by preservice teachers at different points in the teacher preparation program. It is also necessary to similarly investigate beliefs regarding normative teacher identity held by preservice teachers at these same points in the program. After these categories of belief have been identified, the relationship between these beliefs can then be explicated.

Statement of the Purpose

The purpose of this phenomenological study is to examine the relationship between the epistemological beliefs and beliefs regarding normative teacher identity held by preservice teachers at Montana State University. The research explores the relationship between these two longstanding categories of belief (Pajares, 1992), and to

compare the beliefs held by preservice teachers at different points of the teacher education program. The current study examines the beliefs of students belonging to two groups: elementary education majors in their first year and elementary education majors enrolled in a social studies methods course who are scheduled to student teach in less than one year.

Research Questions

This study was guided by the following research questions:

- (1) What are the epistemological beliefs of preservice teachers at different points in the teacher education program?
- (2) What beliefs regarding normative teacher identity do preservice teachers hold at different points in the teacher education program?
- (3) What is the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher education program?

Significance of the Study

Previous research has identified the epistemological beliefs and constructions of identity held by preservice teachers (Britzman, 2003; Cheng et. al., 2009; Fisher & Rush, 2008; Schommer-Adkins, 2004), yet the impact of the intersection of these beliefs on preservice teachers' epistemological development and subsequent classroom practice remains unexplored. For example, Pajares (1992) found that preservice teachers reject

attempts to challenge their epistemological beliefs because those attempts also threaten centrally held beliefs about their identity as “teacher.” Little research, however, has been conducted exploring the relationship between these categories of belief. Further research is needed to develop teacher educators’ understanding of how the dynamic relationship between these beliefs plays out in teacher education discourse communities.

Understanding the nature of this relationship could play an instrumental role in developing teacher education curriculum and pedagogy that will help to create the dissonance required for conceptual change and epistemological development. Recent research suggests that the epistemological beliefs held by teachers exert a pervasive influence over their instructional practices and the learning outcomes of their students (Fang, 1996; Schommer-Aikins, 2004). For this reason, it is essential that the development of these beliefs is addressed throughout teacher education programs.

REVIEW OF RELATED LITERATURE

The literature reviewed for this study draws from two areas of previous research. The first section of this review is focused on epistemology and epistemological beliefs. The second section is devoted to a consideration of literature concerning the social construction of a normative teacher identity. This chapter concludes with a discussion of the development of epistemological and identity beliefs within teacher preparation programs.

Recent studies have suggested that considerations of epistemology within education research have been diluted as the term “epistemological beliefs” has been expanded to include questions of knowledge acquisition that are not, in fact, epistemic in nature (DeBacker, Crowson, Beesley, Thoma, & Hestevold, 2008). In order to clarify the distinctions between epistemological beliefs regarding the nature of knowledge and beliefs regarding knowledge acquisition, traditional and contemporary considerations of epistemology found in the extant literature outside the field of education are discussed. The theoretical framework used by philosophers to consider problems of knowledge will then be applied to a discussion of studies of the epistemologies and epistemological beliefs conducted by education researchers.

Philosophical Considerations of Epistemology

Defining Epistemology

Epistemology is defined as both a branch of philosophy focused on questions of human knowledge and the study of knowledge itself (Williams, 2001; Steup, 2005). Scholars who study knowledge are concerned with identifying the “the necessary and sufficient conditions of knowledge,” examining how and from what sources knowledge obtains, considering the structure of knowledge, and contemplating the limits of what can be known (Steup, 2005). Those who study epistemology are also concerned with questions of justified belief, including what it means for a belief to be justified and whether justification occurs within the believer’s mind or externally (Williams, 2001). In short, epistemology is the study of how knowledge is created and how transactions of knowledge occur (Steup, 2005).

The Classical Picture of Knowledge

Philosophers have long attempted to answer questions concerning the nature, sources, and limits of human knowledge (Muis, Bendixen, & Haerle, 2006.) In *Theaetetus*, Plato identifies three knowledge-types: knowledge obtained through perception, knowledge obtained through justified true belief, and knowledge obtained through a combination of justified true belief and rational discourse (Chappell, 2006). In this work, Plato refutes relativism as perception without either justification or *logos*, a conception of knowing that renders the relativist incapable of asserting or refuting any claims of truth at all (Long, 2004). Plato also discusses knowledge in *Republic*. In the

“Allegory of the Cave,” he asserts that, without reason and self-awareness, perception and justified true belief can lead to the acceptance of false belief as knowledge (2006). Plato’s assertion that reason is necessary for knowledge to obtain marks the beginning of the philosophical tradition of rationalism, a theory of knowledge “in which the criterion of the truth is not sensory but intellectual and deductive” (Bourke, 1962).

Descartes distinguishes knowledge from belief, which he refers to as conviction, in terms of doubt. As a result of his consideration of dreams that seem as real as conscious experiences perceived through the senses, Descartes deduces that the rational pursuit of truth requires the thinker to doubt every belief about the mind-independent world. Descartes writes that there is conviction when there remains reasonable doubt, but knowledge obtains when conviction is based upon reason that cannot be refuted by stronger reason (Newman, 2005). He asserts that reason alone determines knowledge, and that justification can occur independently of the senses (Cottingham, 1992). Descartes presents the subjectivity of the individual, however, as if an individual’s conscious thoughts and experiences could somehow be a complete reality existing independently of all other realities, even the reality of the objects of the thoughts and experiences that comprise it (Schwyzer, 1997).

In contrast to Descartes, who argues that knowledge obtains through the application of reasonable doubt to classical reason, Hume asserts that true knowledge obtains empirically, through observation and sensation (Newman, 2005). He proposes that justified true belief is not knowledge, but that through the application of doubt to perception, knowledge obtains. Kant later attacked Hume’s skeptical empiricism,

asserting that empirical knowledge does not lead to substantial knowledge, but that instead, all knowledge is created through individual or social orientation (Kant, 1998). In *Critique of Pure Reason*, Kant (1998) states, “although all our knowledge begins with experience... it does not follow that it arises from experience” (p. 41). According to Kant (1998), experience stimulates knowledge, but cannot constitute it, since “even into our experiences there enter modes of knowledge which must have their origin *a priori*, and which perhaps serve only to give coherence to our sense-representations” (p. 43). This *a priori* knowledge then, makes up the cognitive machinery through which experience and sensation are understood. Kant does not assert, however, that such an experience would be possible if its objects were not really as they are perceived (Schwyzer, 1997).

Kant further refutes empiricism through a discussion of analytic and synthetic knowledge. According to Kant, an analytic proposition is true by virtue of the fact that its predicate concept is contained in its subject concept. In Kant’s (1998) example, “all bodies are extended,” the concept of “extension,” or taking up space, is contained within the concept of “body” (p. 10). By definition, all bodies take up space. When making judgments regarding analytic propositions, Kant (1998) observes, “in framing the judgment, I must not go outside my concept, there is no need to appeal to the testimony of experience in its support” (p. 11). Some things, therefore, can be known without experience. Although Kant argues that mind-independent reality presupposes the reality of the inner life of the individual and that subjectivity is impossible without objectivity, his assertion that all knowledge obtains, to some degree or another, independent of

experience and dependent upon the *a priori* workings of the human mind, may have laid the foundations of philosophical constructivism (Schwyzer, 1997).

Constructivist Epistemology

Constructivists hold that knowledge about the mind-independent world is constructed by the individual mind and is *relative* to cultural, social, historical frameworks and individual circumstances (Gillett, 1998). Rorty (1979) refuted the Enlightenment and post-Enlightenment views about the nature of knowledge in his book *Philosophy and the Mirror of Nature* (1979), arguing that the considerations of epistemology all hinge upon the belief that machinery of the human mind exists to accurately represent, or “mirror,” the mind-independent world. According to Rorty (1979), if we do not accept as fact the proposition that the mind works to mirror reality, then the traditional questions of truth and justification are moot. Rorty (1979) encapsulates constructivism’s pragmatist thesis when he states, “we understand knowledge when we understand the social justification of belief, and thus have no need to view it as accuracy of representation” (p. 170).

Constructivists, who by nature also hold relativist beliefs about knowledge, do not just maintain that beliefs are constructed by the mind, but also that the very existence of the thing that the belief is about, i.e. the referent, is constructed by the mind as well (Boghossian, 2006). According to constructivist-relativists, since individuals are constructing both reality and their knowledge of it through unique combinations of various frameworks, both a belief and its negation can both be true relative to different frameworks (Gillett, 1998). It is this conclusion that underlies Rorty’s (1979) critique of

modern epistemology. In a reality in which everyone creates their own equally valid socially contingent truths, there is no place for the application of reason or evidence to questions of knowledge.

In *Fear of Knowledge*, Boghossian (2006) refutes constructivism and relativism. When setting forth a framework for his argument, he compares the theses underlying constructivism with those of the classical picture of knowledge. The framework illustrated in Table 1 will be used throughout the next section of this literature review as the findings and epistemological underpinnings of prior studies concerning epistemological belief are examined.

Table 1. Comparison of Objectivist and Constructivist Epistemologies

	Facts	Justification	Rational Explanation
Objectivism	The world that we seek to understand is mind-independent.	Whether or not evidence or reason justifies a belief is independent of the contingent needs of a discourse community.	Under certain conditions, evidence alone can be used to explain a belief.
Constructivism	All facts are socially constructed and reflect our contingent needs.	Justification is dependent upon the contingent needs of a discourse community.	Evidence is never sufficient to explain a belief. Contingent needs and interests must be considered.

Since constructivists hold that truths are constructed by and held within individuals and social groups, and since in the context of education research there may be a contingent need to conceptualize questions of knowledge and questions of knowing as inseparable, the tendency of education research concerning epistemological beliefs to conflate epistemic beliefs with beliefs regarding knowledge acquisition is hardly surprising. This departure from the discussion of universal questions and ideas of

knowledge and toward discussion of the contingent beliefs held by individuals within social contexts is evident in education research concerning epistemological beliefs.

Studying Epistemological Beliefs in Education

Education researchers refer to individuals' beliefs about knowledge and justification as epistemological beliefs (Muis, Bendixen, & Haerle, 2006; Hofer & Pintrich, 1997). Debacker and her colleagues (2008) found that some of the categories of epistemological belief recently developed and explored by education researchers are not epistemic in nature, but are instead questions of knowledge acquisition. Both Debacker's (2008) findings and the framework used by Boghossian (2006) to compare classical and constructivist epistemologies are helpful in the examination of studies of epistemological beliefs to follow.

The Epistemological Beliefs of College Students

Though individuals' conceptions of knowing and knowledge have been a consideration of philosophers for more than 2500 years, the first longitudinal phenomenological study of the epistemological beliefs was not conducted until 1970 (Perry, 1970). This study examined the beliefs of male Harvard students and identified four categories of epistemological positions: dualism, multiplism, relativism, and commitment. Perry (1970) found that as individuals progressed through these views, they began to move away from believing that absolute truths could be conveyed to them by authorities and toward a belief that knowledge is multiple and flexible, and is actively constructed through a process of interpretation and evaluation within a social context. In

Perry's (1970) scheme, illustrated in Table 2, the pinnacle of one's intellectual development is commitment to constructivism.

Table 2. Perry's Scheme of Intellectual and Ethical Development

Categories of Position	Facts	Justification
Dualism or Received Knowledge	are either true or untrue	is authority-based
Multiplicity or Subjective Knowledge	are multiple and often conflicting	is internal and subjective
Relativism or Procedural Knowledge	are evaluated empathetically or empirically	is based on evidence evaluated within the context of contingent need
Commitment or Constructed Knowledge	are constructed by the individual through a process of integrating received knowledge with experience and reason	is based on the application of reason to evidence within the context of contingent need

Later studies focused on the epistemological beliefs of women. For example, Magolda (1992) described epistemological positions that were similar to those theorized by Perry (absolute, transitional, independent, and contextual), but found differences among genders. Magolda (1992) found that women's ways of knowing were relational, and differed from those of men by being "more open, flexible, connected, and responsive" (Brownlee, Purdie, & Boulton, 2001). Despite these differences, the positions described by Magolda (1992) aligned with those of Perry and shared a progressive, graduated developmental scheme.

Schommer (1990) presented a model of personal epistemology that describes individuals' beliefs regarding aspects of knowledge, rather than a series of stages of development. Schommer's (1990) dimensions of epistemological beliefs include:

- (1) Beliefs regarding the source of knowledge, called Omniscient Authority

- (2) Beliefs regarding the certainty of knowledge, called Certain Knowledge
- (3) Beliefs regarding the structure of knowledge, called Simple Knowledge
- (4) Beliefs regarding the speed at which learning takes place, called Quick Learning
- (5) Beliefs regarding the stability of knowledge, called Innate Ability

Schommer (1990) theorized that individuals may simultaneously hold naïve and sophisticated beliefs about knowledge and that these beliefs are held across domains. DeBacker (2008) found, however, that Schommer's instrument, the Epistemological Questionnaire, "suffered from insurmountable psychometric problems" (p. 302), calling into question the findings of the numerous studies conducted using this instrument. In later studies, Schommer-Adkins (2004) separated beliefs about knowing and learning (Innate Ability, Quick Learning) from epistemic beliefs (Simple Knowledge, Certain Knowledge, Omniscient Authority). In order to avoid conflating the epistemological beliefs of the participants with their beliefs about learning, the findings of Schommer's 1990 study that pertain to the nature of knowledge, rather than those pertaining to knowledge acquisition, will inform the interpretation of data collected in this study.

Recent studies found that epistemological beliefs may not be consistent across domains. Hofer (2000) found that individuals did not hold the same beliefs about knowledge in a social science field, for instance, psychology, as they did when considering science knowledge. Palmer and Marra (2004) found that college students' epistemological beliefs develop differently in the humanities than in the sciences. These differences are especially salient when developing pedagogical models for elementary teacher education, since faculty members are expected not only to advance students'

knowledge across disciplines, but to prepare them to teach children across disciplines, as well.

The Development of Knowledge Beliefs in Preservice Teachers

Since studies have shown that epistemological beliefs exert a pervasive and unconscious influence over teaching and learning outcomes (Fang, 1996; Schommer-Aikins, 2004), it is imperative that these beliefs are addressed in teacher education programs. Researchers have described the tendency of preservice teachers who have naïve epistemic beliefs to believe that knowledge is absolute and conferred upon learners by authorities (Brownlee, 2001). In teacher education programs in which faculty-researchers and veteran practitioners work together to prepare preservice teachers for the classroom, it is essential to understand how the epistemological beliefs of these instructors shape their instructional practices, as well as how, in the face of differing epistemological worldviews, preservice teachers with dualistic or absolute epistemic beliefs designate authority and make decisions regarding truth-value.

Fisher and Rush (2008) found that other preservice teachers express more sophisticated beliefs about the nature of knowledge, but still tend to believe that knowledge exists as a separate entity and is not constructed actively by the learner within a social context. Embedded within these findings, as well as the findings of other education researchers (Cheng et. al, 2009; Bondy, 2007; Schommer-Adkins, 2004; Brownlee, 2001), is the belief held by education researchers that the ultimate goal of efforts to encourage epistemological development within preservice teachers should be the adoption of constructivist epistemologies and learning models. Fisher and Rush

(2008) did not find, however, that teacher education programs are achieving this goal. Instead, they reported that preservice teachers' belief that knowledge is not actively constructed in a social context may cause these students to attribute diminished valency to cooperative learning experiences within the teacher education courses meant to empower the learner and expand the boundaries of discourse beyond the limits of their own experiences.

Because individual teacher epistemologies determine instructional practices and shape the learning experiences of elementary students (Bondy, et. al, 2007), the pedagogical practices of teacher educators should be transformative opportunities designed to address resistance to epistemic growth. Development of these transformative pedagogical practices will benefit from consideration of the epistemological foundations underlying measurement of epistemic development of preservice teachers. Prior studies of preservice teachers' epistemological beliefs are based upon theoretical frameworks that assume that commitment to a constructivist epistemic position represents the attainment of epistemological sophistication, even though whether or not constructivism is, in fact, a sophisticated epistemic position remains a topic of vigorous debate among epistemologists (Boghossian, 2005; Schwyzer, 1997). An examination of the epistemological beliefs of preservice teachers that compares these beliefs to the epistemologies recognized by epistemologists may illuminate these beliefs in a way that is not overly influenced by the predominance of constructivist learning theory in teacher education. Considering the epistemological beliefs of preservice teachers through the lens of philosophical epistemology may contribute to the expansion of the discourses of

teacher educators, making possible the development of innovative pedagogical practices that better address the epistemic growth of preservice teachers.

Fisher and Rush (2008) have described models of instruction for the teacher education classroom that create learning environments designed to disrupt the tendency of preservice teachers to approach learning as “passive receptors of knowledge.” According to Brownlee (2001), epistemological beliefs are central in nature and are best changed through explicit reflection and focused intervention. Bondy and her colleagues (2007) found that when teacher educators create classroom contexts in which multiple perspectives were made readily apparent, preservice teachers readily adapted their epistemic worldviews to accommodate multiplicities of knowledge. These researchers also found, however, that teacher candidates placed the most value upon experiences that they felt were directly and concretely applicable to their future teaching practice. Establishing a common discourse regarding the impact of individual epistemologies on instructional practices in the teacher education classroom may be most effective if faculty and supervisory staff can relate the relationship between epistemological beliefs and the effectiveness of instructional practice visibly to students as they reflect upon their field experiences (Bondy et. al., 2007).

Though researchers have suggested changes to teacher preparation coursework that may provide students with opportunities to develop more sophisticated epistemological beliefs, such as increasing assignments that require reflection upon both theory and practice, studies suggest that currently, the epistemological beliefs of most preservice teachers remain naïve in nature throughout their time in teacher education

programs (Brownlee, 2001; Fisher & Rush, 2008). If changing the epistemological beliefs of teacher candidates requires explicit interventions that are not currently being implemented in teacher education programs, what beliefs are being developed in the context of these programs (Brownlee, 2001)?

While research pertaining to the epistemological beliefs of college students and preservice teachers has offered a valuable window into the epistemic development that does and does not take place in teacher preparation programs, these domain-specific findings have not been situated in the context of more than two thousand years of philosophical consideration of epistemology. It is important not only to understand how preservice teachers conceptualize knowledge and how teacher educators can help these students develop more sophisticated beliefs, but to consider why teacher education discourses have been restricted to exclude opportunities for preservice teachers to consider questions of knowledge and question why they conceptualize knowledge the way they do.

The Construction of Normative Teacher Identity

As we consider the concepts and questions that exist outside of the current discursive boundaries of teacher education, it is necessary to take a closer look at the ideas and questions that meet the “conditions for existence” within teacher education discourses (Foucault, 1972, p.38). Since the boundaries of an individual’s worldview are defined by language, it is essential that not only consider what is missing from the conversation, but to also view what is included with a more critical eye. Research in the area of teacher identity formation may offer insight into questions of how the boundaries

of teacher education discourses are formed and re-formed, since conceptions of both knowledge and identity are part of the same language-bound belief structure through which the individual understands both the self and the world (Pajares, 1992; Schommer, 1990).

Socially Constructed Teacher Identity

Researchers challenging ontological explanations of teacher identity formation have focused on the construction of this identity within broader social and historical contexts (Zembylas, 2003a). It has been proposed that, in these historically contingent contexts, novice teachers assumed a normative teacher identity through a process of socialization (Lortie, 1975; Tyack & Tobin, 1994; Diniz- Pereira, 2003). Lortie (1975) identified three aspects of teach identity rooted in the “cellular pattern” of American public schooling and described how they contribute to the replication of traditional teacher identity through novice teachers:

(1) Conservatism. Lortie argued that the propensity for female teachers, who decided to join the profession before entering college, to act to conserve the received “traditional” normative teacher identity is attributed to the likelihood that they are “living out identification with figures from the past” (p. 54).

(2) Individualism. Lortie (1975) suggested that physical isolation and “sink-or-swim” induction experiences force novice teachers to cope with the demands of the profession on their own and lead to the belief that survival equates success. Through this process, beliefs that teachers are self-made and achieve success because they are naturally suited to the profession are reinforced.

(3) Presentism. Lortie (1975) found that teachers operate in the moment and fail to recognize that an underlying conceptual framework is required for long-term instructional planning. As a result of the perception that “every class is different,” and that the teacher can only respond to the unique dynamic of each group of students, teachers do not invest time and effort in using inquiry to develop a conceptual framework to inform their work. In combination with individualism, this aspect of the teacher identity prevents teachers from collaborating to create pedagogical innovation.

Although one-room schoolhouses were eventually replaced by collections of self-contained elementary classrooms in most parts of the country, teachers still conduct instruction in isolation from other adults (Diniz-Pereira, 2003). The cellular structure used to organize efforts to educate America’s children was conserved even in the face of rapid urbanization, and along with it, elementary students’ experienced teachers as heroic individuals charged with presenting knowledge that they, in turn, are charged with receiving. Here, in these isolated classrooms led by a sole knowledge authority, future elementary teachers’ understandings of both what it means to teach and what it means to know become inextricably intertwined (Nespor, 1987; Pajares, 1992; Diniz-Pereira, 2003). The persistence of this pattern of school organization has been credited for allowing the normative teacher identity to remain remarkably stable, even in within the context of broader cultural and social change (Lortie, 1975).

The Creation of Teacher Identity
Within and Across Discourse Communities

More recently, assumptions that teachers were the simply the products of environment and a process of socialization have been called into question by scholars examining teacher education through a poststructuralist lens. Britzman (2003) criticized prior theories of the socialization of the teacher for not accounting for the position of teacher as both subject and object within the discourses that create and recreate teacher identity. Foucault (1972) defined discourses as the boundaries within which expressions of language can take place. The discursive boundaries of an institution, such as “Education,” restrict and define which acts of language one can regularly commit and still maintain membership in that discourse community (Foucault, 1972; Alsup, 2006). In *Practice Makes Practice*, Britzman (2003) proposed that teachers are made through the performance of discursive practices that create and reinvent a teacher identity based upon pervasive cultural myths. There are three myths that make it possible for teachers to accept without question contradictory discourses on authority, knowledge and identity (Britzman, 2003; Diniz-Pereira, 2003).

The first myth, “everything depends on the teacher,” constructs the teacher as the essential component in a conceptualization of student learning in which teachers are the transmitters of knowledge. In the context of the teacher’s heroic isolation, all aspects of instruction exist within the teacher’s domain. This belief represents contingent knowledge that has been both constructed and received within multiple professional and academic discourse communities in order to meet a social need (Boghossian, 2006). The belief that all that needs to be learned in any elementary classroom can be held within a

teacher's domain is epistemological naïveté, since such a belief would hold up to neither objectivist or empirical examination. By restricting discursive boundaries to preclude examination of this centrally held belief, an essential element of normative teacher identity is maintained.

When the second myth, “the teacher is the expert,” is examined in concert with the previous myth, the discursive boundaries of the classroom are reduced to the limits of the teachers' knowledge. Here, an “expert” can be understood not as one who holds a great deal of knowledge, but as one who holds the power of moral authority and technical competence (Welker, 1992). When teaching is understood according to these myths, there is no need for teachers or their students to pursue knowledge that exists outside of the boundaries of what the teacher knows or receives from authority (Britzman, 2003). Such beliefs position both teacher and student objectively and prevent the expansion of both classroom and professional discourses, trapping both teachers and their students in a closed circuit of knowledge reception and transmission (Welker, 1992). According to Britzman (2003), the belief that teachers are experts is naturalized within and among preservice teachers through their own experiences in K-12 and university education.

The third myth, “teachers are self-made,” is often expressed by teachers and preservice teachers as they describe themselves or others as “born to teach.” By constructing the teacher as a “natural,” pedagogy is reduced to “teaching style,” creating the belief that expert teaching cannot be taught, and therefore need not be learned (Britzman, 2003; Diniz-Pereira, 2003). In combination, it would seem that these myths would have the power to render teacher education irrelevant in the minds of preservice

teachers. If teachers are naturals, and naturally expert in both content and pedagogy, little remains to be done in teacher education programs but the performance and replication of the cultural myths that construct and reconstruct the normative teacher persona.

The Influence of Teacher Preparation Programs on Preservice Teachers' Beliefs

The majority of preservice teachers arrive at college having had thirteen years of schooling in which learning was limited to negotiating within the discursive boundaries that shape and contain constructions of teacher identity and epistemological beliefs in what Lortie (1975) called “the apprenticeship of observation” (Nespor, 1987; McDiarmid, 1990; Pajares, 1992; Chong & Low, 2009). Beliefs about teaching are firmly established by the time a teacher candidate enrolls in a teacher education program (Pajares, 1992). While in these programs, students are introduced to learning theories that are inconsistent with their preexisting beliefs about knowledge and teaching, but research has shown that these programs have little impact on preservice teacher beliefs regarding either knowledge *or* identity (Wideen, Mayer-Smith, & Moon, 1998). These findings are supported by Schommer (1990), who conducted two explorations of the relationship between college students' epistemological beliefs and comprehension. She found that a belief held by a student will distort their understanding of information in order to maintain the integrity of the belief (Schommer, 1990; Pajares, 1992).

From the time of their acceptance into teacher education programs, teacher candidates are preoccupied with assuming the identity of “teacher” (Chong & Low,

2009). Throughout teacher education programs, preservice teachers are inundated with discourses of authority and knowledge that are intertwined with their conceptions of the teacher-self. According to Britzman (2003), “Discourse positions the subject in a dual way: in relation to what and how something is said and in relation to a community that makes particular practices possible and others unavailable” (p. 39). This positioning has the power to create and recreate the boundaries of preservice teachers’ conceptions of both knowledge and self (Larson & Phillips, 2005).

The Shifting Discursive Boundaries of Teacher Education

The formation of identity is “a dynamic process of intersubjective discourses, experiences, and emotions: all of these change over time as discourses change, constantly providing new configurations” (Zembylas, 2003, p. 221). The identities of preservice teachers are both subject and object of discourses that conflict with and reinforce one another. Discourses of changing professional demands and increased accountability, discourses of theory and method that are experienced within teacher preparation classrooms, and discourses bounded by the language of practice and experience that are formed within field placement experiences all create contexts within which shifting identities emerge. While experiencing these discourses in isolation from one another, preservice teachers may simply perform a series of variations upon teacher identity, shifting identities as they move between discourses. Alsop (2006) found that creating discursive multiplicities within contexts creates opportunities for identity dissonance that may lead to pedagogical and political change, rather than the acceptance or rejection of the self as suited to assume a normative teacher identity.

When these experiences and their attendant discourses are examined through the lens of a poststructuralist approach to understanding identity formation, the dynamic nature of identity formation offers both a possible explanation for the stability of the normative teacher identity in the face of broader cultural and social change and a possible solution to the problem of resistance to epistemological development. If the teacher-self is in fact a dynamic form of “working subjectivity,” then discursive practices can shift to accommodate changes in how the teaching profession is defined and shaped by the society it serves while maintaining and replicating the myths that constitute teacher identity (Britzman, 2003; Zembylas, 2003a). The dynamic nature of identity formation processes also suggests, however, that programmatic efforts to develop the epistemic sophistication of preservice teachers may empower them to critically evaluate the discourses and performances of teacher identity and provide teacher education faculty with avenues for promoting new expressions of teacher subjectivity within teacher preparation programs.

Before pedagogical practices and programmatic efforts to promote more sophisticated epistemological beliefs among preservice teachers can be developed, it is necessary for teacher educators to examine the impact of the pervasive influence of constructivist epistemology on our own discourse community. An examination of the extant literature on preservice teachers’ epistemological beliefs reveals that education research on epistemology has been restricted to the discourses of constructivist learning theory, resulting in the creation of measurements of epistemological development that are inherently flawed. Consideration of the literature examining the impact of teacher

education programs on preservice teachers' epistemological beliefs suggests that rather than promoting epistemic development, teacher educators are promoting the adoption of constructivist learning theory and ideologies by preservice teachers. Failure to examine the epistemological beliefs of preservice teachers through the lens of epistemologies other than constructivism has created a gap in our knowledge of preservice teachers' epistemic development and further restricted the discursive space of teacher education.

METHODOLOGY

Design of the Study

The purpose of this phenomenological study was to explore the relationship between the epistemological beliefs and beliefs regarding normative teacher identity expressed by preservice teachers at Montana State University. The purpose of the phenomenological research is to describe phenomena as they are experienced by participants being studied (Creswell, 2007). Most often, phenomenological data is gathered through inductive, qualitative methods such as interviews, discussions and participant observation. I have elected to collect the data using a survey instrument and to interpret the data using content analysis. Phenomenological research seeks to describe rather than explain, and to start from a perspective in which the preconceptions and bias of the researcher have been bracketed to the fullest possible extent. Prior qualitative studies have been used to identify preservice teachers' epistemological beliefs and examine their conceptions of teacher identity (Alsup, 2006; Britzman, 2003; Brownlee, 2001; Fisher & Rush, 2008). Due to the problems of reliability and validity of quantitative instruments intended to measure epistemological beliefs described by Debacker (2008), I have elected to examine the beliefs held by preservice teachers using a qualitative instrument.

Participants

For this study, anonymous survey data was collected from two groups. The first group was comprised of 16 students enrolled in one of two sections of an introductory epistemology class designed for education majors. The second group was made up of 24 students enrolled in the social studies methods course for elementary education majors in which I am the instructor.

In order to protect the anonymity of outliers in groups that tend toward homogeneity in one or more demographic categories, data concerning sex, age, and academic class were not collected from the individual participants. Thirty-seven percent of the students in the classes from which the first group self-selected were men. Sixty-three percent of these students were women. Seventy-five percent of the students in the combined classes from which the first group volunteered were classified as freshman. Twenty-one percent were sophomores. One student was classified as a junior. Sixty-two percent of these students were elementary education majors; all but two of the remaining students expressed an interest in majoring in education. Twenty-four percent of the students in the classes from which the second group self-selected were men. Seventy-six percent of these students were women. Seventy-nine percent of the students in the social studies methods class from which the second group volunteered were classified as seniors. Seventeen percent were juniors. One student was classified as a post baccalaureate student. All students in this group were elementary education majors.

Statement of Researcher Positionality

In a phenomenological investigation, it is necessary for the researcher to suspend, or bracket, his or her own prior knowledge and experience in order to examine the lived experiences of the participants with openness and as little bias as possible (Creswell, 2007). As an alumna of and instructor in the teacher education program from which the participants were selected, it was necessary for me to acknowledge and attempt to set aside my own experiences in order to better understand the phenomenon being investigated. Furthermore, as an instructor in one of the courses from which participants were solicited and a regular observer in the others, I needed to manage both reflexivity and reactivity. Therefore, I elected to collect data for content analysis using open-response and Likert scale survey items rather than conducting interviews and chose to maintain participant anonymity.

This study evolved from my experiences as a social studies methods instructor, field practicum supervisor, and researcher in a curriculum and instruction graduate program. Through my experiences teaching and supervising elementary education majors, I became aware of the differences in value these students assigned to the discussion of theory that take place in methods classrooms and their experiences working with practicing teachers in elementary schools. The students were often resistant to instructional practices presented in the methods course, a phenomena that researchers have attributed to the fact that these practices are inconsistent with the preservice teachers existing beliefs (Wideen, Myer-Smith, & Moon, 1998; Clift & Brady, 2005).

During this time, I began to explore poststructuralist theory and research, as well as research focused on epistemology and normative teacher identity (Boghossian, 2006; Britzman, 2003; Foucault, 1972). Reading poststructuralist theory provided me with a challenging new lens through which to examine the epistemological beliefs and conceptions of teacher identity developing within and among the preservice teachers I studied. Through these readings, I developed an understanding of how identities are formed and performed through discursive practices that gave new meaning to my research, as well as my own instructional practice. I considered with new eyes how the discourses of teacher education collide with those of K-8 practitioners, and how in the spaces within and between those discourses identities and their attendant beliefs are subjectively formed. As a result of this paradigm shift, my questions regarding preservice teacher epistemology and normative teacher identity took on new meaning. I no longer sought to locate the source of preservice teachers' received beliefs of knowledge and identity, but rather to explore the intersubjective and dynamic process of the creation, recreation, and performance of these beliefs within the context of the teacher preparation program.

Data Collection/Instrumentation

A survey instrument was developed for this phenomenological study. The participants were invited to respond to a series of questions designed to gather data concerning their beliefs regarding teacher identity, as well as their epistemological beliefs. The short-answer items designed to explore preservice teachers' conceptions of teacher identity were developed to provide participants with the opportunity to describe

their beliefs about the role of the teacher from multiple perspectives. The consideration of teacher identity from multiple perspectives was offered in order to provide the researcher with the opportunity to identify and explore emerging contradictory responses. Considerations of contradictions found within and among multiple discourses are an essential part of working within a poststructuralist theoretical framework.

Individual survey items were developed to provide data about preservice teachers' epistemological beliefs or their beliefs about teacher identity, as well as to illuminate the relationship between the two categories of belief. The alignment of individual items to each of the research questions is illustrated in Table 3.

Table 3. Instrument Item and Research Question Alignment

	What are the epistemological beliefs of preservice teachers at different points in the teacher education program?	What beliefs regarding normative teacher identity do preservice teachers hold at different points in the teacher education program?	What is the relationship between preservice teachers' epistemological beliefs and their beliefs regarding teacher identity at different points in the teacher education program?
Items I and II: The nature of knowledge	✓		✓
Items III and IV: Truth value/Evaluating truth value	✓		✓
Item V: Certainty of knowledge	✓		✓
Item VI: The ideal teacher	✓	✓	✓
Items VII and VIII: The teacher in the community and society	✓	✓	✓
Item IX: The teacher in the classroom	✓	✓	✓

Designing items to identify and explore the epistemological beliefs of the participants was especially challenging. Previous research found that three epistemic inventories did not support the theory that epistemic beliefs can be understood as a “domain-general and multidimensional collection of related beliefs about knowledge” (DeBacker, et. al, 2008, pg. 301). This study found that empirical examinations of epistemological beliefs suffered from low internal consistency and cited the lack of “a consistent picture of the number and nature of dimensions that constitute epistemic beliefs” in the extant literature, which may suggest that the theoretical framework underlying the development of these instruments is weak (DeBacker, et. al., 2008, pg. 301).

Since the validity and theoretical underpinnings of existing quantitative measures of epistemic and epistemological beliefs developed by education researchers remain in question, I chose to develop items based on a theoretical model grounded in philosophical considerations of epistemology, including questions of the nature, sources, and limits of knowledge and to analyze the data using qualitative methods. Two types of items were developed to explore the participants’ epistemological beliefs. First, a series of Likert scale items were adapted from the Epistemic Preference Indicator (EPI), which was developed by Martin Eisenberger (Eisenberger, Critchley, & Sealander, 2007). These items were chosen because the categories of epistemic preference they are intended to measure promised to offer insight into the participants’ beliefs about knowledge and justification. Short answer items were then developed to gain further insight into the responses given to the Likert scale Items. The framework used to develop these items,

which is adapted from Boghossian's (2006) comparison of objectivist and constructivist epistemologies found in *Fear of Knowledge*, is illustrated in Table 4.

Table 4. Instrument Item Alignment with Philosophical Considerations of Epistemology

	The Nature of Knowledge: Mind-independent vs. Social Constructed or Contingent	Justification: Based upon evidence or reason or dependent upon contingent need?	Rational Explanation: Is evidence sufficient or must contingent needs and interests be considered?
Item I	✓		
Item II	✓		✓
Item III	✓	✓	✓
Item IV		✓	✓
Item V	✓		

Verification and Trustworthiness

This study has been designed to align with the measures of trustworthiness developed by Arminio and Hultgren (2002). They suggest that the epistemological assumptions underlying qualitative research and those underlying traditional means of evaluating reliability and validity are contradictory, and proposed criteria for evaluating qualitative research that “addresses the epistemological grounding of qualitative research” (Arminio & Hutlgren, 2002, p. 447). They refer to these criteria as dimensions of “goodness”:

Epistemology and Theory: The Foundation: The epistemological and theoretical frameworks from which the study is approached must inform the methodology and be made clear to the reader. The theoretical and epistemological underpinnings of this study are discussed in the Statement of Researcher Positionality.

Methodology: The Approach: A justification for the methodology should be disclosed within the study. The decision to conduct a phenomenological qualitative study is justified in the discussion of data collection and instrumentation.

Method: The Collection of Data: Techniques used to gather and analyze data are described in detail and are appropriate to the chosen methodology and theoretical and epistemological foundations.

Researcher and Participants as Multicultural Subjects: The Representation of Voice; Interpretation and Presentation: Throughout the data analysis and interpretation process, I have reflected upon my relationship with both the participants and the phenomenon being explored. When reporting findings, I have taken care to represent multiple voices, including my own.

The Art of Meaning Making: Recommendations: Through the process of repeated readings of text, I have been mindful of the fact that meaning is created through the creation of codes, themes or categories. My process of meaning making is discussed throughout the study.

According to Maxwell (2005), the validity of a researcher's results cannot be guaranteed by following a given procedure. Maxwell (2005) suggests that evaluating the relative validity of a qualitative study requires the examination of its components in relationship to the purpose and circumstances of the research and recommends the use of several tests of validity. The validity tests below were

incorporated into this study in order to strengthen the trustworthiness and validity of the research:

1. Intensive, Long-Term Involvement – My sustained presence in the program being studied informed the research design, creation of the instrument, and interpretation and analysis of the data collected.
2. “Rich” Data – Multiple items were used to examine each construct. Many items were designed to elicit open responses from the participants.
3. Intervention – Since the data was collected during the third week of semester, it was not possible to avoid some degree of reactivity. Rather than ignoring the impact my presence and instruction may have had on participants’ responses, evidence of researcher intervention are analyzed and discussed.
4. Searching for Discrepant Evidence and Negative Cases – The responses of those participants who may represent negative cases are included among the multiple voices represented in the report of findings. Discrepant evidence is reported so that readers may evaluate my interpretation of the data and draw conclusions of their own.
5. Quasi-Statistics – Quantitative data has been used to support the conclusions drawn regarding the phenomena being explored.

Limitations of the Study

The participants in this study were chosen based on a set of criteria that would

exemplify the average preservice teacher at two points in the teacher education program at Montana State University. As a result of this sampling method, the findings of this study cannot be generalized to all students in similar teacher education programs. The results may be interpreted as this researcher's analysis of the beliefs expressed by the participants in this study.

The significant limiting factor of the instrument used to collect data that could have possibly influenced the results of the study. In Items I, II, and III of the survey instrument, the word "truth" is used interchangeably with the word "knowledge" in order to avoid participants' conflation of concepts of knowledge with those of learning. This element of the instrument design may have influenced the findings. It is possible that the participants' responses may have been significantly different had the word "knowledge" been used instead of the word "truth".

Data Management

Anonymous survey data were collected using the "Survey" tool provided by the *Desire2Learn* online learning environment that is a component of each of the courses. Both individual responses and summary reports for each group were stored electronically. Hard copies of individual responses were organized by group and by item and stored in an expandable file.

Data Analysis

The purpose of this study was to investigate three questions through the lens of poststructuralist theory: (1) What are the epistemological beliefs of preservice teachers at

different points in the teacher education program? (2) What beliefs regarding normative teacher identity do preservice teachers hold at different points in the teacher education program? and (3) What is the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher education program?

Analysis of qualitative data is a complex process complicated by ethical considerations, including the challenge of managing the subjectivity of the researcher (Britzman, 2003). A detailed description of the processes of analysis and interpretation is necessary in order to establish the trustworthiness of the study.

After the survey data were collected, the responses were read repeatedly before the process of analysis and synthesis began. As I read the responses, I made notes in my research journal regarding possible emerging themes and coding strategies. After multiple readings, the responses were coded. Responses were initially coded by constructs addressed by each of the three research questions. The responses to individual items were then coded through a process of identification of common and divergent concepts contained within responses. The last phase of the initial coding process was the identification of similarities and differences in the concepts contained within the responses given by each of the two groups. Examples of the initial coding structure are illustrated in Table 5.

Table 5. Selected Examples of the Coding Strategy Used to Analyze Survey Responses

Research Question	Concept/Theme	Description of Coding Strategy	Sample Statement	Code
What are the epistemological beliefs of preservice teachers at different points in the teacher education program?	What is the nature of knowledge?	Code by Item Number (II) Code by Group (A) or (B) Code by Nature of Knowledge (SC) or (MI)	“Because of different backgrounds and experiences truths are different for different people.”	II B SC
	Emerging Theme Theme 2.1. Knowledge is socially contingent and socially constructed.	Reference to the impact of differences of experience, perspective, and worldview on the truths held by individual suggest that the participant believes knowledge is socially contingent (SC).	“I do believe that there is only one overlying truth. People sometimes believe things to be true as a whole society, but sometimes, they aren’t.”	II A MI
What beliefs regarding normative teacher identity do preservice teachers hold at different points in the teacher education program?	Emerging Theme	Code by Item Number (II) Code by Group (A) or (B) Code by Statement of Power and/or Responsibility	“Teachers are part of the foundation of the community. Without them there would be no place to build from.”	VII B IMP F
	Theme 7.1 Teachers hold positions of power and responsibility in their communities and in American society.	Statements were coded by reference to the importance of the teacher (IMP), the influence of the teacher on the future (F), and the position of the teacher as a role model (RM).	“They should be a role model for the children in the community and an inspiration to other adults.”	VII B RM
What is the relationship between preservice teachers’ epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher education program?	Epistemological inconsistencies imbedded within teacher identity discourses.	Code by Item Number (IX) Code by Group (A) or (B) Code by participant number Code by Type of Epistemological Inconsistency	“The role of the teacher is to guide the intake of knowledge.”	IX B 14 IWR
	Emerging Theme Theme 1. To belief that the teachers are natural experts, PSTs must hold both naïve and sophisticated epistemological beliefs.	Inconsistencies embedded within responses were coded as “inconsistent within response. (IWR)” Responses that were found to be inconsistent with prior statement of epistemological belief were coded as “inconsistent between responses” (IBR).	“I do not think we can say one person’s truth is more valuable than another.” (Item III) This participant indicated that s/he evidence to evaluate ideas. (Item IV)	III, IV A 33 IBR

First, I coded responses the items designed to investigate the epistemological beliefs of the participants. I began the process of coding these responses by identifying language that appeared repeatedly in the short answer responses of individuals within the two groups, as well as language that may have led to the identification of negative cases. After emerging themes were identified within these responses, I compared these responses to those given to the Likert scale items. The combined responses of individuals to all questions were coded, and emerging themes of epistemological inconsistency and commitment were identified. Finally, the responses of the participants in the two groups were compared. Differences and similarities in expressions of epistemological belief of the two groups were identified, as were as cases in which individuals' responses suggested that they held epistemological beliefs that were significantly different from those held by the majority of their group.

Next, I coded responses the items designed to investigate conceptions of teacher identity. Again, I began the process of coding these responses by identifying significant statements that appeared repeatedly in the short answer responses of individuals within the two groups, as well as language that may have led to the identification of negative cases. After emerging themes were identified within responses to individual items given by the two groups, I read and coded the responses given by individuals to all four items, identifying emerging themes of discursive continuity and change demonstrated by the language used to describe the teacher identity across contexts. Finally, the responses of the participants in the two groups were compared. Differences and similarities in the

discursive practices of the two groups were identified, as well as cases in which individuals did not conform to the apparent discursive practices of their group.

After analyzing the responses by item and by item category, I analyzed the responses to all of the items with my third research question in mind. In order to better understand the relationship between the two categories of belief, I first returned to the literature. After rereading Schommer (1990), Lortie (1975), and Britzman (2003), I reread the data once more. Three themes emerged from this reading: The relationship between concepts of Omniscient Authority and Moral Authority, the relationship between the belief that knowledge can be transmitted as an intact object from one person to another and the belief that teachers are natural experts, and the pervasiveness of epistemological inconsistencies embedded within teacher identity discourses. The data were then read again in order to identify individual cases that either exemplified or challenged the emerging findings.

The final phase of analysis and interpretation was to attempt to create a cohesive, clear picture of the findings from the coded responses and emergent themes created through my interpretation of the data. During this process, themes and categories were merged, eliminated, and reconstituted. In this phase, quotes taken directly from the survey responses were selected in order to shed light on my process of interpretation and make further interpretation by the reader possible.

RESULTS

This chapter presents the results of the data analysis and discusses the themes that emerged during the process of analysis and interpretation. These findings will be considered in the context of the related literature.

The purpose of this study was to examine the relationship between the epistemological beliefs and beliefs regarding normative teacher identity held by two groups of preservice teachers at Montana State University: elementary education majors in their first year and elementary education majors enrolled in a social studies methods course who are scheduled to student teach in less than one year. This study was guided by three research questions:

- (1) What are the epistemological beliefs of preservice teachers at different points in the teacher education program?
- (2) What beliefs regarding normative teacher identity do preservice teachers hold at different points in the teacher education program?
- (3) What is the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher education program?

Data Analysis

Data analysis for this study proceeded according to the steps of phenomenological content analysis described by Creswell (2007). "Significant statements" were identified and organized into "clusters of meaning", or themes (Creswell, 2007, p. 61). During the process of content analysis, themes were identified as patterns of similarity and

divergence emerged in the responses to the survey instrument. These themes were used to interpret and describe the participants epistemological beliefs and beliefs regarding normative teacher identity, as well as the relationship between these two categories of belief. Finally, the themes were synthesized and the common underlying structure of the participants' beliefs was described.

Identifying the Participants' Epistemological Beliefs

Instrument Item I: Knowledge Exists That Is True for Each and Every Individual/ Knowledge Must Exist Only within an Individual or Groups of Similar Peoples

Item I consisted of a Likert scale item designed to explore whether the participants believe that knowledge is mind-independent or socially contingent. Analysis of the responses to this item suggests significant differences in the beliefs of the two groups. These differences were organized into two emerging themes: (1) the preservice teachers enrolled in the methods course believe that knowledge is not socially contingent, but can be certain and exists independent of the mind and (2) the freshmen and sophomores surveyed hold beliefs about the nature of knowledge that are both variable and uncertain.

Theme 1.1: The Preservice Teachers in the Methods Course Believe That Knowledge Is Not Socially Contingent, but Can Be Certain and Exists Independent of the Mind

The responses given by Group B to Item I were fairly homogenous. Of all responses given by Group B to Item I, 78% completely or mostly agree that knowledge exists that is true for each and every individual. In the same group, 82% completely or mostly disagree that knowledge must exist only within an individual or groups of similar

peoples. These beliefs indicate a belief that knowledge is a stable, preexisting entity. Of the remaining responses, 13% express uncertainty, describing their beliefs as “in between” or giving contradictory responses. One respondent in this group indicated that s/he mostly disagreed that knowledge exists that is true for all individuals and that s/he completely agrees that knowledge must exist only within individuals or social groups.

Theme 1.2: The Freshmen and Sophomores in Group A Hold Beliefs about the Nature of Knowledge That Are Both Variable and Uncertain

The responses to Item I given by the participants in Group A are more variable and uncertain than those in Group B. Of all responses given by this group, 56% completely or mostly agree that knowledge exists that is true for each and every individual. In the same group, 31% completely or mostly disagree that knowledge must exist only within an individual or groups of similar peoples. Of the remaining responses, 37% express uncertainty, with 25% describing their beliefs as “in between” for both prompts. Two respondents in this group indicated that they mostly disagree that knowledge exists that is true for all individuals and mostly agree that knowledge must exist only within individuals or social groups.

Instrument Item II: Do You Believe That Different People Have Different Truths?

Item II consisted of a short answer item designed to further explore participants' beliefs regarding the nature of knowledge and to examine their beliefs regarding justification and rational explanation. Responses to this item were fairly consistent between and among the two groups. Analysis of the responses revealed two categories of

belief that largely contradicted the beliefs expressed in responses to Item I: (1) Knowledge is socially contingent and socially constructed and (2) In some instances, an overarching certain and stable truth exists.

Theme 2.1: Knowledge is Socially Contingent and Socially Constructed

Of the 38 statements made by both groups in response to Item II, 33 expressed the belief that different individuals hold different truths. Of these statements, six suggest that knowledge is constructed by the individual and/or within a social context. Eighteen statements expressed the belief that truth is contingent on individuals' experiences. For example:

“Yes, different people view the world and its issues as whole differently. Because of different backgrounds and experiences truths are different for different people.”

“Yes because the truths people believe in depend on their experience.”

“Everyone is going to reach their own conclusions to a particular matter, it is rationalizing it for yourself to see what you believe in.”

“Yes. People create their own truth to explain their lives.”

“I believe you create truths based on environment and experiences.”

One participant in Group B expressed the belief that people *think* that different people hold different truths, but continued on to state “that is just the easy way to have everybody get along”, adding that “you can’t have two contradictory truths existing in the same world and just say it’s okay because they are different people.” This belief was echoed by another participant who stated, “I think people may think they have different truths, but I think there is only one truth.”

Theme 2.2: In Some Instances, an Overarching, Certain, and Stable Truth Exists

The vast majority of the responses given by both groups to Item II demonstrated relativist beliefs about knowledge. Some responses, however, indicated a belief that not all knowledge is socially constructed or socially contingent, echoing the uncertainty expressed in some responses to Item I. Of the 38 statements given in response to Item II, five suggested that, at least in some instances, a stable and certain underlying truth exists. One respondent indicated that “usually there is a right and wrong”, while another stated that “I do believe that there is only one overlying truth. It’s just that people sometimes believe things to be true as a whole society, but sometimes, they aren’t.”

Instrument Item III: *Are All Truths
Held by Individuals Equally Valuable?*

Item III, a short answer item, was designed to further explore participants’ beliefs regarding truth-value. Again, responses to this item were fairly consistent between and among the two groups. Analysis of the responses revealed two categories of belief that are consistent with Perry’s description of a relativist epistemological position: (1) Propositions are evaluated empathetically and (2) Justification is based upon contingent need.

Theme 3.1: Truth is Evaluated Empathetically

Analysis of the participants’ responses revealed the belief that truth should be evaluated with contingent needs and interests in mind. Sixty-nine percent of the preservice teachers in Group A and 68% of those in Group B expressed the belief that all

truths held by individuals are equally valuable. Several statements suggest a belief that it is somehow wrong to evaluate the truth of the beliefs held by others. One participant stated, “All truths that fulfill the definition of a truth are equally valuable. They all deserve discussion, equal treatment, and a basic condition of validity.” Another wrote, “Yes, because all truths are truths whether I believe them or not. Everything is valuable to someone.” Another stated, “I do not think we can say one person’s truth is more valuable than another.”

Theme 3.2: Justification Is Based upon Contingent Need

As stated above, most participants expressed the belief that the truths held by individuals were equally valuable. The pervasive belief that truth-value is contingent on the experiences and interests of the individual is expressed in a statement made by a preservice teacher from Group B, “Yes. We all have different experiences. How could we ever decide what is valuable and what isn’t? Therefore, they are all valuable.”

Disagreement with the concept of equal truth-value was based on the values and experiences of the individual, and was not representative of objectivist epistemological beliefs. Of the 38 statements made in response to Item III, only two indicated a belief that the value of a truth held by an individual should be evaluated using evidence or reason. Other explanations of why the truths held by individuals may not be of equal value fell into three categories: (1) Truths are not valuable if they do not conform to the religious beliefs or values of the evaluator, (2) Truths are not valuable if the evaluator deems them to be “damaging” or “unethical”, and (3) Truths are not equally valuable because “truth is all relative.”

Instrument Item IV: When Evaluating Ideas,
How Do You Most Often Decide Which Ones Are Valuable?

Item IV was a multiple-choice item was designed to further explore participants' beliefs regarding justification and rational explanation. Analysis of the responses revealed two categories of belief: (1) The value of an idea should be determined using evidence and reason and (2) The value of an idea should be determined socially, through a process of consensus with peers or colleagues.

Theme 4.1: The Value of an Idea
Should Be Determined Using Evidence and Reason

Of the 40 participants who responded to Item IV, thirty-five indicated that they use evidence or reason to evaluate an idea. Of these participants, 24 indicated that they use existing evidence or evidence gained through experience to evaluate ideas. Eleven responded that they evaluate ideas by thinking about them carefully. These beliefs are inconsistent with the constructivist epistemological beliefs expressed in responses to Items II and III.

Theme 4.2: The Value of an Idea Should Be Determined
Socially, through a Process of Consensus with Peers or Colleagues

Of the 24 preservice teachers in Group B who responded to Item IV, 5 indicated that they evaluate ideas through a process of consensus with peers and colleagues. This belief is consistent with elements of constructivist epistemology, such as the belief that knowledge is constructed socially. None of the participants in Group A selected this response.

Instrument Item V: *Is Certain Knowledge Possible?*

Item I consisted of a Likert scale item designed to explore whether the participants believe that knowledge is certain. Responses to Item V were consistent between and among groups. Analysis of the responses to this item revealed only one category of belief: Certain knowledge is possible.

Theme 5.1: Certain Knowledge Is Possible

The responses given by both groups to Item V were fairly homogenous. Of all responses given to Item V, 79% completely or mostly agree that certain knowledge is completely possible. Seventy-one percent completely or mostly disagree that certain knowledge is impossible. Of the remaining responses, 17% express uncertainty, describing their beliefs as “in between” or giving contradictory responses, including two respondents in Group A who indicated that they ‘mostly agreed’ that certain knowledge is both completely possible and basically impossible. Four participants, or 10%, indicated that they mostly agree that certain knowledge is impossible and mostly disagree that certain knowledge is completely possible.

Identifying Inconsistencies in the Epistemological Beliefs Expressed by the Participants

The first five items on the survey instrument were designed to examine the epistemological beliefs of the participants in three areas: (1) Beliefs about the nature of knowledge, (2) Beliefs about justification, and (3) Beliefs about rational explanation.

The epistemological beliefs in expressed by the participants in both groups were contradictory within and across categories of belief.

Theme 1: Both Groups of Preservice Teachers
Express Conflicting Beliefs about the Nature of Knowledge

Items I, II, and V required participants to consider the nature of knowledge.

When asked to consider whether knowledge exists independent of the mind or is socially constructed, participants in both groups expressed agreement with the idea that knowledge can exist that is true for everyone and disagreement with the idea that knowledge exists only within individuals or social groups. The beliefs expressed in response to this question suggest that the participants hold objectivist epistemological beliefs.

When asked to consider whether individuals can possess different truths, however, the overwhelming majority of participants in both groups express agreement with the idea that different truths can exist within individuals and explicate that belief by discussing the how unique experiences of individuals are used to create those truths. The beliefs expressed in response to this question are reflective of constructivist epistemologies.

Table 6. Identifying Inconsistencies in the Epistemological Beliefs Expressed by the Participants

	Item	Group A	Group B
The Nature of Knowledge			
The world that we seek to understand is mind-independent.	Item I: Mind-independence vs. contingency	56.0%	82.0%
	Item II: Does truth exist within the individual?	12.5%	14.0%
	Item V: Certainty of knowledge	82.0%	79.0%
All facts are socially constructed and reflective of our contingent needs.	Item I: Mind-independence vs. contingency	12.5%	4.0%
	Item II: Does truth exist within the individual?	87.5%	86.0%
	Item V: Certainty of knowledge	6.3%	13.0%
Justification			
Justification is based upon evidence or reason.	Item III: Relative truth value	0.0%	8.7%
	Item IV: Evaluating truth value	100.0%	78.0%
Justification is dependent upon the contingent need.	Item III: Relative truth value	100.0%	91.3%
	Item IV: Evaluating truth value	0.0%	22.0%
Rational Explanation			
Evidence alone can be sufficient to explain a belief.	Item II: Does truth exist within the individual?	12.5%	4.0%
	Item III: Relative truth value	0.0%	8.7%
	Item IV: Evaluating truth value	100.0%	78.0%
Contingent needs and interests be considered.	Item II: Does truth exist within the individual?	87.5%	86.0%
	Item III: Relative truth value	100.0%	91.3%
	Item IV: Evaluating truth value	0.0%	22.00%

The final question designed to explore whether the participants believe that certain knowledge is possible. The majority of the responses given by the participants suggest that they believe that certain knowledge is possible. While four participants did express the belief that certain knowledge is basically impossible, the skeptical underpinnings of constructivism do not appear in the responses of the majority of the responses.

Theme 2: Both Groups of Preservice Teachers Express Conflicting Beliefs about Justification and Rational Explanation

Items III and IV were created to investigate the preservice teachers' beliefs regarding justification. The responses to Item III, which required the participants to consider whether the truths held by individuals are equally valuable, revealed the belief that truth should be evaluated with contingent needs and interests in mind. Sixty-nine percent of the preservice teachers in Group A and 68% of those in Group B expressed the belief that all truths held by individuals are equally valuable. Several statements suggested the belief that it is somehow wrong to evaluate the truth of the beliefs held by others. Only two respondents indicated a belief that the value of a truth held by an individual should be evaluated using evidence or reason.

The responses to Item IV directly contradict the beliefs expressed above. When asked how they evaluate ideas, the all of the participants in Group A and 78% of those in Group B indicated that they use evidence or reason to determine an idea's value. These responses also indicate that the participants believe that evidence alone can be sufficient to explain a belief. Though the responses to Item III suggest that the preservice teachers surveyed hold epistemological beliefs that align with relativist and constructivist epistemologies, the responses to Item IV indicate that the participants hold objectivist beliefs regarding justification.

Comparing the Epistemological Beliefs of the Two Groups

Analysis of the responses given by both groups of participants does not suggest that the groups hold epistemological beliefs that are significantly different. The

preservice teachers in both groups simultaneously hold naïve and sophisticated epistemological beliefs, beliefs that contradict each other. As demonstrated in Table 5, the contradictions between and within categories of belief follow the same pattern in both groups.

Examining the Participants' Beliefs Regarding Teacher Identity

The last four items of the survey instrument were designed to gather data that would help to describe the participants' beliefs regarding teacher identity. Participants in the two groups were asked to describe the ideal qualities of a teacher and to describe the role of the teacher in the classroom, in the community, and in American society. Though the items were designed to illuminate preservice teachers' beliefs regarding normative teacher identity, the responses also offered insight into the epistemological beliefs of the participants.

Instrument Item VI: Describe the Ideal Qualities of an Elementary Teacher

Though there were significant differences in the responses of the two groups that will be addressed when the discursive practices of the two groups are compared, common themes did emerge. The responses of participants in the two groups can be described by four themes: (1) There are traits of personality that teachers must possess, (2) Teachers should possess qualities that prepare them to enter a profession that is demanding, (3) The personality traits and skills held by the ideal teacher prepare that teacher to work in isolation from other adults, and (4) Being knowledgeable is a relatively unimportant aspect of being a teacher.

Theme 6.1: There Are Certain Dispositions That Teachers Must Possess

Though the responses of the two groups did vary, commonly held beliefs regarding the characteristics of the ideal teacher did emerge from the data. These beliefs were overwhelmingly related to teacher disposition. For Item VI, 58% of the responses of the participants in Group A, the students at the beginning of the teacher education program, and approximately 52% of the responses of Group B, the students in the methods course, pertained to disposition.

Analysis of the participants' responses revealed three types of dispositions that should be held by the "ideal teacher." These statements regarding disposition were not expressed in relation to student outcomes or the challenges of teaching. These dispositions included personality traits, values, and professional characteristics. When asked to name the characteristics of the ideal teacher, participants most often cited personality traits that are inherent in the teacher and most likely existed within the teacher prior to entry in a teacher education program, most commonly describing the ideal teacher as "fun," enthusiastic," "caring," "loving," nice," "honest," and "good with kids." In response to this item, preservice teacher in Group B also cited values, such as "good morals" and "valuing education." Professional characteristics not specific to teaching, such as punctuality and dependability, were also mentioned.

Table 7. Dispositional Characteristics of the Ideal Teacher

Category	Characteristic	% of total Item I Statements	Examples of Statements
Personality Traits		Group A 56.00%	
		Group B 47.56%	
	Fun/Enthusiastic	Group A 10.00%	“The ideal teacher must create fun in the classroom”
		Group B 12.62%	
	Friendly/Outgoing	Group A 6.00%	“A teacher should be friendly and fun-loving.”
	Charismatic	Group B 0.97%	
	Loving/Kind/Nice	Group A 12.00%	“They should also be caring and loving.”
	Caring	Group B 8.74%	
	Understanding	Group A 2.00%	“A teacher should have concern for each student, including understanding.”
	Empathetic	Group B 4.85%	
	Honest/Trustworthy	Group A 4.00%	“A teacher needs to be open and honest with their students.”
		Group B 6.80%	
	Open/Open-minded	Group A 0.00%	“... having an open mind.”
		Group B 3.88%	
	Confident	Group A 0.00%	“...being confident in front of the classroom.”
		Group B 1.94%	
	Respectful	Group A 4.00%	“... have respect for the children”
		Group B 2.91%	
	Strict/Controlling		“You must be strict but loving at the same time.”
	Commitment to learning	Group A 2.00%	“It is someone who is continually learning and challenging themselves.”
		Group B 4.85%	
	Good with kids	Group A 10.00%	“Someone that loves the thought of helping children.”
	Likes kids	Group B 0.00%	
	Desire to teach	Group A 2.00%	“Someone who wants to teach children but also learn from them.”
		Group B 0.00%	
Values		Group A 0.00%	
		Group B 2.91%	
	“Good Morals”	Group A 0.00%	“A teacher should have Good Morals and Judgment.”
		Group B 0.97%	
	Values knowledge	Group A 0.00%	“Values education and knowledge...”
		Group B 0.97%	
	Values education	Group A 0.00%	
		Group B 0.97%	
Professional characteristics		Group A 2.00%	
		Group B 1.94%	
	Reliable/Dependable	Group A 2.00%	“Dependable”, “Should be reliable”
		Group B 0.97%	
	Punctual	Group A 0.00%	“Punctual”
		Group B 0.97%	
All Dispositional Characteristics		Group A 58.00%	
		Group B 52.41%	

Theme 6.2: Teachers Should Possess Qualities
That Prepare Them to Work in a Profession That Is Demanding

When asked to describe the characteristics of the ideal elementary teacher, the preservice teachers in both groups made statements that suggested that they believe teaching is quite demanding. The participants described the ideal teacher as “hardworking,” “resilient,” “driven,” “dedicated,” “passionate,” “persistent,” “flexible,” “selfless,” and, most of all, “patient.” Of all statements made by Group A in response to Item VI, 16% suggested that the participants perceive teaching to be demanding. Thirty-three percent of the statements made by Group B, the students who will student teach in less than one year, suggested that these preservice teachers believe that teachers should possess qualities that prepare them to work in a profession that is challenging.

Of the 34 statements made by both groups that suggest that teachers must possess traits that will prepare them to work in a demanding field, 11 expressed the belief that a teacher must be patient. Of the 11 statements pertaining to patience, the four statements below contained qualifiers that served to underscore the importance of patience to successful teaching:

“An elementary teacher first needs to have *an extreme amount* of patience.”

“Teachers should have the drive to always encourage students and have *enormous* patience.”

“I think the ideal qualities for an elementary teacher ... someone who has *a lot* of patience.”

“Also, patience is a *very important* quality. At times a teacher may want to blow up about something, but being patient and dealing with the situation is the key to a successful classroom.”

Theme 6.3: The Personality Traits and Skills Held
by the Ideal Teacher Prepare That Teacher to Work in Isolation from Other Adults

Of the 153 total statements made in response to Item VI, only 18 statements referred to traits or skills of the ideal teacher in the context of interaction with other individuals. Of these 18 statements, all but one referred to the teacher's interaction with students. Participants stated that teachers should "have good classroom management," "make learning interesting," "be inspirational," and "create a nurturing environment." Only one participant stated that the ideal teacher should possess characteristics that will prepare him or her to work successfully with other adults, referring to the importance of "good people and communication skills."

Theme 6.4: Being Knowledgeable is a
Relatively Unimportant Aspect of Being a Teacher

The participants' responses to Item VI suggest that the preservice teachers' studies believe that being knowledgeable is a relatively unimportant aspect of being an ideal teacher. Of the 153 statements made by both groups in response to this item, only 11 statements, or 7% of all statements, made reference to the teachers' knowledge. These responses referred to three knowledge types: (1) content knowledge, (2) pedagogical knowledge/knowledge of child development, and (3) unspecified knowledge. A single response stated that the ideal teacher should "know when to administer punishment."

Although only eleven statements were made regarding the knowledge held by the ideal teacher, three more statements were made that pertained to how the ideal teacher thinks. These statements were all made by students in Group B, those who were

currently taking the methods course, and referred to beliefs that the ideal teacher should be an “independent thinker,” possess “critical thinking skills,” and “analyze what works.”

Table 8. Participants’ Statements about the Characteristics of Ideal Teacher Pertaining to Knowledge

	% of total Item I Statements		Examples of Statements
Content Knowledge	Group A	0.00%	“I think the most crucial quality is knowledge. Not only content knowledge but also teaching knowledge.”
	Group B	1.94%	
Pedagogical Knowledge/ Knowledge of Child Development	Group A	2.00%	“Understands basic child psychology”, “Content knowledge about how children develop and mature”
	Group B	1.94%	
Unspecified knowledge	Group A	6.00%	“Knowledgeable”, “Education”, “Educated”
	Group B	1.94%	
All statements pertaining to knowledge	Group A	8.00%	
	Group B	5.82%	

*Instrument Items VII and VIII: What Is the Place of Teachers in a Community?
How Do Teachers Contribute to America's Success?*

Though the responses of participants in the two groups varied, three common themes resulted from the analysis these items: (1) Teachers play an important, even central, role in their communities and in American society; (2) Teachers shape the future through their influence on children; and (3) Teachers are transmitters of knowledge.

Theme 7.1: Teachers Hold Positions of Power
and Responsibility in Their Communities and in American Society

The responses of the participants, particularly those given by the preservice teachers currently enrolled in methods courses that made up Group B, revealed the belief that teachers play a very important, even central, role in their communities and in American society. Seventeen percent of the statements given by the participants in Group B in response to Items VII and VIII explicitly referred to the importance of

teachers. Two of these responses suggested that teachers' important contributions are unappreciated. The responses of Group A, the students at the beginning of the teacher education program, contained only 2 references pertaining to the teacher's importance.

Table 9. Preservice teachers' beliefs regarding the importance of the teacher to community and society

Belief	% of total Item VII and VIII Statements	Examples of Statements
Teachers are very important to their communities and American society.	Group A 4.88% Group B 17.39%	<p>"Teachers are part of the foundation of the community. Without them there would be no place to build from."</p> <p>"Teachers are the foundation of a community. Without them, there would be no learning and knowing new information."</p> <p>"Teachers are the main contribution to American success."</p> <p>"Teachers in a community hold an important role. They are often unappreciated but vital nonetheless."</p> <p>"Whether some agree or not, teachers serve a very high place in the community."</p>
Teachers shape the future.	Group A 36.59% Group B 20.29%	<p>"Teachers are responsible for making sure that the next generation of workers and citizens is prepared to deal with the world environment in which they will have to live."</p> <p>"They prepare a whole future generation."</p> <p>"Teachers set up a future generation who will be in control."</p> <p>"Teachers start them off in the right direction for their future."</p>
Teachers are role models for children, parents, and the community as a whole.	Group A 7.31% Group B 20.29%	<p>"They should be a role model for the children in the community and an inspiration to other adults."</p> <p>"Teachers are important figures outside of homes, because they model what a parent or guardian might not."</p> <p>"They should be the person everyone trusts and everyone can rely on."</p>
All beliefs pertaining to the importance of the teacher to community and society.	Group A 48.78% Group B 57.97%	

Analysis of the participants' responses revealed three distinct discourses regarding the importance of the teacher. These included declarations of the importance of the teacher, statements regarding the teacher's role in shaping the future, and statements that teachers serve as role models to children, parents and the community as a whole. Taken as a whole, the responses indicate that preservice teachers believe teachers hold positions of power and responsibility in the community and society. Examples of these discourses can be seen in Table 6.

Theme 7.2: Teachers Shape the Future through Their Influence on Children

Of the 110 total statements made in response to Items VII and VIII, 29 statements, or 26%, pertained to the preservice teachers' belief that teachers shape the futures of individuals, communities, and society through their interaction with their students. The preservice teachers in Group A stated that teachers "are there to educate the students of the future", "prepare students for the next step in life," "expand the mind of the future," and "set a base line for how the future of America thinks and understands." Participants in Group B stated that teachers "direct the path of our youth," "send kids down a path to a lifetime of learning," and "shape the minds of the future, guiding them in the right direction."

Theme 7.3: Teachers Are the Transmitters of Knowledge

The participants' responses to Items VII and VIII suggest that the preservice teachers' studied believe that teachers serve as transmitters of knowledge. These responses referred to three types of knowledge transmission: (1) teaching students what

they should know, (2) teaching students how to know, and (3) transmission of knowledge from school to home.

Table 10. Participants' Statements Regarding Types of Knowledge Transmission

Type of Knowledge Transmission	Examples of Statements
What to know	<p>“teaching children what they need to know to improve the future”</p> <p>“By gifting them with knowledge and experience.”</p> <p>“To communicate what the children need to know.”</p> <p>“Teachers guide the students' intake of knowledge.”</p> <p>“Knowledge comes from teachers.”</p> <p>“ Without teachers, no one would learn...”</p> <p>“By teaching the right way to think.”*</p>
How to know	<p>“They teach people how to learn and how to have an open mind while learning.”</p> <p>“To provide new ways of thinking.”</p> <p>“Teachers contribute to America's success by teaching students to be critical thinkers.”</p> <p>“By teaching the right way to think.”*</p>
Transmission of knowledge from home to school	<p>“They are the connection between education and the parents and families.”</p> <p>“They facilitate communication between in and out of school.”</p>

Instrument Item IX: *What Is the Role of the Teacher in the Classroom?*

There were significant differences in the responses of the two groups to Item IX. Though the participants' responses to prior items suggest that they believe that everything, in fact does “depend on the teacher” (Britzman, 2003) and that teachers are naturally expert knowledge authorities, when the preservice teachers were asked to consider the teacher's identity within the context of the classroom, a discursive reflex was triggered in Group B. Two categories of belief are suggested by Group B's responses to Item IX: (1) The role of the teacher is to facilitate learning and (2) The role of the teacher is to serve as a guide for students. Two different categories of belief emerged from the responses of Group A: (3) The role of the teacher is to transmit knowledge to the students and (4) The role of the teacher is to support students.

Theme 9.1: The Role of the Teacher
in the Classroom Is to Facilitate Learning

Of the 24 participants in Group B, 7 used some form of the word “facilitate” when describing the role of the teacher in the classroom. According to the preservice teachers in Group B, teachers facilitate learning in several ways. The participants stated that teachers may facilitate learning through instructional practices by “taking students to a level they could not get to by themselves” or by “creating meaningful lessons.” Some participants expressed that teachers also facilitate learning by serving as a “guide who motivates the students’ learning.” One participant from Group A also used the word ‘facilitate’ to describe the role of the teacher in the classroom, stating that the role of the teacher is to “facilitate the student’s understanding and education in the subject material.”

Theme 9.2: The Role of the Teacher
in the Classroom Is to Serve as a Guide for Students

Of the 24 participants in Group B, 13 used the word “guide” when describing the role of the teacher in the classroom. Many of the responses suggest that the role of the teacher is to guide students as they construct their own knowledge:

“The teacher should act more like a guide in the student’s own search for learning.”

“The role of the teacher in the classroom is to guide and ask difficult questions, and work through them with the students so they are eventually able to do this process on their own.”

“The role of the teacher is a facilitator, not necessarily someone who has all the answers, but someone who will guide students toward self-discovery.”

Other participants in this group indicated that the role of the teacher is to guide the student toward an end that is determined by the teacher:

“The role of the teacher is to guide the intake of knowledge.”

“The role of the teacher is to present knowledge and guide students to understanding it.”

“The teacher is there to guide them on the appropriate path.”

No participant in Group A used the word ‘guide’ when describing the role of the teacher in the classroom.

Theme 9.3: The Role of the Teacher in the Classroom Is to Convey Knowledge to Students

When asked to define the role of the teacher in the classroom, the preservice teachers in Group A gave responses that were similar to those given when asked to describe the roles of the teacher in the community and in American society. Several of the participants in this group indicated that the role of the teacher is to convey knowledge to the students. According to these preservice teachers, the role of the teachers is “to educate them, both in book knowledge and in life lessons,” “to insert new ideas and new ways of thinking,” “to convey knowledge and mediate the classroom,” and “to get across material to every single student.”

Theme 9.4: The Role of the Teacher in the Classroom Is to Support Students

When describing the role of the teacher in the classroom, the participants in Group A expressed the belief that the role of the teacher is to support students. For some preservice teachers, this support is emotional. One participant stated that the role of the

teacher is to “encourage them to do the best they can, and never tell them they are doing an awful job at something.” Another preservice teacher wrote that the teacher’s role is to “support the kids, look out for them, and teach them all at the same time.” Other participants explained that teachers should provide academic support, “encouraging them to do the best they can and making sure they are actually learning and understanding the material.” One member of Group B shared this belief, stating, “The teacher’s role is to support student learning outcomes with well-prepared lessons that stimulate each student as best as possible.”

Discursive Shifts, Shifting Identities:
Examining the Discursive Practices of the Two Groups

Analysis of the responses to the items pertaining to teacher identity suggests that the beliefs expressed by Group A, the freshman and sophomores who have recently entered began taking courses in the teacher education program, remain stable even as they are prompted to consider the role of the teacher in different contexts. In contrast, the preservice teachers in Group B, those who are in the third or fourth year of the teacher education program, perform a series of variations upon teacher identity, shifting identities as they move between discourses. These variations of discursive practice reveal the conflicting discourses that preservice teacher must learn to negotiate in the teacher education program: (1) The discourses of the practitioner in community and society and (2) The discourses of the theory and method of teacher education.

Theme 1: The Discourses of the Practitioner in Community and Society

Analysis of the responses given by the participants to the items related to teacher identity suggests that preservice teachers are subject and object of three major discourses of the practitioner in community and society: (1) Discourses of teacher authority, (2) Discourses of the importance of the teacher, and (3) Discourses of the challenges and isolation teachers must face. When the participants were asked to consider the characteristics of the ideal teacher and the role of that teacher in the community and in American society, images of the teacher as a moral authority and a knowledge authority emerged from the responses of participants in both groups.

The discourses of the importance of the teacher include language describing teachers as the foundation of the community, as role models to students, their parents, and the community as a whole, and finally, as shaping the future of America through their influence on its children. These discourses are described in depth in Table 8.

Table 11. Preservice Teachers' Conceptions of the Teacher as Authority

The Teacher as Authority	Expressed Beliefs
The Teacher as Moral Authority	<p>“The ideal teacher should have positive values and good morals and judgment.”</p> <p>“They should be a role model for the children in the community and an inspiration for other adults.”</p> <p>“Teachers live are continually watched by parents, community members, students, etc. They have to constantly consider this fact and their actions need to line up with what they hold their students to and what is a professional lifestyle.”</p> <p>“Teachers are important figures outside they home because they model what a parent or guardian might not.”</p>

Table 11, continued

The Teacher as Knowledge Authority	<p>“Teachers set a baseline for how the future of America thinks and understands.”</p> <p>“Teachers communicate what the students need to know to the community.”</p> <p>“That knowledge comes from teachers.”</p> <p>“Teachers must equip students with the knowledge they need to succeed in and out of school.”</p>
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Discourses of the challenges and isolation of the profession emerged as participants described the ideal teacher, through their description of the “resilience” and “patience” required of teachers, in the conspicuous absence of language referring to characteristics or skills required to work well with other adults, and through statements expressing the belief that teachers are “often unappreciated, but vital nonetheless.”

Theme 2: The Discourses of the Theory and Method of Teacher Education

When asked to describe the role of the teacher in the classroom, the preservice teachers in Group B, those who are in the third or fourth year of the teacher education program, departed from the discourses of individual teacher identity and teacher identity in the context of community and society, shifting their expressed beliefs regarding teacher identity as they moved between discourses. When considering the role of the teacher during classroom instruction, the participants in this group abandoned the language of the teacher as authority and began to use language of constructivism they likely learned within the teacher education program, expressing the belief that teachers should be facilitators of learning and serve as guides in the learning process. The

participants in Group A, those who are relatively new to the program, did not make this discursive shift and continued to express beliefs that teachers are authorities who convey knowledge.

Examining the Relationship between Epistemological Beliefs and Beliefs Regarding Teacher Identity

After the data were analyzed, and themes regarding the participants' epistemological beliefs and beliefs regarding teacher identity were identified, the emergent themes were reconsidered in order to explore the relationship between the two categories of belief. During the process of analysis, it became apparent that epistemological inconsistencies were imbedded in the participants' statements regarding their conception of teacher identity. Through an analysis of these inconsistencies, two possible explanations emerged that reveal intersections of epistemological and identity belief that may offer insight into why preservice teachers seem to accept without question contradictory discourses knowledge and identity: (1) In order to maintain the belief that the teachers are natural experts on which all learning depends, preservice teachers must simultaneously hold naïve and sophisticated epistemological beliefs and (2) The preservice teachers surveyed are not, in fact, expressing their own epistemological beliefs and beliefs about teacher identity, but are instead performing a series of shifting discourses.

Theme 1: In Order to Maintain the Belief That Teachers are Natural Experts upon Which All Learning Depends, Preservice Teachers Must Simultaneously Hold Naïve and Sophisticated Epistemological Beliefs

When considering what possible meaning could be made from the findings demonstrating that the participants repeatedly gave conflicting statements regarding their epistemological beliefs, I recalled Pajares's (1992) description of identity and epistemological beliefs as interwoven components of a central belief structure and his finding that these beliefs are particularly resistant to change. Alsop (2006) has suggested that the myths of the teacher may reveal categories of resistance to epistemic development. The data collected in this study suggest the preservice teachers surveyed express conflicting epistemological beliefs because they are preoccupied with assuming the identity of the teacher (Chong & Low, 2009), and will make whatever statement they feel supports the element of mythic teacher identity that is currently under consideration. Analysis of the statements made by participants in both groups indicated that, in order to believe that all teachers are natural experts and that everything depends on the teacher, elements of both objectivist and constructivist epistemologies must be invoked. The epistemological underpinnings of elements of each myth of teacher identity are described in Table 12. The beliefs described below may not seem to be compatible with each other, but they do work together to defend centrally held beliefs about teacher identity that, within preservice teachers, can also be described as conceptions of self.

Table 12. The epistemological beliefs underlying myths of teacher identity

Myth and Assumptions Contained Within the Myth	Epistemological Beliefs Underlying these Assumptions	Supporting Statements
Everything depends on the teacher.		
<ul style="list-style-type: none"> The teacher is the source of knowledge. 	Knowledge is authority-based, stable, certain, and simple enough to be transferred from one individual to another	<p>“Knowledge comes from teachers.”</p> <p>“ Without teachers, no one would learn.”</p> <p>“The role of the teacher is to insert new ideas and new ways of thinking.”</p>
<ul style="list-style-type: none"> Knowledge accumulates with experience. 	Justification is based on experience and evidence.	“Because of different backgrounds and experiences truths are different for different people.”
The teacher is the expert.		
<ul style="list-style-type: none"> Expertise is defined by moral authority and technical competence. 	There are right and wrong truths; justification is authority-based.	<p>““I think people may think they have different truths, but I think there is only one truth.”</p> <p>“ Usually, there is a right and a wrong.”</p>
<ul style="list-style-type: none"> All teachers are experts, regardless of their preparation and education. 	What must be known is contingent upon the teacher’s knowledge and teaching position; justification of the teacher’s expertise is socially contingent.	“The role of the teacher is facilitator, not necessarily someone who has the answers.”
Teachers are self-made.		
<ul style="list-style-type: none"> Teachers are born, not made. Reflection upon theory and practice serves no purpose. 	Knowledge comes from experience. Justification is internal and subjective.	“Depending on who a person is and where they grew up, people have to decide what is true for them.”

Theme 2: The Preservice Teachers Surveyed Are Not, In Fact,
Expressing Their Own Epistemological Beliefs and Beliefs about
Teacher Identity, but Are Instead Performing a Series of Shifting Discourses

Though the statements made by the participants who have recently entered the teacher preparation program and those are nearing program completion were remarkably similar, there are intriguing differences in their discourses. These differences suggest that, while all of the participants arrive in the program well prepared by the “apprenticeship of observation” that K-12 education provides to negotiate the boundaries of teacher identity discourses and the discourses of knowledge contained within, the participants in Group B have learned to negotiate additional discourses, the discourses of teacher education.

When asked to consider if knowledge exists that is true for each and every individual and if it could only exist within an individual or groups of similar people, the freshmen and sophomores in Group A offered a wide variety of responses, often expressing uncertainty or giving responses that were contradictory. The participants in Group B, the students in their third or fourth year of the program, offered responses that suggest a high degree of homogeneity within the group, with 82% expressing the belief that knowledge is a stable, certain mind-independent entity. This belief a necessary component of the identity myth in which teachers are authorities responsible for conveying knowledge to their students. This belief is also inconsistent with the language of constructivism that appears in other responses.

While responses to other items indicated that the participants in both groups believe that justification is based upon contingent need, when asked how they determine

the value of an idea, all of the participants in Group A indicated that they use evidence or reason to evaluate an idea, with none responding that ideas should be evaluated socially. This departure from constructivist epistemology was not complete for all preservice teachers, however. Five of the 24 participants in Group B stated that they evaluate ideas socially, through a process of consensus with peers or colleagues. This may suggest that the language of constructivism has begun to penetrate their descriptions of their learning practices.

Finally, there were significant differences in the responses of the two groups when the preservice teachers were asked to consider the teacher's identity within the context of the classroom. Though the participants in both groups gave responses to previous that indicated a belief that teachers are powerful experts on whom learning depends, when this question was asked, a discursive reflex was triggered in Group B.

Of the 24 participants in Group B, 7 used some form of the word "facilitate" when describing the role of the teacher in the classroom. Of the same group, 13 participants used the word "guide" to describe the role of the teacher in the classroom. Many of the responses suggest that the role of the teacher is to guide students as they construct their own knowledge. Other participants in this group indicated that the role of the teacher is to guide the student as they receive knowledge that is conveyed by the teacher. The frequency with which the words 'facilitate' and 'guide' were used to describe the role of the teacher in the classroom indicates that the participants in this group may be performing constructivist discourses they have learned during their time in the program. This possibility is underscored by the fact that some members of the group use the

language of constructivism to describe instructional practices in which the student is the receiver of knowledge:

“The role of the teacher is to guide the intake of knowledge.”

“The role of the teacher is to present knowledge and guide students to understanding it.”

This discursive shift was not apparent in the responses given by Group A. When asked to define the role of the teacher in the classroom, the preservice teachers in Group A gave responses that were similar to those given when asked to describe the roles of the teacher in the community and in American society. Several of the participants in this group directly indicated that the role of the teacher is to convey knowledge to the students.

The differences of the beliefs of the two groups, especially the increase in homogeneity of responses given by Group B, suggests that preservice teachers may be learning to negotiate the boundaries of epistemological and identity discourses that both reinforce and challenge the pervasive cultural myths of the teacher over the course of their time in the program. The fact that they frequently make statements of epistemological belief and teacher identity that are contradictory without once making references to these contradictions suggests that they may not have actually developed these beliefs through a process of consideration, but have received them during their time in the teacher preparation program.

Discussion of the Findings in the Context of Related Literature

The literature reviewed for this study included works on the philosophical considerations of epistemology, studies of the epistemological beliefs of college students generally and preservice teachers in particular, research regarding the construction of normative teacher identity among preservice teachers, and research regarding the influence of teacher preparation programs on preservice teachers' beliefs. In this section, the data will be summarized and findings will be compared with the related literature.

Considering the Epistemological Beliefs of the Participants through the Lens of Epistemology

Philosophers who study knowledge are concerned with identifying the “the necessary and sufficient conditions of knowledge,” examining how knowledge obtains, and contemplating the structure and limits of knowledge (Steup, 2005). Epistemologists also consider questions of justified true belief, including what it means for a belief to be justified and whether justification occurs within the believer's mind or externally (Williams, 2001). Boghossian's comparison of objectivist and constructivist epistemologies provided a useful lens through which to examine the epistemological beliefs of the participants (2006, p.22). Using Boghossian's model, I sought to compare the participants' beliefs about the nature of knowledge, justification of beliefs, and rational explanation of the justification of beliefs. The responses of both groups suggest that the participants have not developed firm beliefs about the nature of knowledge, justification, or rational explanation. The participants express conflicting beliefs in all three categories, sometimes expressing beliefs consistent with objectivism, such as the

belief that justification is based upon evidence or reason, and other times expressing beliefs consistent with constructivism, such as the belief that all individuals hold their own truths that are contingent on their unique experiences and needs. A complete comparison of these beliefs can be found in Table 6.

Examining the Epistemological Beliefs of the Participants Through the Lens of Education Research

Since Perry's 1970 longitudinal study examining the beliefs of male Harvard students, education researchers have studied the epistemological beliefs of college students using a variety of theoretical models. Perry identified four categories of epistemological positions: dualism, multiplism, relativism, and commitment. He asserted that as individuals progressed through these positions, they moved away from the belief that knowledge could be conveyed to them by authorities and toward a belief that knowledge is multiple and flexible and constructed by the learner through a process of interpretation and evaluation within a social context.

As suggested by the examination of the data through the lens of epistemology, a comparison of the expressed beliefs of the participants to Perry's scheme indicates that the preservice teachers studied simultaneously hold naïve and sophisticated epistemological beliefs. In response to questions regarding both knowledge and identity, participants expressed beliefs that are consistent with Dualism or Received Knowledge (Perry, 1970). When asked if knowledge exists that is true for each and every individual or if knowledge must exist only within an individual or groups of similar peoples, the majority of participants in both groups expressed a firm belief that knowledge exists

independent of the mind, a conception of knowledge that is inconsistent with the theoretical underpinnings of constructivism. These findings are consistent with those of Fisher and Rush (2008), who concluded that even preservice teachers who have more sophisticated beliefs about the nature of knowledge in other areas still tend to believe that knowledge exists as a separate entity and is not constructed actively by the learner within a social context. When asked to describe the role of the teacher in the community and society, the participants made many statements that reflect the belief that knowledge is conferred by authority and received by the learner. This suggests that the participants believe the knowledge is simple, certain, and stable enough to be transmitted from teacher to student (Schommer, 1990.) These findings are consistent with Brownlee's description of naïve epistemological beliefs (2001).

Statements made in responses to other items suggest that many participants are progressing through Perry's epistemological positions, most notably from Multiplicity to Relativism (1970). Many participants indicate that the truths held by individuals should be evaluated empathetically, but also state that each individual evaluates ideas internally and subjectively. When the participants were asked to consider the role of the teacher in the classroom, many statements were made that reflect values associated with constructivism, but commitment to and understanding of constructivist epistemology was not demonstrated by the data. Participants frequently acknowledged of the influence of experience and values on individuals' construction of knowledge, but no statements were made by either group that reflected the belief that knowledge is constructed through the integration of knowledge with experience and reason.

The contradictions between the participants statements about knowledge and their conflicting views of the roles that teachers play align with the findings of Cheng, (2005) who found that many preservice teachers expressed sophisticated epistemological beliefs associated with constructivist approach to teaching, but that those beliefs were not always reflected when they described their conceptions of teaching. The lack of consistency in the epistemological beliefs expressed by the participants and the fact that the findings did not show significant differences in the epistemological beliefs of the two groups suggest that the preservice teachers studies may not develop more sophisticated beliefs during their time in the teacher education program, even though Fisher and Rush (2008) found that the development of sophisticated epistemological beliefs is necessary if preservice teachers are to become reflective practitioners capable of fostering the development of critical competencies among K-8 students.

Comparing the Findings to Studies of the Construction of Normative Teacher Identity Among Preservice Teachers

As proposed by Britzman in *Practice Makes Practice* (2003), the responses of the participants to the last four survey items suggest that preservice teachers' beliefs about identity are created through the performance of discursive practices that recreate and reinvent a teacher identity based upon pervasive cultural myths. Britzman proposed three myths that make it possible for teachers to accept without question contradictory discourses on authority, knowledge and identity (Britzman, 2003; Diniz-Pereira, 2003): (1) Everything depends on the teacher, (2) The teacher is the expert, and (3) The teacher is self-made.

The responses of the participants in Group B most closely align with Britzman's description of the first myth, "everything depends on the teacher." Seventeen percent of the statements given by participants in this group in Items VII and VIII explicitly referred to the teacher as "important" to the community and to American society. The participants in both groups asserted that teachers shape the future and serve as role models to children and adults alike, with one participant stating, "Teachers are the foundation of a community. Without them, there would be no learning and knowing new information." This participant clearly constructs the teacher as the essential component in student learning. This myth of teacher identity also conceptualizes the teacher as a transmitter of knowledge, a belief about teacher identity that was also expressed by preservice teachers in both groups in response to Items VII and VIII. This myth requires the believer to imagine the teacher working in "heroic isolation." The responses of both groups to Item VI, which required the participants to describe the characteristics of the ideal teacher, revealed that while the preservice teachers surveyed believe that teachers should possess qualities that prepare them to work in a profession that is demanding, they do not need traits or skills that will prepare them to collaborate professionally with other adults.

According to Welker (1992), when the second myth, "the teacher is the expert," is combined with the belief that everything depends on the teacher, an "expert" can be understood, not as one who holds a great deal of knowledge, but as one who holds the power of moral authority and technical competence. The participants' description of the ideal teacher revealed beliefs that are consistent with Welker's assertions. Of the 153

statements made in response to Item VI, only 11 statements, or 7%, referred to knowledge that should be held by the teacher. When the participants described the role of the teacher in community and society, both groups expressed the idea that expertise is demonstrated by moral authority. Participants stated that “The ideal teacher should have positive values and good morals and judgment” and that “[Teachers] should be a role model for the children in the community and an inspiration for other adults.”

According to Britzman, the third myth, “teachers are self-made,” is often expressed by preservice teachers as they describe themselves or others as “born to teach.” The descriptions of the ideal teacher offered by the participants suggest that they hold beliefs consistent with this myth as well. The vast majority of characteristics that the participants felt the ideal teacher should hold were personality traits, characteristics that are inherent in individuals. Only one student made any reference to a teacher’s preparation, stating only that an ideal teacher should be “educated.”

Examining The Influence Of Teacher Preparation Programs On Preservice Teachers

Like most preservice teachers, the participants in this study joined the teacher education program having had many years of schooling in which to construct their conceptions of teacher identity and epistemological beliefs in what Lortie (1975) called “the apprenticeship of observation” (Chong & Low, 2009; McDiarmid, 1990; Nespor, 1987; Pajares, 1992). The fact that these are firmly established by the time a teacher candidate enrolls in a teacher education program is made evident by the fact there are so few differences between the beliefs held by the two groups (Pajares, 1992). Although the preservice teachers in Group B have been introduced to learning theories that are

inconsistent with the beliefs about knowledge and teaching they held as children, the only time the discourses of the theory and method of teacher education appeared in the findings is when a discursive reflex was triggered by Item IX, *Describe the role of the teacher in the classroom*. Again and again, they expressed constructivist values, but made statements about knowledge and teaching that are inconsistent with constructivist epistemology. This suggests that, while they may have received the language of constructivist discourses of teaching and learning during their time in the program, they have not actually developed the epistemological sophistication to recognize that their beliefs about knowledge and teaching are conflicting and contradictory. These findings are consistent with research that has shown that teacher education programs have little impact on preservice teachers' beliefs regarding either knowledge *or* identity (Wideen, Mayer-Smith, & Moon, 1998). When one considers that these beliefs represent the cognitive filter through which all knowledge and experiences are processed, the implications for future instructional practice and K-12 student outcomes are profound. As long as preservice teachers simply receive the language of constructivist discourses and pass through teacher education programs having never considered the contradictions inherent in the beliefs they hold about knowledge and teaching, possibilities for pedagogical innovation in K-12 education will remain limited to the current boundaries of education discourse communities.

CONCLUSIONS

This chapter provides an overview of the purpose, methods, and findings of this study. It also suggests possible conclusions resulting from these findings as well as provides suggestions for further research.

Statement of the Problem

I proposed to explore the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher preparation program. There were several subproblems that were addressed in the process of investigating the complex relationship between these beliefs. In order to understand the relationship between the epistemological beliefs and beliefs regarding teacher identity, it was first necessary to identify, describe, and compare the epistemological beliefs held by preservice teachers at different points in the teacher preparation program and to similarly investigate beliefs regarding normative teacher identity held by preservice teachers at these same points in the program.

Statement of the Purpose

The purpose of the study was to examine the relationship between the epistemological beliefs and beliefs regarding normative teacher identity held by preservice teachers at Montana State University. I sought to explore the relationship between these two categories of belief, which developed concurrently when the

preservice teachers were themselves elementary students (Pajares, 1992), and to compare the beliefs held by preservice teachers at different points of the teacher education program. The study explored the beliefs of students belonging to two groups: elementary education majors in their first year and elementary education majors enrolled in a social studies methods course who are scheduled to student teach in less than one year.

Research Questions

This study was guided by the following research questions:

- (1) What are the epistemological beliefs of preservice teachers at different points in the teacher education program?
- (2) What beliefs regarding normative teacher identity do preservice teachers hold at different points in the teacher education program?
- (3) What is the relationship between preservice teachers' epistemological beliefs and their beliefs regarding normative teacher identity at different points in the teacher education program?

Method

This was a phenomenological study based on content analysis of responses given to a survey instrument designed to explore the epistemological beliefs and conceptions of teacher identity held by preservice teacher in the teacher education program at Montana State University. There were 40 participants in the study. For this study, anonymous survey data was collected from two groups. The first group, Group A, was comprised of

16 students enrolled in one of two sections of an introductory epistemology class designed for education majors. The second group, Group B, was made up of 24 students enrolled in the social studies methods course for elementary education majors in which I am the instructor.

Data Collection and Verification of Findings

A survey instrument was developed for this phenomenological study. The participants responded to a series of questions designed to gather data concerning their beliefs regarding teacher identity, as well as their epistemological beliefs. The short-answer items designed to explore preservice teachers' conceptions of teacher identity were developed to encourage participants to consider the role of the teacher from multiple perspectives. The consideration of teacher identity from multiple perspectives was encouraged in order to provide the researcher with the opportunity to identify and explore emerging contradictory responses. Considerations of contradictions found within and among multiple discourses are an essential part of working within a poststructuralist theoretical framework.

Two types of items were developed to explore the participants' epistemological beliefs. First, a series of Likert scale items were adapted from the Epistemic Preference Indicator (EPI), which was developed by Martin Eisenberger (Eisenberger, Critchley, & Sealander, 2007). These items were chosen because the categories of epistemic preference they are intended to measure promised to offer insight into the participants' beliefs about knowledge, justification, and rational explanation. Short answer items were developed to gain further insight into the responses given to the Likert scale Items. The

framework used to develop these items, which is adapted from Paul Boghossian's comparison of objectivist and constructivist epistemologies found in *Fear of Knowledge* (2006, p. 22).

The study was designed to align with the measures of trustworthiness developed by Arminio & Hultgren (2002). Validity tests recommended by Maxwell (2005) were used to further strengthen the validity of the study, including searching for negative and discrepant cases during analysis and using quasi-statistics in the discussion of findings.

Data Analysis

Data analysis proceeded according to the steps of phenomenological content analysis described by Creswell (2007). "Significant statements" were identified and organized into "clusters of meaning," or themes (Creswell, 2007, p. 61). During the process of content analysis, themes were identified as patterns of similarity and divergence emerged in the responses to the survey instrument. These themes were used to interpret and describe the participants epistemological beliefs and beliefs regarding normative teacher identity, as well as the relationship between these two categories of belief. Finally, the themes were synthesized and the common underlying structure of the participants' beliefs was described.

Results

Research Question I: What are the Epistemological Beliefs of Preservice Teachers at Different Points in the Teacher Education Program?

The first five items on the survey instrument were designed to examine the epistemological beliefs of the participants in three areas: (1) Beliefs about the nature of knowledge, (2) Beliefs about justification, and (3) Beliefs about rational explanation. The participants in both groups made statements that suggest they simultaneously hold naïve and sophisticated epistemological beliefs. The beliefs expressed by the preservice teachers in both groups were contradictory within and across categories of belief.

The Participants' Beliefs Regarding the Nature of Knowledge

When asked to consider whether knowledge exists independent of the mind or is socially constructed, participants in both groups expressed agreement with the idea that knowledge can exist that is true for everyone and strong disagreement with the idea that knowledge exists only within individuals or social groups. The beliefs expressed in response to this question suggest that the participants hold objectivist epistemological beliefs that are inconsistent with constructivist epistemologies. When asked to discuss whether individuals can possess different truths, however, the overwhelming majority of participants in both groups express agreement with the idea that different truths can exist within individuals and explicate that belief by discussing the how unique experiences of individuals are used to create those truths. The beliefs expressed in response to this question are reflective of constructivist epistemologies. Finally, the participants were

asked whether certain knowledge is possible. The majority of the responses given by the participants suggest that they believe that certain knowledge is possible. While 10% of participants expressed the belief that certain knowledge is basically impossible, the skeptical underpinnings of constructivism do not appear in the responses of the majority of the responses.

The Participants' Beliefs about the Nature of Justification and Rational Explanation

When asked to discuss whether the truths held by individuals are equally valuable, the participants in both groups expressed the belief that truth should be evaluated with contingent needs and interests in mind. Sixty-nine percent of the preservice teachers in Group A and 68% of those in Group B expressed the belief that all truths held by individuals are equally valuable. Several statements suggested the belief that it is somehow wrong to evaluate the truth of the beliefs held by others. Only two respondents indicated a belief that the value of a truth held by an individual should be evaluated using evidence or reason. Nearly all of the preservice teachers surveyed expressed epistemological beliefs about justification that align with relativist and constructivist epistemologies.

When asked how they evaluate the value of an idea, however, the participants gave responses that directly contradict the beliefs expressed above. All of the participants in Group A and 78% of those in Group B indicated that they use evidence or reason to determine an idea's value, rather than evaluating truth value empathetically and in consideration of the contingent interests and unique experiences of the truth-holder in mind. These responses suggest that the participants believe that evidence alone can be

sufficient to explain a belief, a finding that indicates that the participants hold objectivist beliefs regarding justification.

Comparing the Epistemological Beliefs of the Two Groups

Though the preservice teachers in Group B, those who are currently enrolled in methods classes, expressed beliefs about the nature of knowledge that are homogenous and certain than those expressed by the freshman and sophomores in Group A, analysis of the responses given by both groups of participants does not suggest that the groups hold epistemological beliefs that are significantly different. The preservice teachers in both groups simultaneously hold naïve and sophisticated epistemological beliefs, beliefs that contradict each other. In fact, the contradictions found in the analysis of the epistemological beliefs of the participants in both groups follow a nearly identical pattern. The similarity of the expressed beliefs of the two groups suggests that epistemic development does not take place over the course of the teacher education program.

Research Question II: What Beliefs Regarding Normative Teacher Identity Do Preservice Teachers Hold at Different Points in the Teacher Education Program?

In order to explore the preservice teachers' beliefs about identity, I asked the participants both groups to describe the ideal qualities of a teacher and to describe the role of the teacher in the classroom, in the community, and in American society. The responses of the participants to the survey items regarding teacher identity suggest that preservice teachers' beliefs about identity have been shaped by pervasive cultural myths about teaching, and that those myths are recreated by the discourses of teacher identity that are performed in teacher education programs. These beliefs closely aligned with the

myths of teacher identity proposed by Britzman (2003): (1) Everything depends on the teacher, (2) The teacher is the expert, and (3) Teachers are self-made.

Everything Depends on the Teacher

While both groups gave responses that suggest that the participants believe that everything that takes place in the classroom lies within the teacher's domain, the responses of the participants in Group B most closely align with the myth that "everything depends on the teacher." Twelve statements were made by this groups that explicitly referred to the teacher as "important" to the community and to American society. All of the preservice teachers surveyed made at least one statement expressing the belief that teachers shape the future and serve as role models to their students and to their communities. This myth of teacher identity also conceptualizes the teacher as a transmitter of knowledge, a belief about teacher identity that was also expressed by preservice teachers in both groups. The responses of the participants suggest that they have been influenced by the myth that teachers work in "heroic isolation." When asked to describe the characteristics of the ideal teacher, the participants' made statements that suggest they believe that teachers should possess qualities that prepare them to work in a profession that is demanding. Since only one participant mentioned characteristics that will help teachers to work successfully with other adults, it is possible to infer that the participants believe that they do not need traits or skills that will prepare them to collaborate professionally with other adults.

The Teacher is the Expert

The conceptions of the teacher “expertise” suggested by the participants’ responses align with the definition of ‘expert’ offered by Welker (1992). Welker proposed that teachers believe that the expert is not one who holds a great deal of knowledge, but one who holds the power of moral authority and technical competence. Of the 153 statements offered in when asked to describe the characteristics of the ideal teacher, only 11 statements made mention of knowledge. The idea that expertise is demonstrated by moral authority was expressed by both groups. Participants made statement regarding the values and morals and judgment that teachers should possess, asserted that they should be a role model for the children in the community, and suggested that it is the teachers’ role to model positive values that parents might not.

Teachers are Self-made

When asked to describe the characteristics of the ideal teacher, the participants offered responses which suggest they believe that the most important characteristics of the ideal teacher are characteristics that are inherent aspects of the teacher’s personality. Analysis of the participants’ responses revealed three types of dispositions that should be held by the “ideal teacher.” These dispositions included personality traits, values, and professional characteristics. When asked to name the characteristics of the ideal teacher, participants most often cited personality traits that are inherent in the teacher and most likely existed within the teacher prior to entry in a teacher education program, most commonly describing the ideal teacher as “fun,” enthusiastic,” “caring,” “loving,” nice,” “honest,” and “good with kids.” In response to this item, preservice teacher in Group B

also cited values, such as “good morals” and “valuing education.” Professional characteristics not specific to teaching, such as punctuality and dependability, were also mentioned. No mention was made of any characteristic that may have been developed over the course of the teacher education program, other than one participant’s statement that teachers should be “educated.”

Research Question III: What is the Relationship between Preservice Teachers’ Epistemological Beliefs and Their Beliefs Regarding Normative Teacher Identity at Different Points in the Teacher Education Program?

Though analysis of the data collected did not allow me to draw firm conclusions about the relationship between the preservice teachers’ epistemological beliefs and their beliefs regarding normative teacher identity, two possible explanations emerged that could offer insight into why preservice teachers seem to accept without question contradictory discourses knowledge and identity. It is possible that, in order to maintain the belief that the teachers are natural experts on which all learning depends, preservice teachers must simultaneously hold naïve and sophisticated epistemological beliefs. In order to believe that teachers are experts and that everything depends on the teacher, elements of both objectivist and constructivist epistemologies must be invoked. The data collected in this study suggest the preservice teachers surveyed express conflicting epistemological beliefs because they are preoccupied with assuming the identity of the teacher, and will express whatever epistemological belief they feel supports the element of mythic teacher identity that is currently under consideration.

Analysis of the data may suggest that preservice teachers surveyed are not, in fact, expressing their own epistemological beliefs and beliefs about teacher identity, but are

instead performing a series of shifting discourses of teacher identity that contain discourses of knowledge. The homogeneity of responses given by Group B suggests that preservice teachers may be learning to negotiate the boundaries of epistemological and identity discourses that both reinforce and challenge the pervasive cultural myths of the teacher during of the their time in the teacher education program. These participants frequently made statements of epistemological belief and teacher identity that are contradictory without ever acknowledging or attempting to explain these contradictions. This may suggest that they may not have actually developed their own beliefs through a process of consideration or inquiry, but have received them during their time in the teacher preparation program.

Recommendations for Course Design and Instruction

Providing Opportunities for Epistemic Development

According to Bondy, because preservice teachers' epistemologies determine their futures instructional practices, the pedagogical practices of teacher educators should be transformative opportunities designed to address resistance to epistemic growth (2007). Pajares (1992) wrote that beliefs about knowledge and teacher identity are formed concurrently over the course of years of exposure to educational practices, and that since these beliefs are interwoven components of a central belief structure which began to develop preservice teachers were young, they are particularly resistant to change. Studies have found that found that preservice teachers' beliefs can be changed by being repeatedly challenged through the creation of cognitive dissonance as part of the teacher education program (Pajares, 1992; Alsup, 2006).

Fisher and Rush (2008) described instructional models for the teacher education classroom that are designed to disrupt the tendency of preservice teachers to approach learning as “passive receptors of knowledge.” Brownlee (2001) suggests that since epistemological beliefs are best changed through explicit reflection and focused intervention. Bondy and her colleagues (2007) found that when teacher educators make multiple perspectives readily apparent during the course of instruction, preservice teachers readily adapted their epistemic worldviews to accommodate and consider multiplicities of knowledge. They also found that teacher candidates placed value upon experiences that they felt were applicable to their future teaching practice.

Because a preservice teacher’s epistemological beliefs and beliefs about identity form the boundaries of his or her worldview, interventions focused on reflection upon theory and practice will continue to be ineffective as long as the preservice teachers continue to reflect through the lens of undeveloped epistemological beliefs situated within the context of a received teacher identity. Epistemic intervention in the teacher education classroom may be most effective if faculty can make the relationship between epistemological beliefs and the effectiveness of instructional practice visible to students as they reflect upon the education theory and field experiences (Bondy et. al., 2007). This may be most effective if students have opportunities to develop an understanding of multiple epistemologies and knowledge types and to apply those understandings of knowledge to subsequent explorations of theory and practice in teacher education coursework.

Creating Identity Dissonance

Alsup (2006) proposes that epistemic development could be hindered by emphasis placed on the performance of a socially constructed normative teacher identity within teacher preparation programs. She suggests creating opportunities for identity dissonance may help students to not only develop conceptions of teacher identity that make room for conversations of pedagogical innovation in teacher identity discourses but to develop more sophisticated epistemologies, as well (Alsup, 2006). Chong and Low (2008) found that teacher candidates are preoccupied with assuming the identity of ‘teacher’. Since the responses of the participants suggest that preservice teachers are well-versed in the discourses of authority and knowledge that are intertwined with their conceptions of the teacher-self, and that these beliefs are only reinforced throughout their time in teacher education program, it falls to teacher educators to expand the boundaries of teacher identity discourses by making the contradictions inherent in the myths of the ideal teacher visible to their students, thereby empowering the students to subjectively recreate and expand normative teacher identity. Britzman states, “Discourse positions the subject in a dual way: in relation to what and how something is said and in relation to a community that makes particular practices possible and others unavailable” (2003, p. 39). This positioning has the power to create and recreate the boundaries of preservice teachers’ conceptions of both knowledge and self (Larson & Phillips, 2005). Making the education discourses inhabited by preservice teachers visible through a process of the creation and guided resolution of teacher identity dissonance may strip discourses of teacher identity of their power to silence the novice teacher’s impulse toward innovation,

and empower them to expand the boundaries of education discourses by making new language and practices available.

Suggestions for Further Research

The results of this study led to the development of questions for further investigation.

1. A qualitative study could be conducted to further explore the relationship between preservice teachers' epistemological beliefs and conceptions of teacher identity in order to determine avenues for creating cognitive and identity dissonance in teacher education classrooms.
2. Quantitative methods could be used to determine the effectiveness of epistemic interventions at different stages in the teacher education program.
3. A qualitative study could be developed to investigate the discourses of teacher identity that students experience in teacher education courses and in field practicum experiences.
4. A qualitative study could be developed to identify the epistemological models underlying the instructional practices of faculty in teacher education courses and of cooperating teachers and supervisors in field practicum experiences.

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APPENDIX A
SURVEY INSTRUMENT

Item I

The items below are organized in pairs and have to do with your preferred ways of dealing with certain questions, problems, or issues. Compare the 'a' and 'b' options, then indicate to what degree **each** statement reflects the way you generally believe, feel, or act. Respond to both options using the following scale:

- 1 if you **completely** disagree with the statement
- 2 if you **mostly disagree** with the statement
- 3 if you are in between
- 4 if you **mostly agree** with the statement
- 5 if you **completely agree** with the statement

Please consider both 'a' and 'b' responses before responding.

#	1	2	3	4	5
1 Truth can exist about an object or idea before someone learns about it.	<input type="radio"/>				
2 Truth is created when a person learns about an object or idea.	<input type="radio"/>				

Item II

Do you believe that different people have different truths?

Item III

Are All Truths Held by Individuals Equally Valuable?

Item IV

When evaluating ideas, how do you most often decide which ones are valuable?

Item V

The items below are organized in pairs and have to do with your preferred ways of dealing with certain questions, problems, or issues. Compare the 'a' and 'b' options, then

indicate to what degree **each** statement reflects the way you generally believe, feel, or act. Respond to both options using the following scale:

1 if you *completely* disagree with the statement

2 if you *mostly disagree* with the statement

3 if you are in between

4 if you *mostly agree* with the statement

5 if you *completely agree* with the statement

Please consider both 'a' and 'b' responses before responding.

#	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Certain knowledge:					
1					
a)	is basically impossible – nothing is really the way you think it is				
Certain knowledge:					
2					
b)	is completely possible – just open your ears and eyes				

Item VI

Describe the ideal qualities of an elementary teacher.

Item VII

What is the role of teachers in a community?

Item VIII

How do teachers contribute to America's success?

Item IX

What is the role of the teacher in the classroom?